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SEVEN DECADES OF PLANNING AND DEVELOPMENT IN THE LOS ANGELES REGION: GENERAL WILLIAM J. FOX

Interviewed by Edward A. Holden

Completed under the auspices
of the
Oral History Program
University of California
Los Angeles

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CONTENTS

BIOGRAPHICAL SUMMARY

PERSONAL HISTORY:

Born: December 23, 1897, Trenton, New Jersey.

Education: School of Industrial Arts, Trenton, New Jersey; International Correspondence School; B.S., civil engineering, University of Southern California, 1937.

Spouse: Lillian R. Fox, married April 1929; died 1975; two children.

CAREER HISTORY:

Drafting:

DeLaval Steam Turbine Company, Trenton, New Jersey, 1915-17.

Public Services Corporation, Trenton, New Jersey, 1917.

Surveying:

New Jersey State Highway Commission, 1917.

DuPont Engineering Company, City Point, Tennessee, 1917.

Tennessee Coal and Iron Company, Fairfield, Alabama, 1917.

Kamahamaha Highway Project, Oahu, Hawaii, 1920-21.

Gerlich Brothers, Monrovia, California, 1922.

Engineering and City Planning:

City engineer and chief engineer, Municipal Water Department, South Pasadena, California, 1923-26.

Chief engineer and director, Regional Planning Commission, Los Angeles County, California, 1926-47.

Chief engineer, Department of Building and Safety, Los Angeles County, California, 1933-55.

Coordinator of public works and grants, Los Angeles County, California, 1933-55.

California State Planning Commission, 1934-37.

Director, Department of Aviation, Los Angeles County, California, 1946-55.

County engineer, Los Angeles County, California, 1947-55.

Engineering consultant to Albert C. Martin and Associates, Los Angeles, California, 1955-59.

AFFILIATIONS:

City and County Engineers Association, Los Angeles, secretary, president.

MILITARY SERVICE:

United States Army, private, 1918; corporal, 1918; sergeant, 1918-26; second lieutenant, 1926-29; first lieutenant, 1929-32; resigned commission, 1932.

United States Marine Corps, first lieutenant, 1932-33; captain, 1933-38; major, 1938-42; lieutenant colonel, 1942; colonel, 1942-47; brigadier general, 1947; retired, 1947.

Commanding officer, Henderson Field and Marine Air Base, Guadalcanal, 1942-43.

Chief of staff for the commanding general, Fourth Marine Aircraft Wing, Gilbert Islands, 1945.

Honors: Air Medal; Legion of Merit; Distinguished Flying Cross; Purple Heart.

INTERVIEW HISTORY

INTERVIEWER:

Edward A. Holden. M.S., Public Administration and City Planning, University of Southern California; Consultant in City and Regional Planning; Director of Planning, Southern California Association of Governments (retired); Principal Regional Planner, Los Angeles County (retired); Chairman, Board of Directors, Los Angeles Regional Planning History Group.

TIME AND SETTING OF INTERVIEW:

Place: Fox's home, Fillmore, California.

Dates, length of sessions: July 11, 1985 (90 minutes); July 15, 1985 (150); July 17, 1985 (45).

Total number of recorded hours: 4.75

Persons present during interview: Fox and Holden.

CONDUCT OF INTERVIEW:

This interview is one in a series entitled Seven Decades of Planning and Development in the Los Angeles Region, initiated by the Los Angeles Regional Planning History Group and completed in cooperation with the UCLA Oral History Program. The goal of the series is the preservation of recollections of key urban planners in both public and private sectors and of documents critical to the understanding of the events and concepts that have influenced the emergence of Los Angeles as a pacesetting example of urban development. The interviews in this series, along with printed, manuscript, and pictorial sources, will be used by the Los Angeles Regional Planning History Group and others to disseminate the history and impact of planning and development in the Los Angeles region and should be of value as a resource in training future urban planners.

Holden's correspondence with Fox produced a comprehensive résumé of his employment history, education, and early family activities. Holden also reviewed early annual reports of the Los Angeles County Regional Planning Commission and related documents. In addition, Holden was personally familiar with aspects of Fox's work while he was chief engineer for the regional

planning commission and subsequently for the County of Los Angeles during the late forties and early fifties.

The interview is arranged chronologically, focused primarily on Fox's career as chief engineer for the planning commission from the late twenties through the mid-fifties. At Fox's request, minimal time was devoted to his distinguished military service, which spanned both world wars, and to his activities since retiring from Los Angeles County government service in 1955.

EDITING:

Bryce Little, editor, edited the interview. He checked the verbatim transcript of the interview against the original tape recordings, edited for punctuation, paragraphing, and spelling, and verified proper names. Words and phrases inserted by the editor have been bracketed. The final manuscript remains in the same order as the taped material.

In January 1988, the edited transcript was sent to Fox, who reviewed and approved it after making some corrections and additions. He returned the transcript in the spring of 1988.

Rebecca Ziegler, Graduate School of Library and Information Science intern, prepared the table of contents, biographical summary, and interview history. Paul Winters, editorial assistant, prepared the index.

SUPPORTING DOCUMENTS:

The original tape recordings of the interview are in the university archives and are available under the regulations governing the use of permanent noncurrent records of the university. Records relating to the interview are located in the office of the UCLA Oral History Program.

TAPE NUMBER: I, SIDE ONE

JULY 11, 1985

HOLDEN: The first thing, General Fox, that I would like to get into is a little of the story of your birth and early life and where you came from, how you developed the qualifications for the positions that you later held.

FOX: Well, I was born in Trenton, New Jersey, on December 23, 1897. I think my boyhood was a very adventurous type. It was in a little town. Trenton at that time was a small community, although it's the capital of the state. But we lived on the outskirts of the town and we had open country to play in, and I think we had a very adventurous and a very wonderful boyhood. I went to grammar schools until the fifth grade and then went to the Catholic high school, Saint Joseph's School, in Trenton, New Jersey. Also, I started out as an apprentice carpenter, and finished my apprenticeship and became the journeyman carpenter.

But all during that time, I was also going to night school. My mother [Elizabeth Mulurine Fox] wanted me to be an artist. I showed ability to draw well, and, actually, I think a drawing of Lincoln at one time was so much like him it inspired my mother to send me to art school: School of Industrial Arts in Trenton, New Jersey, a state institution. But I soon learned, even as a young boy, that

I didn't think that I was ever going to earn a living as an artist, although I loved the work and I became quite proficient in the use of charcoal, doing a little still life and working with models.

But in going through the school one time, I saw in a drafting room on one of the floors some very busy man working with T squares and drawing instruments. It fascinated me. It looked to me like something real businesslike and something that was more in keeping with an opportunity for a youngster to earn a living. I was only then about thirteen or fourteen years old. I went to the director of the school, Dr. [Frank J.] Fredericks, and asked him to transfer me to that school, that class. That was a class in architectural and mechanical draftsmanship. I went there for five years and graduated with a diploma. I became what I thought was a proficient draftsman.

About that time, I received an injury in my apprenticeship in being a carpenter and had to leave the carpentry work. I then got a job with the DeLaval Steam Turbine Company, a Swiss outfit in Trenton, New Jersey. I thought I was a pretty hot draftsman, with my artistic ability and my diploma from the state school of arts. But they only would hire me as a tracer. I think that was one of the most fortunate decisions that I made, because I then really began to learn the real skills of drafting. My

drafting board was right next to a designer, and I could look over and peek at his work and see what real technique of drawing really was about. The instructor in that drafting room pointed out to me the necessity for me to build up my standard of skills to where my drawings would be like a picture. I became then in time, I think, a skilled, expert draftsman. But I still had the title of tracer, and that irked me a little bit.

But in due time I found an opportunity to get a job as a draftsman with the Public Services Corporation of Trenton. And strangely enough, it was boring me to death. Although I had the title of draftsman and had a pretty fair salary, all I was doing was drawing telephone and electric poles with crossarms on them. That was the extent of my work. Any boy or any unskilled youngster could have done that job just as well. We had about four or five other draftsmen. They were all doing the same thing. But yet that was the turning point in my life, I think, and the beginning of my engineering career, because right in the middle of my drafting-- Am I going all right?

HOLDEN: Fine.

FOX: The Camp Dix training camp was now being developed, because war was imminent. This was about 1917, or late 1916 possibly. Mr. Hightower, [who was] the chief engineer of the Public Services Corporation and my boss, came to us

one day and said, "Fellows, we're going down to Camp Dix and lay out the power lines and the power setup for that great training camp. They're going to have a great army training camp there." All it was then was just open country, a big field. He became the chief of the survey party, and I became the axman, rodman, and chainman of the party. Then's when the bug really bit me deep. I fell in love with surveying, and I stayed with the Public Services Corporation until that job of surveying was finished.

But the bug had bitten, and when that job was finished I didn't want to go back to drawing little old telephone poles with crossarms on it. I then got a job with the New Jersey State Highway Commission, which was beginning to lay out the highway system for the state of New Jersey. I was then a rodman and axman in that survey party. The chief of the party was a graduate engineer from Cornell [University], and the transitman was a graduate from Princeton University. Well, I began to learn the rudiments of how you went about to make surveys. I was a chainman, rodman, and axman, but I had a zest to learn. There was one other [chainman] in the party; there were just two like me in the survey party. Both chainmen, a transitman, and a chief of party--in other words it was a four-man survey party. But during the wintertime when it got very bitter cold, the transitman didn't want to stand back of the

transit and level. By the way, we did level work and transit work. He only gave me a chance to operate the level because it was so cold. He would take the ax and do the rodman and chainman work. I would take advantage of the opportunity, even though being cold, because I could stand behind that level. I grew big there, operating that level. Then came the same chance with the transit. I became, really, an amateur transitman. I began to learn what a transit was and how you operate it in a survey party.

That was just a beginning. I was making progress. Then to make it more conducive to a career in surveying, I then took correspondence courses with the International Correspondence School in Scranton, Pennsylvania. They sent those lessons to me. And, by the way, we were now moving from farmhouse to farmhouse all over the state of New Jersey at that time.

HOLDEN: You were about what age? About twenty?

FOX: Yes, two years older than the year, about nineteen or twenty. It was 1918. I'd be nineteen or twenty years old. Just remember that's two years more than the date, if at any time we speak about age.

That was a great adventure. We went from town to town in bitter cold weather with snow and ice and sleet. We still went all through the winters to complete those

surveys. I am frank to tell you I suffered from the sleet and cold, but I learned a lot. My chief of party was a very fine man, and so was the graduate of Princeton. They were interested in their axmen and rodmen, and they gave me a chance to learn everything I could.

Then, with my International Correspondence School work, I was taken back into the fundamentals of algebra, trigonometry, geometry, and so forth, to keep up in my surveying work. They'd tell me that anyone who has the temerity, dexterity, and concentration to finish an International Correspondence School course has got to be something exceptional. I kind of believed it, I was so interested in it all. Their instruction was excellent. Their books were excellent. As we students sent our lessons back, they were personally marked with comments by a very learned instructor who I never met. I knew him only through my lessons.

That was the beginning. I was now determined to follow a surveying career. I never expected to ever be called an engineer, although I used to read about them. I used to experience a big thrill if I was in the same room with them--an engineer! He just always looked different to me. I idolized them. I worshipped the name. And yet I knew it would be a long ways away for me, if ever, to reach. It sounds like a Horatio Alger story, and it was.

From the New Jersey State Highway Commission, I had another opportunity. World War I was now beginning to come on the horizon, and I got a job with the DuPont Engineering Company. They were building a plant at City Point, Tennessee, just outside of Nashville. I had the temerity to say I was a transitman. They sent me down to City Point as a transitman. I carried my weight. Wasn't too difficult by then, because we had a fine chief of party there at City Point outside of Nashville, where they were building this plant. We were laying out railroads. I had no experience then about surveying railroads. And I learned it all from this fine southerner, the chief of party. I ran the transit, actually; he was the brains behind it. But I began to learn. It was a thrilling experience. I boarded there, in Nashville. My roommate there was a forester. We used to travel out to the survey site together in the morning on a truck furnished by DuPont Engineering Company. I stayed until all surveying was completed.

I went from there, when that job was finished, and got a job with the Tennessee Coal and Iron Company in Fairfield, Alabama, about outside of Birmingham, near Ensley. Fairfield was a new town, and they were building a brand-new plant for the TCI Company. I lived in a hotel at the little town of Fairfield. Here again I was a

transitman. I had a wonderful chief of party, and we worked well together.

We were laying out a very high-precision baseline for the steelwork that was later to be erected. The measurements had to be so precise and the alignment so exact that we would actually use a knife blade to mark the distances and align brass bolts in concrete on the baseline. Got the idea? In other words, when we would make a duplicate check, we had to hit that same knife blade in order to be right on. And the reason for that having to be exact was because the steelwork had to be fabricated miles and miles and miles away. So they had to have those dimensions accurate. They had to figure on the difference of temperature where it was manufactured, the difference of temperature where it was transported to, and the difference of temperature at the time it was to be erected.

It was a precision job. I liked that. That became my creed as an engineer. And that began also-- Again, the reason I mention it [is] that built into my system the word **precision.** From that time on everything had to be precise. That served as a rule and as a guide to many things. It became part of my thinking. I believe it was all born then and those were all career steps that followed. All these were little steps that were building in a personality, a way of thinking, and a habit. I was so

busy and in love with my work. Time meant nothing.

But sadly, on top of all that, I'd come down with rheumatism in a Fairfield, Alabama, hotel.

HOLDEN: Can I interrupt you to ask you a question here?

FOX: Yes.

HOLDEN: Actually, between then and now there have been some differences in how you do things. What you're saying, in effect, is that with this idea of precision you did things back in 1917 that are virtually the same precision as you would do today? Is that--?

FOX: I think yes. I think that doing things with precision was the essence of my thinking and doing. Even in flying, carriers and combat flying are the most precise methods of flying. There's an old, old saying that accidents are not [habit-]forming in that business, because the first one's the last, and if you want to live, they're not habit-forming. So with that, it began to become a criteria in everything I did, because the end demanded no less. It was required by my perfectionist personality. [In] so many things I got mixed up in, precision projects made the difference sometimes. Not just with the success of the job, because sometimes it might be my life or my health or my career. In aviation I could have lost my life by inaccurate flying. I'll get to that all later.

As I was saying, I went to a hospital from

Fairfield. At the Birmingham hospital, in a ward paid for by the company, they took my tonsils out. When I come back to the job, the district engineer for the Tennessee Coal and Iron Company called me in and said, "Young man, I want to tell you this isn't the place for you. It's damp down here. With rheumatism, you're just going to have another attack. Why don't you get out of here and go out West where the sun is."

Well, I said-- I think his name was Ransom, but I never could remember. I wanted to later thank him for what he did for me. I wrote a letter back. I never got any answers. Anyhow, I said, "Sir, I can't afford to go out West."

He said, "The company's going to pay you for all the time you're in the hospital." Well, I was aghast. I never expected anything like that. He said, "Why don't you take that money and go out West."

"Well," I said, "thank you very much, sir. I'll think about it."

Well, as soon as I got my money, I thought about it and acted on it. I got onto a Southern Railroad Company train, which, by the way-- At that time all railroads down in the South were fired by wood. There was no coal. It had a wood-fire engine. And that little old train took me down to New Orleans. In New Orleans I was to transfer from

the Southern Railroad to the Southern Pacific [Railroad] for a ride to California. I'd gotten my ticket at the railroad station, and then I got my first big thrill about aviation. At that time they had just finished a class of aviators at Kelly Field [San Antonio, Texas]. They were being shipped overseas or somewhere, because they all arrived at the station, and I had eyes as big as saucers. I'd see these wonderful, fine-looking young men in their new uniforms and beautiful silver wings on their breast. I was in awe. I never, never, never thought-- Here I was a rheumatic young man. I was very thin at that time, very, very thin, maybe because of my illness with the rheumatism and just coming out of the hospital. But what I saw gave me a great thrill. I looked at these young men in awe. I put that scene back in my memory, and I put it in the story for what it's worth.

I got onto the Southern Pacific Railroad. Oh, before I left, the engineer of Tennessee Coal and Iron Company said to me, "I'll give you a letter to a friend of mine out in California that I think will give you a job. His name is John McMillan. He's an engineer. We were college graduates. See him when you get out there." And he gave me a letter. The address was Terminal Building, Los Angeles.

So I go onto Southern Pacific Railroad. It was a hot,

boiling trip across the country. There was no air-conditioning then. Going through Texas and New Mexico, the steel cars got so hot you couldn't put your hand onto any part of it. I met a young man on the train--here again, good fortune. His name was Lewis Ziversky. I tried to locate him later because I borrowed four dollars from him when I was broke in California and wanted to pay it back, but never could find him. He was from Saint Louis. Mr. Ziversky was a photographer. He had a very expensive camera. On the [train] we met a gentleman who came over to where we were sitting, a very distinguished man. He wanted to buy that camera from Mr. Ziversky, who said, "But that's my business, my living, and I can't sell it." But the gentleman said, "If you ever have a wish to sell it, here's my card. I'm general manager of Union Oil Company of California, and my office is in the Union Oil Building in Los Angeles." So we took his card and frankly forgot about it, because he had no intention of selling that camera at that time.

When we got to Los Angeles, we bunked in the YMCA [Young Men's Christian Association]. I found that was always a good place for a lonesome boy to go. They had a nice cafeteria. The rooms were cheap. Then we ran out of money. There was no work at that time. I took the letter from Mr. Ransom to go to find Mr. McMillan. I went into

the Terminal Building on Hill Street. He was on about the third floor; I think that was the top floor at that time. I went up to his office and here was the sign on the door, "Gone to war." That was the end of that, so I thought.

But I had to have a job. I got a job with a man that was laying out a subdivision in the southern part of Los Angeles, which, by the way, was just on the then outskirts. By the way, I should say here [something] which is very important, that at that time Los Angeles was just a little pueblo. When we came into town on the SPRR train, they began to sing on the observation car that wonderful song "California, Here I Come." It was a wonderful thrill. We went through the orange orchards all the way. Then through Glendora to Pasadena. Everything was oranges then, clear from San Bernardino to Pasadena. I remember as we went through those orange groves, they were beautiful. It was a thrill singing, "Here I come, California" as we came into Pasadena and into Los Angeles. What an arrival! It was just a pueblo. I should make that very clear. Because at that time there was no such thing as planning, and this first job I had was an example of it [i.e., lack of planning]. This man hired me to drive stakes to lay out lots. He was just laying it out with a cloth tape, no instrument, no precision. It was terribly sloppy. I found out for the first time what adobe soil

was. I tried to drive stakes in at the lots' corners that we were laying out. It was like driving into a concrete floor. I didn't understand what it was. I couldn't get the stakes in the ground. So I had to use a steel pin and drive that in first, and then put the stakes in later. Even then they weren't very secure, but he didn't seem to bother or care about that. He paid me four dollars a day, by the way. I'm ashamed of that job.

When that job petered out, we didn't have anything to do or a job, and we had to have money. Lewis Ziversky was rooming with me, and he had a little money, but we ran out of that. So we said, "Let's go and sell the camera." We went up to the Union Oil Building, although we thought maybe this man was a phony. We were a little bit skittish about going up and asking for the general manager. But sure enough, we went up to the eighth floor, and there was this big office. And we entered and there he was. We reminded him of his promise, and he was delighted. He was glad to get the camera, and he paid Lewis what his asking price was--which I don't remember what it was, but it was terrific. We thought so at the time. That kept us in meals for a little while.

I knew that I didn't want to be sponging on Lewis anymore. I was out of money. Oh, by the way, when I was in this general manager's office, and being a youngster

always looking for a chance to advance myself, I said, "I need a job, sir. Can you give me a job?"

He said, "Well, what can you do?" Well, I began to tell him what a transitman and surveyor I was. He said, "We haven't any jobs like that."

I said, "Sir, I need a job. I need a job so very bad."

"Well," he said, "if you need a job, go down to Wilmington and report to our superintendent there. We're building tank forms down there. He'll give you a job."

"Well," I thought, "that's fine." I kind of thought it would be a survey job.

HOLDEN: Do you know the name of this gentleman?

FOX: No, I don't. I don't recall. It was--

HOLDEN: Nineteen eighteen?

FOX: It was in 1918. He was then the general manager of Union Oil Company.

HOLDEN: Okay.

FOX: Then I borrowed four dollars from Lewis in order to get on a red car and go down to Wilmington. That's where the tank form was being built. So I reported to this great big red-faced superintendent, a Mr. Masterson. He looked at me kind of funny. I told him I was sent down by the general manager. He pointed to a shanty over there and he said, "Well, there's a pick and a shovel over there. If

you want to go to work, go and get one of those and report to that gang over there." And he pointed to where they were building some berms. A berm is a dike being built around these great big oil tanks. I went over, and here it was. It was a laborer's job, and I was working with Mexicans and Negroes.

There was one nice old gentleman in the gang, a white man. I didn't have a place to live then, so after work he took me to the only hotel, a little old clapboard hotel in Wilmington. Wilmington wasn't much of a town then, either. It was called the Wilmington Hotel, and I got a room there on the nice old man's credit. I used to go walk to work with him, and he talked to me like a daddy. I guess I was a pretty green-looking kid. I guess I really was in many ways. I was just a little boy from a little town. As a matter of fact, I've never quite got over being one.

When I went to work there, of course I was going to build those berms up right now. I went in there like I was in a survey party as an axman or rodman, and I really went burning in with my shovel. The old man says, "Just take it easy. Take it easy, son. Remember, you got to have that same speed around five o'clock. This is not easy work. You're going to have a lot of blisters on those hands, and your back's going to hurt." Well, he sure was right.

After the last hour, I was so exhausted I could hardly walk home. But I could eat. Boy, I tell you. I was skinny. I wanted to gain weight. I'll tell you later how I never could gain weight. But I was hard. I was hard as nails, but I was skinny, and I was conscious of being skinny. I began to learn then the pace of how to work as a laborer with a shovel--it was mostly shovel work--on those berms. Well, I had blisters all right. They would bleed, and I'd have to-- He gave me gloves to wear to protect my hands, because they were bleeding. The scabs would break open, and I'd bleed some more. He was afraid I'd get an infection. This old man was really a daddy to me. He taught me how to work as a laborer.

Then one day this superintendent-- He must have been watching me, because he came around and called me aside and says, "Son, can you do typing?"

Well, I'd never done any typing in my life. I wasn't too sure what he was talking about. "Well," I says, "I don't know, sir."

He says, "Can you write?"

I says, "Yes, sir, I can write."

"Can you read?"

"Yes, sir, I can read."

"Well," he says, "you're going to have to help me out. My timekeeper just quit, and we've got to make out

the checks for payday tomorrow, and I need help. So if you want this job, come on in and give it a try."

Well, I went into the office and I became a clerk. The first thing we had to do was to make out the paychecks for that Saturday payroll. Well, I worked the typewriter by hand, and he called out the names. Most of them were Mexicans with foreign names. He would read off of his time card what they were entitled to, and that's how we made out the paychecks. Well, then it became a matter between paydays, I had to keep account of material used and labor and so forth in a journal.

I had a very embarrassing experience about that. I had no experience in that sort of thing at all, and I did the best I could, and he was helping me. We were working together. He didn't know much more about it than I did. We were filling out forms the best we could, and then I got a call from the central office, scolding me. This shows you how a kid will be. He's very sensitive and so forth. The scolding from the head office was like this: "I want you to segregate those--" Frankly, I didn't know what the word **segregate** meant. I told him to go to hell. I said, "If you're not satisfied with what I am doing, come on down and do it yourself." It was a nasty thing to say to him, but he took it. I went on, "We're doing it just the way we're doing. You segregate it." I didn't know what the

word meant, but was too proud to admit it. [laughter]

These were some adventurous times. It seemed so many things were happening to me. Right in the middle of all this, the war situation was heating up. While I was there I registered for the draft. I kept that draft card for many, many years. I think one of my relatives still has it. I knew that I was going to be drafted into the service pretty soon, but I didn't mind that at all.

But right in the middle of all this I got a most interesting rumor--I don't know how rumors find their way down to people like me, down there just a laborer in a construction camp--that they were receiving enlistments in the army and that they were sending the enlistees to the University of Southern California [USC] to teach them rudiments of soldiering and also get educated. So I decided to try and see if I could qualify. [According to the] rumor, they were going to examine them after they learned the rudiments of infantrymen. (Because they had a infantry camp there; it was part of the school.) They were going to send some of them to go to officers training camp. Also, they were going to pay you to go to school. Just think of it! In other words, enlist in the army and get an education! I couldn't believe it. I called them on the phone, and they said, "Yes, that's true." So I said to my boss, "Mr. Masterson"--the red-faced superintendent--"I

got to leave you, sir, just like that other clerk that left. I got to leave right now. I have a wonderful thing waiting for me." He said, "Well, son, I can't fault that."

So I took my pay and got on a red car and went to see the sergeant in charge of enlistment up at the University of Southern California, and I enlisted. They gave me a uniform, and we had barracks there where we lived. I went into training camp, training as an infantryman. During that training as a soldier I studied very hard, and I took it all very seriously. Again, I used that old precision role. I'd work and I'd learn the **School of the Soldier**, the **School of the Rifleman**, the **School of the Sword** [manuals]. I knew it backwards and forward.

One day, our first sergeant came to us and he says, "You know, men, they're going to choose from our company five recruits to go back to an officers training camp in Virginia. Why don't you try out for it?" "Well," I said, "I'll try." He said, "Now, the thing to do-- The commanding officer is a first lieutenant. There's a captain there too, but the first lieutenant's going to examine you. He's the head guy as far as we're concerned. When you walk in, make sure you walk in as a soldier. Make a left face in marching, then a right face in marching, come to a stop, salute and say, 'Private Fox reporting, sir,'" He continued, "Now, they're going to

watch every move you make, and if you make one false move, you're going to be out. If you follow the **School of the Soldier** precisely, maybe you might be a candidate."

Well, I went in. I marched straight forward, steps, then left face in marching, four steps and then right face in marching, came to a halt. And I made a salute and said, "Private Fox reporting, sir." First Lieutenant Axelman was his name, and he was a very fine young man. Although I say "young" man now, to me he was pretty along in years. I was just a kid. He asked me a lot of questions with a smile, very nice and very calm. And then he said, "All right, as you were. Go back to your company." I did an about-face. That's the hardest thing to do. That was the thing I was afraid of, because a lot of times, unless you have a lot of practice in it and balance, you'll stumble and lose your balance. The axis of your body has got to be straight up and down. Well, I had practiced so much I made a good about-face, and then started to march away to where I'd have to make a left face in marching and then a right face and out. But I got about halfway when he called me about. He said, "Fox, did you forget something?" I turned about-face. I had forgot to salute him. I said, "Oh, heavenly day," and I apologized and I gave him the best salute he ever got. I had practiced that too. That arm had to be at 45 degrees and upper arm level. And the hand

had to be right over the eye and the thumb closed up and snapped out, level to the-- I went out, and the sergeant was waiting. He asked, "How did you do?" I said, "Oh, I blew it, I blew it." I wanted to cry.

Well, the rest of the gang went in there, and finally at the end of that day, they announced the five guys. By gosh, I was among the five, and I was put in charge of these four other guys to go back to officers training at Fortress Monroe, Old Point Comfort, Virginia. Right in the middle of winter, back in the rainy season, back to a country I came away from because of rheumatism. I got on the train, and we had our orders, and the orders were accepted by the railroad company. We didn't have to have a ticket. Those orders got us aboard. It was a form of requisition, and it was quite a thrill.

I still was a private, but the other four boys, inasmuch as they were now being trained for officers, were assuming a role they would have as candidates. And so they treated me as an officer. They would come to me when they had to go to the head and ask permission, and they'd called me corporal. I wasn't a corporal at all. But they would ask, "Corporal, can I go to the head?" or the club car, etc. I of course would say, "Permission granted." Or if they wanted to go to the observation car, they'd come to me. Made me feel awfully big and important, and they did

it seriously. I mean, they were now training themselves to be a candidate. Because we knew when you got to the officer training camp, we were going to be marked up and down for everything. It turned out to be so.

We got to Fortress Monroe in Virginia, and all the barracks, of course, were long before assigned. There was no place for us in there. They had tent quarters for us enlisted men, a tremendous parade ground. We were assigned to tents that were everywhere. We were in the last tent, Company K, down in the swamp. Every time it rained, water would go through our tent right under our bunks. We had to put our shoes on our bunk, because the water was usually about three or four or five inches deep. We'd have to splash out and report in the morning, for first call at five in the morning, when the sergeant would give the first-call bugle. [pause] Boy, I've been going a long time here. As officer candidates, we had a great big button right over our heart with "Company K" on it and your name, because everywhere we would go there would be officers marking us up or down for points. You had so many points against you, of course you got kicked out. We had lessons and drill every day. We had to go to classes in orientation, ballistics, and trajectory calculations. This was heavy artillery camp, a heavy artillery school. So we were being now trained in the mathematics of heavy

artillery, weapons, and fire control.

But the thing that really inspired me most of all was when I finally received my first paycheck. I should tell you, when I was a kid, I used to look at a handbook of Staunton Military Academy of Virginia. It had a beautiful picture on that cover of a cadet. I always wanted to go to a military school, but my folks, with eight kids, couldn't afford it. I'd just idolize that. And yet here when I got to Fortress Monroe and got my first paycheck-- I thought you had to pay to join the army. God, I thought you had to pay for everything. Here they were paying me for something I wanted the most in the world to do. It was now giving life to that dream I had of the boy in the Staunton Military yearbook. So, I tell you, I was so thrilled. Here I'm now being paid for doing the thing I wanted most to do.

The first thing, they gave us a rifle all covered with Cosmolene. It comes that way--that's nothing but a grease. We had to clean that out, because in inspection in the sun that grease would bleed out. We would then get a down-check from an inspector, who would have a white glove on. If he found one speck of that-- So I learned how to take that gun apart blindfolded. I tell you, I could take it apart in the dark, rain or shine. It was an Enfield rifle, not a Springfield at that time. We wanted

Springfields. We had to settle for Enfield, which was a good rifle. Well, anyhow, I then began to take it all very seriously, and I worked hard. The stuff was over my head. It was going so fast, and I thought I was going to fail. The instructors were trying to help us out.

By the way, we had an epidemic then of the "swine flu." We'd be in ranks on the parade ground [and] we'd hear men go plunkety-plunk, just falling over backwards. Deaths were numerous and terrific. We were all scared. [There's] never been anything like it before or since. I think they call it after hogs or pigs, the swine type of flu. It was very devastating. Men died in all the camps. It began to promote fear into the hearts of all the men. It was really devastating. In our camp, however, of the five of us, we lost one. One tentmate died. The rest of us all lived through that epidemic. I saw many of those men later in life. Johnny [John J.] Malone later came to work for me in the [Los Angeles County Regional] Planning Commission. He was one of the candidates with me, the only one that I can recall that I met in later life.

Anyhow, the war then ended, and we were given our commissions. But the captain of our company [Bill J. Sweet] called us all in individually. He called me in, and he told me that the army was a good life and that I had done very well there. And he said, "Why don't you stay

in?" He said, "It's a fine life. You have the option now. If you want to stay in, I'll arrange for you to be a regular in the United States Army, as an officer. You tell me what you want." I said, "I want to go back to college, sir." He said, "Well, I can't fault you for that." He wrote my orders, and I came back to California and reentered the University of Southern California. That was October 1918.

I had no money. I was still in uniform. I didn't have money to buy a pair of shoes or anything. I'd come to the campus, and I got in touch with a man [Mr. Hughes] who was what we call a custodian. And I got a job from him sweeping the main administration building. I think that has been destroyed since, but that was the administration building, and the only administration building they had, as a matter of fact. My job was sweeping the auditorium and the YWCA [Young Women's Christian Association] in that building for my tuition. I worked in Clark's Restaurant for my noon meal. I have to say that it was the only job in my life I got fired from. The reason I got fired from it was we had a lot of girls come in there, and I never knew that you gave a girl a chit to pay. The result is they'd come in for banana splits and ice cream, and I noticed I had more customers each day at my table. More every day and I didn't know why. Nor did Mr. Clark. But

the reason was I never gave them a chit. The owner of the restaurant-- His name was Mr. Clark, by the way. He was a sourpuss, anyhow. He found that out and he fired me. He kicked me right out in the street, he was so angry. I didn't even get a good meal that day. That was the end of that.

Now, getting into Los Angeles, Los Angeles was then just a pueblo. Because on the West Coast San Francisco was the main city. Everyone talked San Francisco. That's where the banking was. That's where the mint was. That's where the big harbor was. Los Angeles talked about ambitions that someday they might have a harbor. This was long before there was a Los Angeles and Long Beach harbor. There wasn't even a breakwater built then. There was a big gap between Los Angeles and San Pedro. San Pedro was not part of Los Angeles then. You went from-- Los Angeles's southern boundary was about where Eighth Street is, and north was where the little chapel, the little mission, is now. [There] wasn't anything. Nothing on the other side of the river. That's about all there was to Los Angeles. Hill Street was about the most westerly bound. There was nothing beyond that. It was the [La] Brea [tar] pits out there, places people would go as a curiosity, get a bus to go out there. They were trying to sell lots then down in Wilmington, but there was a big gap of country

between Los Angeles and Wilmington and San Pedro. They weren't towns then. They were just names.

HOLDEN: Was there a highway at that point?

FOX: No, there were no highways, as we know them, anywhere. There was no such thing as a highway. You went down a block and you'd turn right for-- That's why I went into planning. If you look at the number four report, you'll see how the street system was then, how the streets were before we laid out the highway plan. We superimpose the existing pattern on the master plan. Here's the master plan. [leafing through plans] It's on page 24, the highway for the [San Gabriel] Valley. But before that there should be a topographical map.

HOLDEN: For the record, we're looking at section four of the Los Angeles County Regional Plan of Highways. Correct?

FOX: Yes. One section, on page 16, is a topographical map, which will indicate how the roads then jogged all around, what the topography was as late as 1940. Then on page 26 is highways before planning, and you can see by red lines there how things jogged around. There was no such thing as even a through road, let alone highways. That was in 1930 or '31 when this report was made, but I'm going to go back to 1917 or 1918 again. It was absolutely farmland, and the main city was a little old pueblo called Los Angeles. And everyone talked about Los Angeles.

Everything else was the ambitious idea that someday Los Angeles would be a big city. But they had to have a harbor first. They had to have a lot of things. The people were all going to San Francisco. That's where the money was. That's where the industry was. That's where the development was. Development hadn't come to Los Angeles at that time. There wasn't any semblance of it. It was the best time to do some real serious city planning.

FOX: Los Angeles and Los Angeles County then were primarily and basically agricultural. There was nothing happening very much. In other words, jobs were scarce also. But, as I look back now, I can see that the impetus was San Francisco while it was great and the influence was great. San Francisco was the dominant city in California. It was really bringing people to California. And there was an overflow of people, and that overflow was kind of eking down to Los Angeles and along the coast. So that I think, really, Los Angeles got its first development from the impetus of San Francisco. It had personality, charm, and character. In other words, we'll say people who maybe didn't like the weather up there, which was a little colder and a little more cloudy, finally just drifted down. It wasn't any great industry or business, as far as I know, that first drew them down at that time. It was climate. It was kind of the impetus of what was occurring in that dynamic area of San Francisco. That was California to people from the East and the United States, really. Los Angeles didn't seem to be mentioned even in conversation with people coming to California. Los Angeles had yet to develop a personality.

I recall particularly that all of Orange County then,

of course, was oranges, as was most of Los Angeles County. I remember Azusa, Glendora, Covina, West Covina, and Monrovia as orange country clear to the boundary lines of the county. But Pasadena was the one city that stood out as an independent city. It had personality. It was the shining city of San Gabriel Valley and that end of the county. I recall going on a bus tour one time to see that beautiful city. When we came down Orange Grove Avenue, which was known as a millionaires row, the hawkers were not allowed to say anything. They couldn't shout their wares or even describe the street. The influence of the millionaires row of Orange Grove Avenue was so strong that he would tell us over a megaphone before entering Orange Grove Avenue, but he couldn't describe anything from then on because of the influence of those people. But the town was beautiful. Long Beach was a beach city. Long Beach then was just beginning. It was a long stretch of country before you got there, but it was known as a city. Then there was the sleepy town of Pomona. But other than that there wasn't much going on in Los Angeles County in those days of 1917.

But anyhow, getting back to my arrival to Los Angeles. After I returned from the war I got my job sweeping the auditorium and the administration building for my tuition at USC. After I got fired from the restaurant,

I was washing windows and running errands for my lunch. And I got a job driving a car. I like to drive a car. I just love to drive a car. I got a job driving a Studebaker for a dear little old lady on Sundays, for a wonderful meal. She made me keep that Studebaker just spotless clean, which was all right. That was my job. But we'd always end up at noontime at some nice hotel. It was a full day's outing. We'd start in the morning, and I'd drive her all around out in the country. It was all oranges. That's how I got to know the county, [from] driving that dear old lady around and around--Monrovia, Glendora, Azusa, Covina, and [La] Puente, and all those small towns. I got to know the county outside of the limits of Los Angeles by driving that little old lady around every Sunday. We'd always end up at a very swanky--The best hotel, the best eating place we could find, and she really gave me a wonderful meal. I thought it was just great.

Then, one day I was sweeping the auditorium and four men waited on me. By the way, I was still in uniform. I didn't have any money to buy civilian clothes. I was still wearing army shoes and army uniform. And in this group was one who was an aviator. I'll think of the name. [Second Lieutenant Percy Hozalton, U.S. Army Air Corps] They invited me to join a fraternity [Delta Beta Tau]. Well,

I'd heard of fraternities, and I didn't know much about them. I said, "Fellows, look. You can see I can't join anything. I'm just working for my tuition." I couldn't afford it. They said, "We didn't say anything to you about money. We've been watching you, and we'd like you to join our group." I couldn't pay anything. I couldn't pay tuition or an admission fee. I couldn't pay anything. They said, "We'll look at that sometime when you can pay it, when you work summers or sometime."

And one of them says, "What we want you to do-- We're all back from the army, and we just opened our fraternity house on Flower Street and we have to have a cook. It was Ralph [O.] Chick." (By the way, Ralph Chick was one of them. He was a guard on the USC football team.) "He's a playground instructor and he's doing the cooking, and he can't continue any longer. He's got to keep the job up on the playground. We want you to cook for us." I said, "Fellows, I can't cook." They said, "He's been cooking. All you have to do is get a great big bowl of oatmeal and a lot of grapefruit. Go down to the market to get your grapefruit. Go down to the market at five o'clock in the morning, get a lot of eggs and a lot of steaks." He says, "There's twenty-eight men. You roll in twenty-eight potatoes in the oven and bake them and give them steaks. And anybody complains, then they have to be the cook." I

accepted. I cooked for that fraternity for a whole year. That's how I got my room and meals.

HOLDEN: Yes. How long had you been at USC then?

FOX: About three months. I had just begun.

Now we get into this other phase. Come June, naturally I again had to have a job. With my experience with the Union Oil Company down in San Pedro, I got to know the harbor pretty well, and I knew they needed longshoremen to unload ships down there. So I went down there and I got a job as a longshoreman for the Blinn Lumber Company. I would load these other hunkys. I would unload the green lumber from the boats and take it to the yard they had there and stand it up on end to dry. It was healthy work and it was good. I got strong. Boy, then I began to eat and I got really powerful. Nothing tired me out. I really enjoyed it, and I lived down there and worked with these longshoremen. They were tough men. It was a job I liked. Then I'd see boats come in.

So finally I got to meet sailors along with longshoremen. So I then got a job as a sailor on a boat going from Los Angeles to San Francisco. It was called a steam schooner, which means that the bridge and all the engines are aft and the fore part was all cargo. On that trip up there--it took us four days--I met a Scotch sailor on board. He took a liking to me, and as we came into that

beautiful harbor of San Francisco-- At that time in the harbor there were a lot of sailing ships. I would say most of the boats in the harbor at that time were square-rigged sailing ships. All through the West Coast, all over the Pacific Ocean were sailing ships. Not many steamers at that time. They were just coming into steamers. As we came into the harbor, I was fascinated by these sailing ships, and he pointed out one which was a big one. It was a five-masted barkentine, which means that all the masts, foremast, mainmast, the mizzenmast, and the aftermast were all square-rigged, except the spanker mast. The spanker mast was a fore-and-aft. Otherwise it would be called a square-rigged bark, a five-masted bark, which there never was. There's four-masted barks, but this was a five-masted barkentine. Four masts were up for flying square-rig sails, royals, mainsails, and skysails, the whole ball of wax. Skysails are very high and on top--each mast was 186 feet in the air. As I came in the harbor, this Scotch sailor said to me-- Because I was then wanting to talk sea language to him. He says, "Son, if you want to be a real sailor and a man, get a job on that square-rigger over there." Well, like all kids, that fascinated me.

As I got paid off at San Francisco, I took my seabag. By that time I had developed a seabag. You have to have seaboots and oilskins and a clothes change,

although you can get that on board of a sailing ship from what is known as a "slop chest." If you go in there drunk and don't have anything, you'll find those things aboard. You draw that out, and it gets checked against your pay. So anyhow, it was called the **Muschatta**. It was one of the few sailing ships that had a steel hull. It was captured during the war from Germany. It was a German boat or a Dutch boat, I'm not sure which. That's why it had a steel hull. Most all sailing ships are wooden hull. This had a steel hull.

I walked up there and up the gangplank, and of course there's always one on any ship at port--there's an officer at the head of the gangplank. Sometimes it is the first mate, sometimes second mate, sometimes the third mate. In my case it had to be the first mate. And I went up and he asked me what I wanted. I said, "I want to sail on your ship." He looked at me kind of strange, and he says, "Well, have you ever been to sea before?" I had learned a lot of lingo from this little old boat I came in on--a steam schooner from Los Angeles to San Francisco. I told him a lot of names of boats that I'd heard them use. And he looked at me and he says, "Well, take your seabag down below in the forecastle." The forecastle, by the way, is below the poop deck. The forecastle is forward. The poop deck is aft. The crew's quarters were under the poop

deck. So I took my seabag down below there, and he signed me on.

They were then trying to get a crew. They went around to saloons and got drunks and everything else, because it was hard to get a crew for a sailing ship. You never get a full crew by waiting for them to come to you. They even call it "shanghaiing." They wait to get a guy drunk and doped, and he finds himself aboard--sobered aboard--and he is already signed on. They go to sea. Well, I signed on willingly. I was learning.

Well, the first week or so, it was sad. I got terribly, terribly seasick. I was an "ordinary seaman," by the way. That means apprentice seaman, which is the lowest thing on earth. The other sailors were "able seaman." They were hard, able, strong, skilled sailors--there's no doubt about it. I learned to admire them as sailors. They were rough. They were dirty. They were communists. They were bitter--they wouldn't speak to me. They knew I wasn't one of them. They wouldn't even cuss at me. I couldn't eat with them; I had to eat when they got finished. Anyhow, I was one of three ordinary seamen. These other two were two tough kids from San Francisco. The sailors accepted them. They did not accept me.

By the way, we were loading all the fruit we could. Because you don't have any refrigeration on a sailing ship,

they load up with everything they can. You eat fine at first, oh, maybe the first month until things start to go bad at sea. In loading they were taking on some oil for the galley. The galley is where "slops" cook the meals. That's midships. They spilled some oil on the deck in the loading process, and my first job was to get down on my hands and knees to clean this oil up. And I was so sick I would slide on my belly on this oil. The boatswain--who's your boss on board--he's a tough cookie, and he looked down on me in disgust. To keep me from sliding overboard, he put a sling around my waist and tied me to a stanchion, so I slipped around at the end of that. They warned me to keep cleaning up that deck, because that was my job. I was the lowest rank, so I had the toughest and dirtiest jobs. That was my first week on a sailing ship.

After that, I loved it. I was strong, and, boy, from that time on, I tell you, I would go from mast to mast instead of going up-- The ladders going up are called ratlines. They are rope ladders between stays that go up and down from mast top to deck. Stays are what hold the mast up rigid. You go first up to the mainsail and then to the lower top mainsail, then upper top mainsail, then lower degalant, and then royals and on up to the skysail. Above the skysail is one called the truck, above the niggerhead. The niggerhead is the crossarm upon which is

located the ship's light. The ship's light is big and heavy, [made] of metal, about two feet square. My job was to go up there and clean that ship's light.

Later on, I had to paint the truck. Now, there's nothing above the truck. The only way to get up there is put your arms around the mast like going up a tree and shinny up like a kid goes up a tree. I had to do it that way in order to get up to paint that truck. They hated me so or disliked me so, no one would even tell me the various knots and how to make myself secure. The result is I had to go up there on what is known as a "boatswain's chair." To paint down and so forth, you make yourself fast on there and then work a pulley with a rope sling over one arm that you have to take up there with the boatswain's chair, and let yourself down. Well, one sailor became so sorry for me because he thought I'd probably kill myself. He did show me how to rig my boatswain's chair and how to work a slipknot, where I could slide that through that slipknot and lower myself on that boatswain's chair down along the mast and around the stay. I had to paint the mast. I had to paint the stays, which are cables, wire cables. They're about an inch in diameter. That was 1919. I went to India, went to Calcutta on that sailing ship.

HOLDEN: You were twenty years old.

FOX: Yes, just about. I learned the ropes. I had to take

in those skysails as soon as there would be a blow. We'd just turn in to our bunks during a storm with our seaboots and oilskins still on. I mean, you'd be so tired. But I'd have to get out as soon as we hit a blow. The first mate wanted to bring in those skysails right off the bat, because they would be the first to tear loose in a storm. The skysails were in a kind of a fan attitude, and the lower sails get the full benefit of the breeze. The ones up in there are just kind of fluttering. I'd have to take those in, because in a storm they might blow away. Then, on all four masts, and instead of coming all the way down, I'd go hand over hand between what we called the fore-and-aft stays, which is a cable going from mast to mast.

One time the captain-- I was just a kid. I was skinny. I didn't have any weight. To me there was nothing to it. I enjoyed it. The master came up in back, and he pointed to these other big, fat-assed sailors and said, "Look at that. That's the only sailor on this ship." That made me real proud. It made me more risky than ever. I thought I was real smart.

HOLDEN: Well, you had no safety ropes of any kind up there.

FOX: No, no, nothing. Every time the ship would go over a swell, this 186-foot mast-- The rate you'd swing and travel would be terrific. No, that didn't bother me. It was fun

once I got over my seasickness. From that time on I liked it. I mean, I was a bit cocky. I was strong. It didn't bother me. The height didn't bother me either, but what I needed was Big Ben's help. He was a Swede. He was the one that showed me knots, splices, and how to make myself secure aloft. He was kind of the one sailor they all respected. All the other sailors kind of kowtowed to him, despite the fact he did a service for me and helped me. He was a big guy and strong.

The boatswain, they all hate the boatswain. Everybody was supposed to hate the boatswain. The other one they hated was me. But they all hated the boatswain. I was supposed to hate the boatswain, too.

Ben finally began to teach me how to splice rope, but what made my debut-- I should tell you about that, the reason they began to speak to me and help me out. I was up on the foremast one time, painting down the foremast up on the truck. Up on the truck there's nothing to hold onto except the mast itself. There's no ropes or anything. The color of this mast paint is kind of like a diarrhea yellow. When you get that paint and it becomes very slippery, you can't hold on very well. I was doing the best I could. I wasn't doing a good job of painting. Also, I'm carrying up there my boatswain's chair. I made it fast, but I'm up there with all this gear, can, paint,

brush, boatswain chair, and a lot of rope. The truck up there is a form of platform. It don't look like much, but it's fourteen or fifteen inches wide and about eight feet across, four feet on each side of the mast.

Anyhow, that's where I had my paint can, but in the roll of the ship and so forth, I slipped. And instead of having the paint can fast, it got out of my hand, and it went down end over end over end over end. And every time it turned over, the wind would get this diarrhea paint and splash it like a big spray on the front of the wheelhouse and the cabin, which was where the captain's quarters were. It is midships and goes from starboard to port, all white. Boy, it looked like smallpox. Then the paint can hit on the deck like a great big egg, and I saw it all down there. About that time the boatswain came out of the forecastle, where we kept the paint. Also, that's where he mixes the paint. He saw that mess and he pointed his finger up at me. And I knew he was going to-- Because every time he'd get mad at anybody he would take it out on me. He'd either hit me or push me or cuss me. I was really always underneath the pile. Anyhow, he looked, and I knew he was going to beat me when I come down, because here was this big mess of paint. [It] looked like a great big egg down there. The white cabin and wheelhouse were all sprayed like smallpox.

Well, I had to come down eventually. So I came down when the boatswain was engaged somewhere else. It was about mess time. I went down to mess, and gee, I found out that they treated me like a hero. Gee, the message that the crew got was a strange story. The man at the wheel, he saw all I did. Only his story was greatly exaggerated. He told the story that I took the paint can and carefully aimed it at the boatswain and threw it down there to hit him and kill him, and I just missed him by a hair, just so far. Actually, the boatswain wasn't even on deck. And I didn't throw it; it got out of my hand. It was an accident. And I was about to explain all this, but they were so nice to me and were letting me eat with [them]. (By the way, I used to have to eat what was left. It was good to start out with, but soon the potatoes got full of maggots, and so forth. They would be laying out up there on the poop deck under salt water and the sun.) They were now all treating me so wonderfully. I started to explain, but I thought I'd better keep quiet. From that time on, they really accepted me. They thought I was a great guy.

I had to take my trick at the wheel the same as anyone else, four hours on and four off. I was going by the captain's cabin, which was up on the wheelhouse deck. That's on the upper deck. On top of that there is the pinnacle head for the compasses, and then there's the

wheelhouse. Then underneath, that is where the captain's cabin is, right off on the bridge. I was going by his cabin to take my trick on the wheel. His door was open and-- I knew he liked me. He called me in and he said, "Sonny, I just want to ask you one question. Did you throw that paint can down?" Oh, by the way, I had to go and paint all of that white all over. I had to take care of all the damage. I had to clean all that off and repaint it. I said, "No, sir, I didn't." He said, "That's all I wanted to know," and he kind of smiled. "No more questions."

HOLDEN: All right. Now, back to draftsman and surveyor.

FOX: No, I'm going to let you talk and ask me questions [later].

HOLDEN: Okay.

FOX: On my way to [Calcutta] on the sailing ship we stopped at two places. We stopped at Honolulu to take on food, fresh water, and we also stopped at Manila. That's a long haul between ports. We had a lot of food go bad from Manila to Calcutta, and the same way in reverse. Well, I liked Honolulu so well I wanted to work there. I made up my mind coming back I would jump ship and see if I could get a job there. Well, we came back and also came alongside there, but I couldn't get away from the ship. The mate smelled the fact, and they weren't going to let

anybody ashore. By the way, if you jump ship they can arrest you. They have a "jimmy legs" [shore police], as they call them, to pick up any sailor. They'll arrest them and put them in irons, and bring them on board any boat they desert from. That was standard operating procedure. Well, anyhow, he wasn't going to let me get out. I couldn't get ashore. So I had to come all the way back to San Francisco on that sailing ship.

But I wanted to go back to Honolulu again, because I had somehow got a rumor that they were hiring people on the construction of the Kamahamaha Highway. So I got on another ship. I came as a waiter. I joined the waiters union. All you had to do to join was [pay] five dollars, and you got a white coat and white pants and you were a union waiter. So I was a waiter in the dining room until I got to Honolulu. Then I really jumped ship.

I went to the city hall and met the city engineer, Mr. Fred Oart--then city engineer, in 1919. He was very nice. He interviewed me. He wanted to know what I could do.

I said, "Well, Mr. Oart, I want a job."

And he said, "Well, what can you do?"

I said, "Mr. Oart, I can do anything. But I'm a draftsman and I'm a damn good one. I'm also a transitman."

And he said, "Well, we need a draftsman over at

Kaneohe on the Kamahamaha Highway." He said, "You're supposed to live here a year before you can work for the territory, but," he said, "we haven't been able to find a draftsman, and I've got the council to grant a waiver in your case." I think it was the city council or a commission. By the way, it's the city and county of Honolulu. It's all one, was then and still is. I think they called the governing body the city council then. I'm not sure. It may have been the commission or board of supervisors. He says, "I've got them to say that they will let me hire a draftsman, providing if at anytime a resident young man comes to us for a job, he has it--we're going to have to fire you. We will have to lay you off."

"Well, that's all right with me."

So Mr. Oart says, "You go over to Kaneohe on the other side of the island. You report to Mr. Taylor, Mr. J. [Joseph] T. Taylor, who is chief engineer, and he'll give you a job as a draftsman. We need a draftsman."

So I had to hitch a ride. By the way, there was no highway, no way to get on that side of the island except go way all around Diamond Head. The Kamahamaha Highway, all this tunnel stuff was never built at that time. That was our job, to build that highway. So I got around to the other side of the island, and I went to the construction camp which is at the little town of Kaneohe on Kaneohe

Bay. I reported to Mr. Taylor, "Mr. Oart said you needed a draftsman. He gave me a job." He says, "Have you a sample of your work?"

Well, I always kept a sample of my work. I was always proud to show that because I knew that anyplace I showed that work I had a job. It was always the case. I could really draw. I could draw! It was like an etching, if you'll pardon me for saying so. But that was my training. It was my talent. I'd been trained well at the DeLaval Steam Turbine Company, and I knew what I could do. So I didn't hesitate to say I was good. I was good--I was real good.

Sure enough, over there I got a job as a draftsman. In the drafting room they had one other draftsman. The camp manager, who was Hawaiian, he was also the office manager, and a good draftsman himself. He was also the Hawaiian doctor for that area. He delivered all the babies in that area. His name was Kuns, Robert Kuns. Handsome, very fine Hawaiian. Our job then was figuring out quantities on the construction. The Kamahamaha Highway was under construction from the [Nuuanu] Pali [Pass] on down the side of the volcano through the town of Waianae and Kaneohe and Haia and around through Schofield army barracks in Waimanalo Valley. So I got a job as a draftsman. It was work I knew well. It was a matter of calculating

quantities, plotting cross sections and profiles. I was good at that. It required no great skill for that kind of work. I could take surveyor's notes and I could really make maps, also storm-drain design work or drafting. I drew the bridge's plans up--the drafting, not the design. I designed one later on, a small one. We had a little cottage where we workmen lived, or us members of the engineering department. The chief of party was a surveyor by the name of Bill Hughes, in charge of the survey party. And there was Robert Kuns, and then there was an inspector of concrete by the name of Ernest Roberts, who later went insane. I went to the insane [asylum] in 1932 to see him. They put him in the insane asylum on the other side of the island with a bunch of Japs. It was a sad sight--he did not recognize me. We could not communicate. I had to leave him.

Well, anyhow, I was getting along very fine as a draftsman, and I lived in this little cottage with Bill Hughes. Bill Hughes had itchy pants, and one day he said, "I'm going to leave. I'm going to go back to the States. I've been in the islands too long." He went to Mr. Taylor and told him he had to leave and there was no alternative. So Mr. Taylor asked me if I could run a transit. I said, "I sure can. I am a good transitman."

Well, I tell you, I really extended myself there,

because we were now laying out curves on the highway: compound curves and reverse curves and superelevated curves all the way on that highway down the side of that mountain. I had never had curves in school yet. I knew nothing about laying out curves. I was figuring them out and laying them out. I had laid out curves in Tennessee; I laid out railroad curves under this very great chief of party. He did all the figuring, all the calculating, and he really taught me. All I did was the manual work of the transit and working the degrees, because I had better eyes than he did on laying out the degrees and angles on the veriner--but I didn't do any of the calculating in Tennessee. But here, now I was the chief of party. All of my rodmen were very experienced rodmen, Hawaiian rodmen. They'd been rodmen and axmen with the [United States] Geological Survey, so I was on the spot. In other words, I had to be very good, because they knew what a good transitman was and what was a good chief of party. I knew I was on the spot.

HOLDEN: Were you really staking out a centerline or something like that?

FOX: Oh, yes, centerlines and making cross sections, profiles, etc.

HOLDEN: And then developing--

FOX: Centerlines and cross sections as we progressed. The

cross-section surveys before they would excavate. Then later we would find out how much was excavated, because the contracting company paid by the yard. On the uphill side was volcanic rock, and that was at a terrific price. And on the fill side was a different price. Also, if it was constructed in marshland, that was a different price. So the cross sections had to be well surveyed and well plotted, because there was always not only an argument but a bitter feeling between the chief engineer and the contractor. The contractor was E. [Ed] J. Lord. He was the contractor of the entire Kamahamaha Highway project. There was always a battle between Mr. J. T. Taylor and E. J. Lord. I was in the middle, because I was the one that had to get the data from which plots were made to determine how much he got per yard.

By the way, I found that Bill Hughes had made a wrong-- Not a wrong calculation, but a wrong principle of determining cross-section surveys on curves, and the contractor was really being cheated. In other words, he was using the right-angle method, which you would use in a straight highway, but on curves-- You just simply take a cross section at right angles on a straight highway. But on a curvilinear type you've got to do it by a pie-shape method. You've got to set up there, and by triangulation survey pie-shape cross sections to get an accurate reading

of the profile of the rock excavated. On the downhill side it was fanned out and an entirely different ball game. The contractor was being cheated on the uphill side, where it was rock, flint, and volcanic stuff. I found that out by studying Mr. Taylor's books, really. I studied those nights, in order to find out what I had to do the next day.

So the first curve I had to lay out was a classic. I hadn't had curves at school, but Mr. Taylor had wonderful handbooks. I was too proud to ask him how to survey a curve. I should have. Really silly. Today I know I would. I was too proud then; I was supposed to know that stuff, I thought. But I know he was there to help me.

But anyhow, I would use his books, and I studied curves all night on how to make the angle of interception, the eye angle, and work out the deflection for each chord length that we would take. We would use usually one chain (a surveyor's tape) length for each chord around the curve, and we started at what's called the BC [beginning of curve] and ended at EC [end of curve] and made a checkup on the IP. IP is the intersection angle of two tangents--IP, intersection point of two tangents. I had figured it all out and checked it, and it checked out. Now it became a matter of laying it out and turning those deflection angles. I had good eyes, and my deflection said that the deflection on each chord was two degrees, seven minutes and

ten seconds. I knew how to calculate and interpolate those seconds. So anyhow, I turned the angles, had the chainmen measure each chord, and finally the last chord had to check out exactly at the EC. I hoped that it would be within a couple of hundreds, but it just happened right on 00. And these chainmen, their eyes got so big. In other words, I had made my first debut, but that wasn't the end. I was still on the spot.

Where I really won their admiration-- I again come back to this matter of taking cross sections. The way Bill Hughes was taking the cross section, at right angles, was very inaccurate. And it was a hit-and-miss proposition. In other words, there was a lot done by guesswork. He'd chain up as far as he could and beyond that, where they couldn't hang onto those rocks, so they didn't get an accurate reading. It was a lot of guesswork, and you might plot an estimation. I knew I could make it by turning the deflection angles and measuring the distances by stadia. Do you know what stadia is? Well, all right. I found I had a wonderful Berger and Berger transit. It was a beauty. It was one of the best. It was very accurate. By that time I checked out the transit. It was right on. But I had to find out what the stadia constant was. The stadia constant is supposed to be right on the instrument box for that particular instrument, which I found was true. But I

had to check it out, i.e., find out whether that was correct or not. The only way to check it out, is to select an arbitrary distance, make a reading on the stadia rod, and have somebody actually chain that off, measure it with a steel tape.

So in order to find out if the stadia constant was right and whether my reading was correct, I had two great rodmen. These rodman were good. When they held a rod up, boy, it was plumb. They wouldn't do as I found natives in Mexico [doing]. You have a turning point. The Mexicans would just drop it here and drop it there and upset your whole calculation. That doesn't mean a thing to them. But not these Hawaiians. These were expert men who'd worked with engineers and U.S. Geological Survey men for years. They were older men, by the way. They weren't young boys. They were all much older than I was. So anyhow, I said, "Well, I have to check it out." So I said, "Put the transit up over the point there." And then I said, "Peely--" This one guy's long name was Hawaiian, but I called him "Peely" for short. "Peely, wander up and see how near that is to 100.75 feet."

In other words, I was guessing at that seventy-five hundred. But I looked through the scope of the transit, and you're reading by thousands to get that hundredth of a foot. He looked at me kind of funny, because they always

had to chain everything, and here this guy is telling how far that distance was by just looking through that transit. That fascinated them. So they measured off, and, sure enough, it was right on. They looked at me and finally they said, "Oh, engineer boy, how come you see this way, you tell distance?" I said, "Well, I don't need you boys. I have you working for me because I like you." And that was my debut.

HOLDEN: Okay, good for you. So why did you leave Hawaii?

FOX: Well, all right. By the way, I saved my money over there, because on that side of the island, I couldn't go to Honolulu or anywhere and I couldn't spend any money. We ate wonderful meals in the camp. I was doing work I loved. I really had fun--every day was a big experience. Well, finally came the end of 1920, and I began to think--Still I wanted to be an engineer.

Finally I said to Mr. Taylor, "Mr. Taylor, I'm going to go back to college. I've got enough money now. I don't have to sweep rooms. I added all the money, and I want to go back to college. I want to be an engineer."

He says, "Billy, I can't blame you for that. God bless you." He said, "If that's what you want to do, do it."

I said, "I hate to leave you like this, but that's what I want to do."

So then again, I didn't want to spend any money on a boat. So I called up the shipping agency in Honolulu--we had a field phone there to talk to the nearest other construction camp--and I found out when someone was going to town. I says, "When you go to town, I wish you'd get in touch with a harbormaster down there and have him let me know when there's a ship going to the United States that needs an ordinary seaman." I'm just an ordinary seaman. I still am not an able seaman. I'm just an apprentice, but they needed them.

So one day we get a signal that there was a ship, SS **West Keen**, by the way--it was a Liberty ship that they built during the war--that was going to Los Angeles. I had to get in there right now, because it was going to sail that afternoon. Well, I had to get onto a bus and get there and report to the harbormaster. When I reported, he says, "All right, the ship's right down there." But another kid had been there ahead of me. He'd sent him down also. Well, I saw the kid going down, and he was strolling along there. So I said, "By gosh, I've got to beat him there." So every time I would run and he'd hear me, patter-pat, I'd stop. In time, I passed him. I got to the gangplank ahead of him, and I reported in to the first mate and got the job. An ordinary seaman to San Pedro.

I came back and I enrolled in the School of

Engineering, and I was now in my sophomore year at USC. I went back to the fraternity house and I became the manager of the fraternity house now, instead of cook. I got my room and my meals. Now I had money. You know, I have to tell you this, too. I'm ashamed of that year, because I squandered my time. I was "giddy rich." Instead of studying hard-- Now I had the time to study; I didn't have to work. I had jobs to do all right, but I didn't have to sweep for my tuition. But I did too much playing around. My marks that year were horrible, absolutely horrible. I had to make up a lot of bad grades from that year.

But in my junior and senior years, that's when I really started to take matters seriously. From that time on I really began to study seriously. From that time on I became not only a good student, I became at the high in the class. And I became honorary member of--as you see in there--three honorary fraternities.

HOLDEN: Let's see. Did you get a degree, then, at some point?

FOX: Not with my class of '23. Because of going to war I did not have enough credits.

HOLDEN: So you got a B.S. in civil engineering.

FOX: Not then. I later went back to study structural engineering in 1936 and '37.

HOLDEN: Okay, so let me make a note of that. Your first

degree was in 1937.

FOX: Yes, a bachelor of science in civil engineering.

HOLDEN: How did they abbreviate that?

FOX: B.S. of C.E.

HOLDEN: That would make a little more sense. Bachelor of science in civil engineering. Give me the date, whatever it was. Your B.S.C.E. in 19--

FOX: Nineteen thirty-seven.

HOLDEN: And then you had an M.S.

FOX: No, no, no. Just the C.E. That's 1937 when I graduated.

HOLDEN: That's your degree, and it was from USC.

FOX: Yes. The structural engineering, I got in 1937.

HOLDEN: Yeah, okay. Structural engineering, 1937, and from USC. Why did you come back--?

FOX: In 1923 I started working for the cities in San Gabriel Valley as surveyor.

HOLDEN: Yeah. Let me ask you first, why did you come back to Los Angeles? Was it Los Angeles particularly, or because you'd already started at 'SC?

FOX: Well, I think because of my rheumatism. When I came out here, the sunshine took the rheumatism right out of my-- I've never had rheumatism since. I always had it all my life before that time. That's the main reason. That sunshine burned it out of me.

HOLDEN: Okay, then you started work for several cities. For the next several years, as a matter of fact.

FOX: That started in 1923. We had an association in the school called the Association of Engineers. I think that's all disappeared. Norman McKay was the secretary. He later became a fraternity brother, and his brother Chet McKay became a fraternity brother. He [Chet]'s now a doctor in Los Angeles. I thought Norman had information where they were hiring engineers, hiring help in the engineering business. I went to talk to him. He says, "Yes, Bill, they wanted a transitman out in an engineering firm in Monrovia by the name of Gerlich Brothers." Henry and Oswald Gerlich, they were two brothers in the engineering business with headquarters in Monrovia. Henry was then city engineer of Monrovia, and Oswald was city engineer, by contract, of nine cities. Those were the nine cities I gave you the list of.

HOLDEN: Right.

FOX: Azusa, Glendora, El Monte, Sierra Madre, West Covina, Claremont, Arcadia, and one in another county--Chino, in San Bernardino County. Let's see if I've named them all.

HOLDEN: I have eight here.

FOX: You got Azusa?

HOLDEN: Yeah. El Monte, Sierra Madre, West Covina, Glendora, Arcadia, Chino, Azusa, and Claremont. It's up to

eight, I think.

FOX: Oh, the other is Monrovia. Henry had that alone. Oswald is the one that had all these others. I became a transitman for them, for $175 a month. Boy, I really learned surveying. We had everything. We had lot surveys, profiles, cross sections, hydrographic, plane table, everything. I had to do them all. By that time, with my experience, nothing phased me. Nothing, absolutely nothing. Also, I had rudiments of plane table in school. From that time on, I was-- By the way, when I came back to school from Hawaii, I was so far ahead of the surveying class. I started taking advanced courses, because school surveying was boring to me. What they were doing was kid stuff, just going out in Exposition Park and laying out some little old thing which I didn't have time for. I had too many things to do. But in the experience with those cities under Oswald and Henry, I learned a lot. They were fine to me. They were good to me. They were very demanding. [corrects himself] Oswald was very demanding. Henry was very placid and very good-humored. They had both been army lieutenants. Oswald was a captain in the army. He was nice to me, but he was very exacting and very demanding. I didn't get much drafting work with them. They had a good draftsman [who] did all the drafting. But I did all the surveying on construction,

where I had to survey for laying out the stakes for all the construction. We were really putting in all the new concrete paving of El Monte, all at one time. Paving the whole town in concrete. So I had to lay out all the work for the contractor, both before, during, and after construction.

HOLDEN: Who laid out the initial design for the city?

FOX: Which city?

HOLDEN: El Monte.

FOX: I don't know. That was all laid out long before me. Well, I would say it was engineeringly well done, but from a planning standpoint, it was terrible. All these city plans were terrible, except San Marino. That's a different story. That's a very special story. That was laid out partly by me and by Seymour Bisby, engineer for the Huntington Land [and Improvement] Company.

HOLDEN: Okay. For [Henry E.] Huntington, in effect.

FOX: No, no.

TAPE NUMBER: II, SIDE ONE

JULY 15, 1985

HOLDEN: General, would you begin by describing, briefly, why in the last interview you indicated that the city of San Marino was a special case, and a good case, of city planning?

FOX: I think it's an ideal case. It's ideal, because it adopted what we know in design as "curvilinear street pattern." That means that the streets are all curved, which not only fits topography, but they are curved in order to give each lot an individual character. It also, in the curvilinear design-- There is no way that traffic can pass through that type of city except on the main boulevard, which is a straight line through the city. In this case, it was Huntington Drive. Huntington Drive was the only straight line, the only traffic artery that passed through that city. It not only carried vehicular traffic, but it carried the famous red car line, the Pacific Electric Railway. That pattern was adopted, I think, primarily way back when I was city engineer of South Pasadena. We couldn't use curvilinear design then, although it occurred to me that that was the pattern that would lend character to a community best of all. It also would lead up to something we called later "zoning by design," because by designing the street system to be only

accommodating residential, it automatically stamps itself residential. Whereas on the straight boulevards that went through, those by their very nature lend themselves to business and apartment houses, or duplexes if any.

I conferred at that time with the city engineer of San Marino. Inasmuch as I was secretary and later president of the City and County Engineers Association, I naturally became very closely acquainted with all city engineers, among whom was Bill [William B.] Chamers, who was then city engineer of San Marino. Bill was responsible for the beginning of carrying out some of that curvilinear design. That was also picked up and adopted by the engineer for the Huntington Land [and Improvement] Company, Mr. Seymour Bisby. He was a good engineer. Between Bill Chamers and Seymour Bisby, the curvilinear pattern was followed consistently throughout the entire city-plan layout and all subdivision plans which became part of San Marino. The east part of San Marino was owned by [the] Bradbury estate, Mr. [Lewis L.] Bradbury, who then lived in Mexico. I bought my first lot from him through his attorney, Mr. Roy Par, in 1932.

HOLDEN: All right. Now, let's go back to the fact that, at the end of the last tape, we were almost to the point where you were employed by the Los Angeles [County] Regional Planning Commission. What was the commission

like? What was the land like at the time?

FOX: I can give you a very accurate reading on what it was like, because I was in that planning picture right from its conception. I say "in the picture" even long before I became a member of the staff. As city engineer of South Pasadena and then president of the city engineers association, naturally I became interested in what was happening in all cities. Not just the city planning and city industries, but utilities and water supply and sewage and all the things that make up a city, because that's an engineer's responsibility. And then about that time, there was created a city and county planner association [County Regional Planning Association]. The members of that became the city engineers and members of the city council of many cities. The head of that was Hugh Pomeroy. At that same time as that association, the regional planning commission was created by ordinance by the [Los Angeles County] Board of Supervisors, with a board of commissioners of five laymen, with Hugh Pomeroy as secretary. Hugh then set up a staff. He had a few draftsmen on the staff. Bryant Hall was more or less acting as assistant to Secretary Pomeroy.

I naturally became very enthused over the planning and saw the possibility of coordinating and bringing all these cities in Los Angeles County together in one master plan. My interests seemed to appeal to Mr. Pomeroy. One day he

offered me the job of chief engineer of the regional planning commission while I was still city engineer of South Pasadena and chief engineer of its water department. I thought the matter over, and I saw that I had just about reached the top of the ladder in city engineering, having also been associated with nine other cities in the valley. So I accepted the job, but the only job in the salary ordinance for the regional planning commission was that of draftsman. I had to come in on a draftsman's pay with the title of chief engineer, pending a civil service examination for such a position, that was now included in the salary ordinance. That was the beginning. That was on July 6, 1926.

HOLDEN: July 1926. Okay.

FOX: So, I have to also say, I was very sensitive about the situation that existed at that time. You must remember, I came in now as an outsider, into an organization that already had a staff of about ten draftsmen, and naturally Mr. Pomeroy was the head. They called him a secretary. Later on, that was changed to director, and of course, later on, to chief engineer. When I became its head, I would not accept the title of secretary or of director--because I was an engineer. But I'll get to that part later. I was a little sensitive, because I knew that coming in as an outsider, I had to win

the loyalty and the respect of [those who were] already members of the staff, and particularly Bryant Hall, who was acting as an assistant to Mr. Pomeroy, assistant secretary. I have to say, frankly, he resented me. I felt it and I knew it. We sat across from each other at the same desk, and I never got any "good morning" from him for the first couple of years.

So I was on the spot, and I knew that I had to win their respect. I never went into the drafting room for a long time. I could see what was going on. I could see that they needed a lot of supervision in that drafting room. But I was timid. I wanted to wait until they wanted me back there. I wanted them to get into difficulty, where they had to have some advice beyond what they already had. That finally worked out just beautifully.

Also on the staff at that time was Ferd [Ferdinand E.] Gramm, who was an artist, and a very good one. He was able to illustrate many of our ideas beautifully in a perspective form, in various reduced forms, strictly in perspective. And also, Werner Ruchti was hired about that time. I'm not sure whether Werner was already on the staff when I came in there or not, but all I can say is that he and I became bosom friends. I realized that he was really the soul and the origin of real planning ideas, design planning ideas. He was a true genius.

HOLDEN: Bryant Hall was sort of a researcher.

FOX: He was a researcher. That was his best value to the department. I have to say this objectively because it has to be in the record. Bryant Hall would never measure up to the magnitude and ability of Mr. Pomeroy. Mr. Pomeroy, without a doubt, was a genius. He was an orator that was a spellbinder. He was like Churchill; he had the command of the language like Churchill. He was the nearest thing to Churchill I have ever known. He never wanted for a powerful expression; he never got rattled. He was calm. He was a big man in stature, not fat, but well proportioned. He had been a member of the legislature, so he knew the law. He knew the political situation. He was at home in most any situation. He was really a leader--there wasn't any doubt. I practically worshipped the man. We became so attached. I studied public speaking and tried to emulate him.

My job was strictly engineering. But he was a dreamer, and that's what planning needs. His dreams were so fantastic. He was way ahead of his time. He became aware, I think, that sometimes he might have been so far ahead that his plans wouldn't be accepted by the hardheaded bankers and councilmen and supervisors. He brought me in his office. He says, "Bill, I want you to work out all the kinks. Every time I have a plan, I want you to give me the

practical applications of it." And that was how we worked. Hugh Pomeroy and I formed a powerful team.

We would wait until after five o'clock, when everybody would go home, and we shut the door and really had what we called "bull sessions." It was a case of mutual respect. I never hesitated to say to him, "Hugh, I think you're just up in the clouds. You've got to come down. Bring it down to the ordinary person's level." And he would say, "Bill, how do we do it?"

Between the two of us we started evolving the basis for regional planning. The basis for planning on a regional scale had to be a highway system. That's the framework of any plan. That's where we had to begin. That's why we finally had to build a highway plan, to show that we could have continuity. At that time there wasn't a through highway, street, or thoroughfare anywhere in the entire county. Our first job was to work out a plan that showed the power and logic of planning that they could understand--to [help them] understand planning through the framework of highway plans. If we have a through-highway plan, we could later begin to fill in and talk about internal design, curvilinear design, zoning by design, subdivision planning, drainage, and all the other basic items that make up a city plan. That was the concept that we started with; that concept finally revealed itself later

in a comprehensive master plan of highways. That concept was evolved right in that office, the idea coming from Mr. Hugh Pomeroy. Putting everything on drawings was under my direction as chief engineer, with the help of those draftsmen.

HOLDEN: To digress for just a moment, to go back to the setting for this thing-- Joe [Joseph A.] Mellen was, I guess--

FOX: Joe Mellen was in there. He and Bryant Hall, I would say, they were the key men at that time.

HOLDEN: Joe Mellen told me that when he came there in 1923 as one of the first staff members, he opened a closet and there was a whole stack of unprocessed subdivisions. That's the first thing he said. He didn't know what the heck to do with them. The second thing he said was that very soon they started to work on some initial highway concept and that one day the board said, "We want it tomorrow," and that he and some of the others sat down and did some initial design.

FOX: Well, we worked out a plan then on what we call "wall sheets." And that plan was photographed, but it was an impractical plan. It was the plan that gave the board some idea, and it was feeding them morsels of something. We had to feed them morsels. We could show them we were doing something. There again, it was something better than what

they'd ever seen before, but we weren't satisfied with the plan. We began to actually finalize the plan by working it out in detail on wall sheets. You know what wall sheets are--size four by eight feet and a scale of six and eight hundred foot to the inch. But we had to have plans embracing large areas like the San Gabriel Valley, the San Fernando Valley, southeast and southwest areas. Wall sheets are nothing more than sections, and for planning purposes we had to have a larger plan. Then the section or area plan became our basic tool for regional planning studies.

The San Gabriel Valley became the first area plan that we adopted officially [Los Angeles County Regional Plan of Highways, Section 2E]. I had to take this area plan to each city and have the city council approve that part of the area plan involving their city. That city engineers association which I belonged to was the key to the whole thing. I wouldn't have got anywhere, or the planning commission would never have gotten anywhere, if we hadn't been able to present the plan as an engineering solution to the traffic problem. I would carve out the part of the area plan that fit Glendora, and I'd take it first to the city engineer. I'd take the one for Pomona first to its city engineer and have him approve it. He could see how that fit like a crossword puzzle into the area plan. He

would then sell it to a city council. In that way the report of the San Gabriel Valley is actually the official adoption by each city council of the plan for their particular city. My own town, San Marino, never adopted the plan. Pasadena took a long time to adopt, but my own city never adopted the plan, and I'll tell you why later on.

HOLDEN: Later on. Okay. Now, the plan, of course, is major highways.

FOX: They never adopted the highway plan mainly because a main highway-- Saint Alban's Road was the logical extension of Lake Boulevard from Pasadena. But they would not stand for that.

HOLDEN: Just similar to South Pasadena not wanting the freeway to go through it in later years.

FOX: Yes. I was part of that, too, because I designed the first freeway there when I was city engineer of that city. The first freeway was the Arroyo Seco Freeway, and that was designed in my office when I was still city engineer of South Pasadena. But the route it took, by way of Gravelia Street following the Union Pacific Railroad, was not my idea of the route. That was because carrying my plan up the Arroyo Seco called for a route right up to the Devil's Gate Dam and then coming to the surface. Then going from there up over the mountains into Antelope

Valley. I had actually made the survey over the mountains. We had a survey party in there for a couple of years plane-tabling the survey. It was thoroughly practical. It was heavy grading work, but it was thoroughly practical, and in my opinion, the best route.

The millionaires on Orange Grove Avenue would not stand for that highway down on Arroyo Seco in the back of their homes. That was when Busch Gardens was a public showplace. Mr. [August A.] Busch, the beer king, and Mr. P. K. Kellogg had their big estates on Orange Grove Avenue and backed into Arroyo Seco. So the state highway department surfaced on the north boundary line of South Pasadena and then bent easterly on Gravelia Street into Broadway, Pasadena. The Arroyo Seco Freeway thus terminated at Colorado Street.

HOLDEN: Earl Esse says he did some of the initial sketches for that. Do you remember that? That was under your direction at the time.

FOX: I'm sure he did, yes.

HOLDEN: But it didn't go up through Arroyo because of the objections?

FOX: The city council, or the board of directors, in Pasadena naturally were influenced by the people on Orange Grove Avenue. They were their representatives. They didn't say who objected, but we knew who it was.

HOLDEN: I see.

FOX: By the way, I still think it should have gone straight up Arroyo Seco, and it should have gone into Antelope Valley by [way] of Angeles Crest, which is [the way] Angeles Crest Highway [took] as a compromise. The highway would have gone right straight through. It is still the best route. We now must go up through Soledad Canyon to get up there, which is all right. But we could have gone right straight from Los Angeles, and we would have had a straighter route into the Palmdale Airport as a relief for Los Angeles International [LAX]. They may still have to follow the Fox route. LAX airspace is saturated now, and it's very, very dangerous. Every pilot is aware of it.

HOLDEN: Now, you're talking about highways. Closely associated with that, of course, is the use of the land. How much were you looking at either zoning or actual land use when you designed the larger highway scheme.

FOX: Very little at that time. Very little at that time. We never knew too much about zoning land then. About that time we took onto the staff Mr. [A. E.] Billy Williamson, who had been zoning engineer, I think, for Chicago. But he was the loner. He had the concept, and he was--without a doubt, I'd say--the ace in zoning. He was the only one that knew anything about zoning. We didn't

know much about zoning. Nor was there much law on zoning. Matter of fact, we had to pioneer the legal process and law, and we had a couple of cases ruled against us, by the way, because we were pioneering everything and made mistakes. Planning was being pioneered right in that regional planning commission department. All over the nation was watching us, because there was no such thing as a regional planning commission or county planning commission anywhere before that. They were talking about establishing one in Westchester County, New York. But that came later. By the way, Hugh Pomeroy helped to organize that planning effort. [He] left L.A. County and went up there and became their consultant.

HOLDEN: When did Hugh Pomeroy leave? Do you remember?

FOX: I'll have to think about that a bit, pin that down, but my guess is about-- It was way before the war, naturally. I would say about-- Gosh, I'd have to guess. I'm going to guess somewhere around 1935 to 1937, in there somewhere. It was a great loss. We didn't know what to do, really. We knew there was a big hole. They were floundering around for someone, and they then contacted Harland Bartholomew, [who] actually was from the great firm of national planners in Saint Louis [Harland Bartholomew and Associates]. He was a professional planner. Incidentally, here was a case of a civil engineer being an

expert planner.

Actually, our best planners were landscape architects. They had the best concept of treatment of land. The next ones, I would say, were civil engineers who had been surveyors, or maybe they were very close. I rate the landscape architect as the man who is the nearest to being a doctor of land. That is their profession. That's what the great [Frederick Law] Olmsted firm was. And that's who Werner Ruchti worked for, and that's where he got his training, so-- By the way, the firm of Cook, Hall, and Cornell, that laid out Beverly Hills, were landscape architects. So I think that I'm safe in saying that a landscape architect has a better concept for the treatment of land than any other technician. I learned to respect them a great deal. The engineer played a great strong role to make their work practical, but I would think, as far as concept and imagination and knowledge, the feel of how to treat land, the landscape architect is a great artist.

HOLDEN: The zoning ordinance for the county was, I believe, adopted first in 1927 and, I guess, a part of it declared unconstitutional and then--

FOX: That was really the enabling ordinance; that wasn't a plan. That was just the zoning ordinance, the authority to zone.

HOLDEN: At the state level.

FOX: No. It's by an ordinance by the county. The [City and Regional] Planning Act wasn't passed until much later. By the way, I want to emphasize here that, while we labored hard to sell zoning, I think it was good for us. I think that one of the problems of planning staff today, is [they] rely upon laws to do the job. They quote laws and say you have to do this because of state law or ordinance so-and-so. The result is they've lost the art, lost the power of thinking, the power of imagination, the power of selling their ideas on merit. It's not being on merit, but on mandate of laws.

I think that we were trained as planners. I think I became a planner, or a better planner from that of an engineer, by reason of my association with Hugh Pomeroy, and more or less have inherited the concept of regional planning from him, i.e., the broad thinking beyond a city's boundaries. That's where I got the concept of city planning from, was my working with Hugh Pomeroy. And then, having got that concept, I had to sell it. I had to sell it on its merits to city engineers, and from the city engineers to city council. We'd have mass meetings of the city/county planning organizations. We had to sell our ideas. It had to be on merit. The result is if we couldn't bring it down to their level, we weren't going to be in business. We weren't going to get anywhere. By that

process we were making progress all the way, so I think that the best training we ever had was the fact that we didn't have any laws to back us up. We had to rely on the merit of planning something before you attempt development. I often said, "Remember this: when you're building a building, you can't change concrete, but you can change a plan."

HOLDEN: You may have change orders all over the place, if necessary. But you have to make sure that the change orders don't unbalance your plan.

FOX: Oh, definitely. But I mean before you begin development of construction, before pouring concrete, you should have the plan. In other words, if you start pouring concrete before the plan, you're beginning at the wrong end of the deal. Always there should be a plan first. You shouldn't turn a shovel till you have a plan. You may have to amend a plan somewhat as you go. That's all right if it's justified. But you shouldn't start before you have planned anything.

HOLDEN: Establishing the point, you're saying that the county got into this business of a zoning ordinance before there was state enabling legislation, right?

FOX: Oh, long before. Long before, yes.

HOLDEN: So that the initial ideas--both city and county, for that matter--were generated before the state got into--

FOX: All by ordinances, by police power. In other words, any ordinance is under authority of the police power. So really the basic authority for all city or regional planning is under police power of the state. Basically, it was the same authority for zoning ordinances but was under a different jurisdiction. It was the police power of a county, instead of a police power of the state. Police power of the state merely broadens out and becomes mandatory on all sub-jurisdictions of the state. Whereas the ordinance of the county, naturally, affected only county territory.

HOLDEN: I'm beginning to see that many of the things in planning, the initiation of them was something that local governments did, cities or counties or--

FOX: Oh, yes, I think it's--

HOLDEN: It's seldom by the state, at least in the early days.

FOX: Oh, definitely. It definitely began on the local level because you were closer to the picture. You didn't get into the state scheme or federal scheme until-- Later on, I became a member of the [California] State Planning Commission. There is my appointment on the wall here, somewhere, by Governor [James] Rolph [Jr.]. And [I] later became a member of the National [Resources] Planning Board under Mr. [Charles W.] Eliot, who was the national planner

under President [Franklin D.] Roosevelt.

HOLDEN: Now, it's also true, though, that in a lot of cases, the cities, and I expect the counties, were a little suspicious of regional planning.

FOX: I don't think the cities were-- The city of Los Angeles always was jealous. But I don't think the other cities were. We had excellent cooperation from all the incorporated cities, including the bigger ones. The bigger ones were three: Pasadena, Long Beach, and Santa Monica were the largest. Mr. [John] Morton, who was public service commissioner--that's for Santa Monica--was a member of our city engineers association. We worked together. And the city engineer at that time was J. J. [John] Jessup--of the city of Los Angeles--and he was a member of the engineers association. He was the one that nominated me president. So I had wonderful cooperation, even with the city of Los Angeles. Although the city, as such, was jealous of the regional planning commission, particularly later on-- The city engineer that followed, Lloyd Aldrich, was almost hostile. But not Mr. Jessup and Mr. [Harvey A.] Van Norman, who followed Mr. Jessup, and then Aldrich followed later. Although I got along with [him], Aldrich was always jealous of his turf. He was afraid that planning was going to encroach on his territory. Actually, he could have used a lot of planning.

HOLDEN: I have heard that there was a little problem created of the proper turf, even in the counties, between the old county surveyor and--

FOX: Not the surveyor. No, the county surveyor was a hundred percent. Mr. [John E.] Rockhold, county surveyor, and Mr. Alfred Jones, his chief deputy, worked with us. He was a planner at heart. He was an official member of the commission, and he was a member of my advisory engineering committee. I formed an inner county technical committee made up of the road commissioner, the county surveyor, the flood control engineer, and myself, chief engineer of planning. We worked all the county's development problems out with the aid of that committee. But the road commissioner, Mr. [George] Jones, his staff-- The funny part is that all that hostility from that department didn't come from the head. His office engineer, Bill Sprottie, thought planning was a waste of time. Bill and I were personally friendly, but I know he bucked planning. He tried to make us look bad.

And so did the Automobile Club of Southern California. Mr. [Ernest E.] East was chief engineer of the Auto Club, and he used to make fun of planning. And yet, I served on his committee that met at the club with the state highway engineer and the engineers of all the railroads as an engineering committee. But I knew in his heart he

despised planning because he just thought that he had the best answer to a county highway plan. The Auto Club actually wanted to be the leader in planning, for their Auto Club maps, wanted to have the-- We'll say the prestige of establishing the highway plan by their automobile club, which, by the way, followed around right-angle turns. They never got a real straight plan, until we finally adopted one. Bit by bit, his assistant, Mr. [Harold] Holly, who was a neighbor of mine and played tennis with me, he was cooperating a lot. That was part of our selling job. We didn't mind that. It didn't bother me a bit. By the way, Ernest East would throw his chest out and tell how he was a member of the highway department as highway engineer, and he knew more about road building than I ever would. He was older than I. I respected that. I just yielded to him and said, "Why sure, you're a great man." That didn't bother me a bit. I mean, that helped us develop and get along. We knew we were right. We knew planning was correct, so why worry. Let Ernest East be a big shot at the Auto Club-- he had no official standing. We knew we had an educational job to do. That's all we knew. It didn't phase us. I never lost any sleep about it.

HOLDEN: Okay, how did you relate to some of the board members, in terms both of responding to their interest and also educating them?

FOX: Good question. Pomeroy had the board members in the palm of his hand, mainly through their chairman. I forget who the chairman--

HOLDEN: Was it [Raymond] Darby or Jessup or--?

FOX: Oh, no. Long before that. They come much later. They come much later. I forget his name. [John McClellan] But anyway, Pomeroy would appear before the board. He always had the board on his side, because he was such a powerful orator and he knew the laws so well. He knew the board's problems as well as they did. His main problem was to convince the county counsel, who also was legal adviser to the board. The county counsel then was Mr. Everett [W.] Mattoon.

HOLDEN: Mattoon? Of the Mattoon Act?

FOX: Oh, yeah. The Mattoon Act. That's why he became a Christian, through the Mattoon Act. But we had to educate Mattoon on planning. We had to make a convert out of Everett Mattoon. He was not for planning. He was a great orator, too. He and Pomeroy would be sometimes on the same program. He was an orator and a suave, fine-looking man. He was a handsome man. I tell you, he was a real opponent on any platform. For Pomeroy or anyone else. He had great poise, he had a great personality, and he commanded respect because he knew the law.

You must remember the fact that he could infer that

planning had no legal basis and we were in trouble. That inference was made many times. For instance, our legal adviser from Mattoon's office during the time of us preparing plans and zoning--and we were now getting into real planning--was a member of the staff by the name of Claude McFadden. Claude McFadden finally wrote an opinion, that was upheld by the superior court, determining that our zoning ordinance was illegal. I think Mattoon and McFadden got some pleasure out of finding something wrong with planning. We had to start all over again. That first zoning ordinance was not all illegal, but we had prepared a plan on it for a little city right next to Alhambra.

HOLDEN: El Monte?

FOX: No.

HOLDEN: Monrovia? No. Rosemead wasn't incorporated.

FOX: Rosemead was part of it.

HOLDEN: Monterey Park? Alhambra?

FOX: No. South of Duarte and north of Alhambra.

HOLDEN: Azusa?

FOX: No. East of it.

HOLDEN: Glendora?

FOX: It's now an incorporated city. But we had a zoning plan there, and the zoning ordinance was declared illegal. A plumber took us to court and he won regarding an exception. We would learn what not to do about

exceptions. [remembers the name] Temple City. Temple City.

HOLDEN: Oh, Temple City. Yeah.

FOX: Temple City, over a zoning case, went to court. And McFadden, our so-called legal adviser, didn't help. But anyhow, I wanted to get rid of McFadden. He was always telling us what we couldn't do. Every advanced idea we'd raise, he'd find some objection to it. So I went to the-- Hal [Harold W.] Kennedy then followed Mattoon. Mattoon got in trouble and had to resign. I have to tell you, I don't want to put this in the record, but he got dead drunk. The board asked him, and he had to resign. Hal Kennedy became the county counsel. Hal and I were very, very close friends, classmates at USC [University of Southern California].

HOLDEN: Let me ask you a question. Mattoon's resignation didn't relate to a technical aspect?

FOX: No, no, no. It was a personal matter.

HOLDEN: And then Kennedy came in.

FOX: So I went to Hal Kennedy. I said, "Hal, I've got to have a legal adviser to tell us not how not to do planning, but how to do it. In other words, everything we submitted to McFadden, he always finds out why it can't be done. I want an attorney that tells me the legal way to do planning."

We got Beach Vasey, and the picture changed dramatically over night. Beach Vasey had been city attorney for Long Beach. He was wonderful. Anytime we had an idea of planning-- You must remember, planning now was the vanguard, it was reaching out. But we didn't want to have another legal opinion or court case against us, so I would go to Beach, or any of our staff would, to test out our ideas. We'd have a staff meeting with him. We'd say, "Beach, here's what we want to do. How do we do it legally?" That's how we perceived our planning. So we always would have a legal base. As far as we know we never had a legal case against us since that time. Not during my time.

HOLDEN: All right, who was the next director of planning after Pomeroy?

FOX: After Pomeroy was Charlie [Charles H.] Diggs.

HOLDEN: Yes, okay.

FOX: Charlie Diggs was a member of Harland Bartholomew's company's staff, a famous national planner. He'd been already contracted to do planning, to help Glendale in working out a city plan. There were two members of his staff out west working the cities: Dem [L. Deming] Tilton, who later became planning director of Santa Barbara, and Charlie Diggs. Charlie Diggs resigned from Harland Bartholomew's staff and took the job of director of RPC.

HOLDEN: He did not stay too long, did he?

FOX: Well, he stayed-- I think it was two or three years. Yes, it was three years.

HOLDEN: Was it then that he moved down to Orange County?

FOX: Yes, he did. He was only employed with them on a part-time basis. [Kenneth] Sampson's the one who was really employed by the Orange County Board of Supervisors as its planner. I don't think Charlie Diggs ever became a member of their staff. I think he did some work for them because he was out of a job.

HOLDEN: Did he quit under pressure, or what?

FOX: Yes, he did.

HOLDEN: Was that personal or--?

FOX: It was personal. I didn't know it at the time, but he was in trouble with a girl member of the staff. I didn't know anything about it. It seemed the board did.

HOLDEN: That's a matter of record, I presume. Okay. Some of the other staff members you might want to comment on, like Earle Lloyd.

FOX: Very good, very good boy. Earle Lloyd more or less was my assistant, especially on aviation. He helped me prepare the [Los Angeles County] Master Plan of Airports. He did the drafting on it. Naturally he was not an aviator, but he loved aviation, and he liked to be around it. He was very susceptible to following direction and

good at research. Time meant nothing to him. He really was a devoted young man. I give him the responsibility of preparing the publication of the master plan of airports. Earle Lloyd did all the work on it, really. Most of it.

HOLDEN: All right. Let's talk for a moment about airports. Did the airport plan come before the county had an Airports Division?

FOX: Oh, yes. Oh, yes indeed. Long before, years before.

HOLDEN: That seems to have been a major interest of yours. How did that relate, and when did you really start to be interested in aviation?

FOX: When I saw those aviators in the New Orleans airport when I was at the New Orleans railroad station when I was coming out West.

HOLDEN: When did you learn to fly then?

FOX: I started to fly in 1925. I learned to fly, and I wanted to build up my hours so I could qualify for entering the military. And I taught flying out at the then Mines Field. I taught my students for free, just to build up flight hours. All they had to do was to pay for the rent of the airplane, fifteen dollars an hour. When I built up my hours to two hundred hours, I made application for a commission in aviation in the U.S. Marine Corps.

HOLDEN: As reserve at that time?

FOX: As reserve, yes. All I got was first lieutenant

commission as a student pilot. I had to qualify after that as an aviation pilot. I'd already been in the army as first lieutenant, so I was commissioned as first lieutenant, but only as a cadet flyer, student pilot. I had to qualify for my wings later.

HOLDEN: I see. Now, what I'm interested in at the moment is, how did the master plan of aviation get initiated?

FOX: It was initiated because we saw the need. I formed an aviation committee--I have the names of them somewhere--made up of the outstanding aviation people of the county: the head of all the airlines [Warren Cary]; Roscoe Turner, a great racing pilot; also the head of the National Guard Aviation [Paul Jeffers]; and the head of the Army Air Corps then [Lieutenant Presler]. These experts advised me on the aviation implications of a master plan of airports. I knew very little about aviation. All I was was a student or private pilot. My concept was very limited. I knew that there was much work that needed to be done. And the first thing-- Oh, the thing that really brought it to a head was there was a great movement out in the [San Gabriel] Valley to establish a major airport out near El Monte, where the Rio Hondo and the San Gabriel River come together as a kind of a peninsula. They wanted to turn that into a major airport for relief for Los Angeles. I had to have advice about it. There was a very strong movement to acquire that

land.

So we did prepare a master plan for that particular site. By the way, the actual drafting was done by Werner Ruchti. You'd give Werner the idea, and he knew how to design the best use of the land, embracing the ideas that we aviators and all the aviation committee gave him. He really designed the plan. They had no idea where administration should be with respect to hangars and planning runways and traffic and so forth. Well, that was where Werner Ruchti excelled. Give him the specifications, and when he laid it out, it fit the landscape and all the things that people needed. He was a genius. I was like Plato at the feet of Socrates. He would come to me-- As a matter of fact, his plans were so advanced I had a hard time following them. He would say, "Well, Bill, you can sell it--you're an engineer. Here's the plan." He had such confidence in me. He had more confidence in me than I deserved. I had great confidence in him. He thought I could do a lot of things that I wasn't sure of. He was the first one that I ever saw that really designed cloverleaves to handle traffic at major intersections, that are now commonplace on all state highways. To me, it was so farfetched and frightening. And he would say, "Well what are we going to do with the extra land? We'll make a park of the land. We'll do--"

He was such a genius, he and Pomeroy, both of them. That pair was so great. All I did was follow. All I did was try to keep their stuff on the ground. They were the planners. I was not a planner. I grew to be a planner of sorts by working with those great men, working with them, absorbing their ideas, their vision of future needs. When they left, all that inspiration left with them, left me with what they left with me. I had to carry on from there, because I followed Charlie Diggs, as you know, as director and chief engineer.

HOLDEN: Yes. Now, what year was that? You indicated that Bryant Hall had a large part in this, a major part in preparing the airport plan.

FOX: No, not the airport plan. Bryant knew nothing about aviation--he was not the type. The first plan, known as the "Regional Plan of Highways, Section 2E, the San Gabriel Valley," was published in 1929. The studies and subject matter in the plan were conceived and composed by me as chief engineer, but the text never would have been published in the form prepared by me if it hadn't been for Bryant Hall and his brilliance. Bryant was a true scholar. He became the editor of all our official reports.

TAPE NUMBER: II, SIDE TWO

JULY 15, 1985

FOX: Bryant Hall made up the dummies, as they call it, where the subject matter would just hit the page and the script would be properly related to various diagrams, like I show here. These are intersections. This plan, to me, really told how the highway plan was prepared and how the airport plan was coordinated with the highways. And also, it was the beginning of a zoning program. We have one [diagram] on page 64, an industrial situation of 1929. It showed where all the industries were, along the railroad. Bryant Hall, I would say, is the man that is completely responsible for composing the text of this report. The material naturally was the result of much work in the drafting room, many conferences, and a lot of work with stenographers, and so forth. But I would give him full credit for all the editing of these reports, really. Now, you asked about dates.

HOLDEN: Let's see. I think the one we were talking about was when you became chief engineer and director.

FOX: Charlie Diggs was director in 1929. We know that.

HOLDEN: Now, do you have the Long Beach one in '30?

FOX: Long Beach, Section 4. Charlie Diggs was director, and I was the first assistant as chief engineer in 1931. Then comes the highway traffic survey. By the way, the

full credit of that goes to Charlie [Charles D.] Clark. He labored like a dog. I mean nights and days. He's responsible for making the traffic counts, for hiring the people who were on relief--hiring men that were on the WPA [Works Progress Administration] rolls--and he guided and directed the preparation of these maps showing the traffic load. You'll notice on them my name as chief engineer, right on the copy. Charlie Clark was division engineer of subdivisions. And I give Charlie Clark one hundred percent credit for that entire wonderful piece of work of a comprehensive traffic survey. He was the one that had to do the whole job.

HOLDEN: Well, now, by 1937 you were the chief engineer of the regional planning commission.

FOX: I was chief engineer from 1926. I was not the department head in 19--

HOLDEN: This plan doesn't list any other here.

FOX: Now, see, in 1940 I was the department head. This whole report is under my name, so I know. Now, what does it say there?

HOLDEN: It has your name down at the bottom of the page there.

FOX: Well, I was the department head then. I was the director and chief engineer of the department then. By the way, I'll have to tell you about that. I don't know

whether you ever got the news on that, but I never wanted that job. When Mr. Diggs resigned, the commission and the board of supervisors were the ones that were shopping around to find someone to take that job as director. They were talking about all kinds of people, including C. J. S. Williamson, who had been in charge of the planning department of the Los Angeles [Area] Chamber of Commerce. It finally came down to where the board told the commission, and the commission took me to lunch--two or three members--and told me that I was their selection.

It shocked me, frankly. I didn't want it. I saw trouble ahead. We were having friction with the zoning engineer at that time, Billy Williamson. The board was dissatisfied with him. He was a very brilliant man, but he was too good and he knew it. He was talking down to the board at their meetings; he was talking down to the public. He had great personality. He knew zoning--he was the strength of the zoning section. I think it kind of went to his head. I think Billy became a little arrogant, from the board's standpoint, and it annoyed them and it caused them problems. So they thought that I could, from my temperament, that I could keep him in line. And besides, they thought that, having worked with Pomeroy and all these planners, that I probably was the best qualified.

Well, it wasn't for me to say I didn't think so.

Frankly, I didn't want the job. I'm an engineer, and I told them so. I said, "If I become a director, I divorce myself from the engineering field." I said, "That means more to me than anything else, more than the title of director. I'm satisfied as chief engineer." And I finally got Ray [O.] Baldwin, chairman of the commission, and another member, Frank Schrimpton, to agree with me. Both were sold on my point of view. They took me to lunch along with Mr. [Roger W.] Jessup, chairman of the board of supervisors. [I said] that I didn't think I would be the best man, that I liked engineering and I didn't want the change of title. And finally they said, "Well, suppose that we change the title of director to chief engineer." I said, "Well, I don't think it's the thing to do." I had them sold. And then I read the newspaper two days later and I found out that the board had passed an ordinance and wanted me as chief engineer and director of the regional planning commission. And so help me, that's exactly how it happened. When I had it, I said, "I'm going to really do it then. I'm going to give it my best."

I'll have to say this, that all the bad things that I imagined that were going to happen, to take me away from my planning concept and have to solve a lot of staff problems and personal problems, never happened. Except a serious problem did occur with Billy Williamson. I had to make a

major decision later on that I think was the worst decision I ever made. I regretted it. I had to fire Billy Williamson. I think, as I thought back, that I should have found a better solution, because there was too much good there to lose that man. After being fired he went to pieces. He went to the bottle and died very shortly. I knew his wife. He had a lovely family. I liked Williamson, I liked him so much. But the complaints became so strong. The board would tell me, "Well, he's out on the golf course. He's not even on the job." They were telling me what was happening. I would take Billy in and talk to him, and he'd admit it and promise to do better.

Finally I saw the things happening. I began to write these violations down as evidence, because I knew there would have to be a hearing before the Civil Service Commission. I kept cautioning him. I don't think I tried hard enough. I just believed there was so much good there. I think that I was then becoming defensive, more protecting myself instead of trying to help him. Finally, one day I called him in. I said, "Billy, it is all over for you." He tried to plead for it. I said, "That's too bad. It's all gone." That was the end. I'm sorry about that. I felt very bad about that. It's the only time I ever had to do a thing like that.

HOLDEN: Firing someone is not a particularly easy thing to

do, is it?

FOX: Not so much that being a department head is so difficult--I just feel I didn't do a good job with that man. I thought that there was too much good there to lose. I just feel now that if I had to do it again, I could make Billy Williamson over, because with the experience I gained with the years as a leader I could dominate him if necessary.

HOLDEN: All right, let's go for a moment to your relationships with members of the board.

FOX: Board of supervisors?

HOLDEN: Board of supervisors, particularly John Anson Ford and perhaps Jessup and Herb [Herbert C.] Legg.

FOX: And John [R.] Quinn, the president of the board.

HOLDEN: John Quinn was--

FOX: He was chairman.

HOLDEN: Of the board of supervisors?

FOX: Oh, yeah. He was the one who appointed me as head of the planning commission and also as head of the building and safety department [now division, Los Angeles County Public Works Department]--right during the earthquake of March 10, 1933. When I was down rebuilding towns [after] the earthquake, I found out I was appointed the head of the new department and I was its chief engineer.

HOLDEN: Well, many planning directors, and other people,

really get into trouble when they start dealing with the elected officials.

FOX: I didn't. No, my relationship with the board was excellent. I'll tell you what I think helped my relation, was through the Building and Safety Department, because-- As a matter of fact, [you] must remember, with the planning commission and the building and safety, and the department of aviation, at every board meeting on Tuesday, three-fourths of the things coming before the board were matters that concerned me. I had to be in that front row to answer questions. I mean, the rest of the stuff was garbage, routine, with that board. Real serious matters that they had to deal with were building and safety matters: electrical and plumbing and building and earthquake and zoning and subdivision and architecture and airports and so forth. The result is there had to be a good relationship between the two.

John Anson Ford, of course, was a lovely man. He was such a fair man. I think, without a doubt, he was the most ideal public servant I have ever known. His squareness and his honesty was above reproach. John Quinn was the power on that board. Did you ever see him?

HOLDEN: Yes, I think so. But it was almost before my time.

FOX: Great, big, powerful man. He'd been national head of

the American Legion and was respected all over the country, as well as the state. He ran Los Angeles County right through the Depression. I recall when we all didn't know if we were going to have jobs. As a matter of fact, it looked as if the county was going to go bankrupt, because taxes were not coming in. It was very apparent that they weren't going to meet the payroll. It was a question of whether they were going to give us warrants instead. The board didn't want to do that. He called all the department heads together and a lot of their assistants at the meeting of the board. He says, "Here's what the budget is, and we're going to have to cut the salaries of everybody in the county by 10 percent. Is there anyone that has the temerity to object?"

I'll never forget it. Well, everybody was so relieved: "I got a job. Boy, I got a job." And 10 percent-- We knew that we could look out the window and see the people selling apples on the street and see the soup line. We could see the banks that were closed. He was that type of man, with a sense of humor and knowledge of people. He says, "Anyone have the temerity to object?" And everybody just laughed.

HOLDEN: So you didn't have to lay anybody off?

FOX: As far as I know, by reason of the Depression, I don't recall any. Certainly none of the departments I had

anything to do with I don't think did, no. I don't think they had to. I will say, in any attrition--people that were resigning or retiring--they wouldn't replace them, naturally, at a time like that.

HOLDEN: All right. For the benefit, perhaps, in the future--

FOX: My relationship with the board was excellent all the way through. It's just that I think I had a wonderful board. They were very, very good to me. They were good to the departments that I had under my supervision. I think they were very good to all department heads that worked hard.

HOLDEN: Nevertheless, there must have been some times when their people would go to them, and they'd probably call you.

FOX: Oh, sure.

HOLDEN: Well, now, what were your techniques? Have you got some examples of that?

FOX: Oh, I developed many techniques. We get those with experience. Take the Building and Safety Department, for example. During the earthquake situation, why, we had inherited a very strict building code. The county never had any building code before, and now this new code was very complex. It was tremendously demanding in its requirement for resisting earthquake stresses. All my

inspectors had to be graduate certified civil engineers or certified architects. No one else, even clerks, was hired. They were available, so that was the requirement. So the department had a terrific technical background. I went around, and we established twenty-five branch offices. We'd just go down and say, "There's an office. Let's rent it." It was a wartime situation. Of course Quinn just liked that kind of action. The board liked that. Here's a guy that's a leader. Well, the situation required it.

But when we got rolling and now started to enforce that ordinance, man alive, the reactions we got were terrific. I'll recall one. The new code outlawed all brick construction, and Mr. [Walter] Simons of the Simons Brick Company--great big fat guy, practically the head of the Los Angeles chamber of commerce--just blasted me and the department and the board and everyone else. Why, we were legislating a big industry out of business, and it was the brick business. The Simons Brick Company was out near Montebello, where it had its pits, and it did all the brickwork in L.A. County. Now it was obsolete. There was no way that brick would figure as resistant to earthquake stresses. We hadn't even gotten into the makeshift reinforcing brick yet, which is very expensive and just about figures.

Anyhow, I wanted to give you an idea of what happened one time. One of my district engineers--by the way, from Bellflower--put a condemnation sign, "This building is condemned and unfit for human habitation and no one shall enter," on a building down in the town of Hines. And I got a call from-- Shall I use the name?

HOLDEN: It's up to you, but-- If you can.

FOX: Well, I'll say from so-and-so. So-and-so, who was chairman of the board. He had called the district engineer and ordered him to take that sign off. My district engineer, who was an outstanding structural engineer-- "Well," he says, "you better talk to Bill. He's my boss."

Wasn't long before he burned the line and called me on the phone and said, "Take that sign off. That's on the building of the editor of Hines's newspaper."

I said, "I didn't know that that made any difference on a building that was unsafe, Mr. X. By the way, I didn't pass that ordinance, sir. You passed that ordinance. We're just carrying it out. My engineers were qualified engineers, I assure you, and determined that building was unsafe."

"I don't care. Tear it off. He's the editor."

I said, "Mr. X, let's get steady on this, sir. I'm not going to tear it off. You can take it off if you wish. I can't stop you. But I'm not going to take it off,

and none of my men are going to take it off. I want to get steady on this. And, sir, if you tear it off you may be sorry. You may have to answer to a grand jury."

Well, he jammed the phone down. That's the last I heard of that.

Now, we had many calls of that nature. Once I got a call from another supervisor. He's now a congressman, so I won't use his name. He called on the phone. First he called the district engineer, who happened to be down in the Inglewood area, Steven's district. Steven was a good structural engineer. He had made a determination that a certain type of building material would not qualify. Therefore it couldn't be used, according to the building code, and he governed by the building code. This gentleman called me on the phone, and he was a different type of man. The first one ordered me to tear off an "Unsafe" sign. This one put on a scene and said, well, that just had to be taken care of.

Well, I just put it in reverse, and I said, "Well, Mr. so-and-so, are you ordering me to allow that? I want to advise you, sir, that I have a recording on my phone, and I have a safety deposit box for illegal orders."

"No. Oh, no, I'm just asking you. I'm just asking for information."

"Well," I said, "that's just all I want to know." But

I said, "I must tell you that the district engineer is carrying out the ordinance that you gentlemen passed, and if you wish to bring that up to the board to amend the ordinance, that's your prerogative. Whatever you amend, we'll do. But while that ordinance is that way, Mr. so-and-so, I'm sorry, but I'm duty-bound to carry it out."

Now, I can tell you that wasn't just gratitude on my part. The board members knew this. At the end of each year--most people don't know this--the grand jury always have over to the grand jury hearing room every department head of Los Angeles County informally. We didn't have to take an oath unless we wanted to. The district attorney gave us an opportunity to tell anything--you could call it whistle-blowing, what they do today--anything that we'd like to tell the grand jury that should be corrected. It would be confidential, and the board knew that. A lot of times things resulted in some criminal investigations. In one of the cases, one or two indictments resulted. For instance, you probably know a supervisor was indicted and sent to San Quentin on a deal that was made by him with a contractor on the San Gabriel Dam. He was Supervisor Sidney Graves from the Hollywood district. He would give orders over the phone. Of course, I had already built up an ear for that sort of thing. It got so that he wouldn't call me very much. He just simply told somebody, "That son

of a bitch, you can't do anything with him." Well, I kind of like that title, under the circumstances. Things got so bad, actually, [that] about the time he went to jail he had under his control certain departments. One was the then architecture department. So, yes, those things happened.

By the way, it not only happened to the board members, but sometimes things come the other way around. I can recall one time when they were building Lakewood [City]. That project was all under the estate owned by Mr. Clark Bonner who was one heir of the Pacific Union Railroad family. But the work was done by one developer. I don't want to use his name, because he later donated the great Music Center [of Los Angeles County] being promoted by [Dorothy Buffum] Chandler. So he's been sanctified and purified, I guess. But anyhow, we were finding terrible things happening down there. They were building so fast and trying to save money by the damnedest schemes.

For instance, I had good inspectors and they were honest men. I had a good chief plumbing inspector and chief electrical inspector. The plumbing inspector came to me. "Bill," he says, "something happened. They're building too many cesspools down there, and I haven't seen the brick supposed to go into them." So I says, "Let's go down and take a look." We'd go down there and find a slab. We'd say, "Well, let's open up that slab and see if

we'll find there a cesspool." And when opened we'd come to nothing, just a slab. We'd go down and we'd find a whole building-- Instead of using no. 1 lumber, which by the code has to be marked on all studs-- That means it must be free of knots. It must be labeled with the lumberman's no. 1 rating right when it comes in from the lumberyard. We'd have to tear many out that did not qualify. They would try to get in there quick and get the walls plastered up before inspection. Well, we had to have a look at things before plastering, and we got things straightened up.

Finally, one day I got a call from my district engineer. "Bill," he said, "I'm in a terrible spot." He says, "I just found a case of whiskey inside my office, right on my desk. It has on there 'Compliments of so-and-so and so-and-so,' the man that was building all of Lakewood Village." "Well," I said, "just hold it right there. Don't touch it and I'll be down." So I got in touch with the district attorney, Ernie [Ernest] Roll, who happened to be a fraternity brother of mine. I told him the story and I said, "Ernie, this has been going on for some time. It's now coming to a head. What shall I do?" He said, "All right, I'm sending George Kemp, my chief deputy down there, right with you. Go right down there, and I'll send a messenger to have Mr. so-and-so meet you at that office." They were all there when I got there. Mr.

so-and-so was there, the deputy district attorney was there, the deputy was there. The deputy chief there said, "Have you mislaid some property, Mr. so-and-so? It has your name on it. Maybe you better take it out."

I'll tell you another one.

HOLDEN: Just a moment before you do. [tape recorder off]

FOX: We had another dilly out in the Montebello district, really out of the City Terrace district office. Huey [Hugh] Reed was the district engineer, and he called me. These fuzzy things were beyond their scope to deal with, and they weren't supposed to deal with them. He called me and he said, "My inspector down here, on going to a job, a certain individual gave him an envelope with hundred dollar bills in. There's five hundred-dollar bills in it. What will I do with it?" "Well," I said, "I don't know, but I'll come out to see what to do."

So I started thinking on the way, "What will I do with this?" I went out to get this young man and I said, "Who's the man who gave this envelope to you?"

He said, "So-and-so and such and such an office."

So I said, "Let's go in and talk to him." So we went in. I said, "Well, Mr. so-and-so, have you mislaid something?"

He said, "Oh, yes." He said, "I gave him that envelope, and I didn't know what was in it."

"Well," I said, "I'm going to mail this to the Red Cross." I marked "Red Cross" on it, and I said, "Come down to the mailbox." And I put it in the mailbox.

So you had to meet these kinds of things as part of an inspector's job. You had to have your criteria of conduct, what are your standards, and you began from there to deal with these sleazy situations promptly and bluntly.

HOLDEN: Okay. In the building department, many of those were very clear-cut. Now, there are some degrees that relate to influence, which it is pretty hard to say is really corrupt, but it begins to approach that.

FOX: To whom do you refer? To the staff or to the director or to the board or to the commission?

HOLDEN: Maybe the board or the commission is saying--

FOX: The board is always subject to that kind of pressure. That's part of their job. It all becomes a matter of where does it go from there. How much of that influence reflected from them to their departments or their department heads or to commissions? All right, I'll begin and show you that it's not my business to inquire into what influence is brought on the supervisors. That's their business. So I keep out of that. I don't want to know about that. Sometimes I've had architects say to me, "Do you want me to tell you how much I paid so-and-so supervisor to get my contract drawing plans for the county

court building?" I would say, "I just don't want to know. It isn't going to affect me, so I don't want to know. Don't tell me. I don't want to have any different feelings toward that supervisor." All I was saying [was] "I don't know whether you're telling me the truth either. So I just want to stop that right there."

*[Now, to give you a clear reading on the matter of dishonesty and/or corruption, over thirty years of service I do not know of a single case of corruption or criminal dishonesty on the part of a single member of the board of supervisors except Sidney Graves, who was found guilty by the courts and sent to jail. Frankly, I am proud of the board members I served for twenty-nine years.]

Now, the commission, as far as I know-- I've seen commissions come and go. I thought I had a good commission. I think that the thing that makes the difference between whether influence is brought on the commission is the staff head, the director of the staff. *[He must know his job, he must be a leader and a manager. He is the one who coordinates the skills of the staff to produce a result that represents the combined effort of the staff.] Because, after all, he is the one

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* General Fox added the following bracketed section during his review of the transcript.

bringing the information and recommendations to the commission. What they do from then on, either to adopt or to not adopt, to approve or disapprove, is a matter of record and the official decision of the department. But I've never had one inkling of pressure from the commissioner ever to influence my judgment--on the contrary. For work assignments and guidance, the staff looked to the head of the department when Pomeroy was the head, the same when Charlie Diggs was the head and when I was the head, as to what they are to do, what do we have before us, what our approach should be as a team. Now, we had to lean backward to try to not anticipate a conclusion, a finding. "Get all the facts," I tell the commission. "These are the facts. You as a commissioner consider them from the civilian point of view along with the technician. I'm not going to recommend what you should do."

Now, there's a reason for that. We would get calls from certain ambitious reporters who wanted to know what the commission action was going to be. Some were very annoying in this respect. Wanting to have the scoop on the rest of their colleagues, [they] would say, "But I know they're going to take your recommendation. What is your recommendation going to be?"

I always said, "Mr. so-and-so, listen. I'm an

employee of the county and employee of this commission, and I'm not going to tell you what my recommendation's going to be, because whatever the action of the commission is going to be, it's their official action on the case. And it's not going to have any significance until they take that action. I can also tell you that commissioners have minds of their own. You're kidding yourself if you think that they're going to be governed by my action or my recommendation. I'm not going to recommend the action they should take. You know that. I simply give the commission the facts and the opinion of the staff."

He says, "All right. I'm going to publish what the action is now"--to try to force my hand.

"Okay, I know who your boss is. You're the reporter for the **Long Beach Press Telegram** or the **Pasadena Independent**, and I know both of those newspapers are headed by very fine gentlemen and responsible publishers. I don't think they would like what you just said." Well, theirs was a bluff. It never happened.

By the way, I'll go into one other. During those times-- We were talking about the direct relationship between the board and the commission and the board calling us directly. Then came into being the field secretaries. All those came and developed later. All the board members finally had them plus one girl secretary. First they had

one field secretary, but then they finally had a staff. Then is when departments were harassed by field secretaries coming and saying, "I'm speaking for my supervisor," and making all kinds of shady requests. They'd go to one of my district offices and try to get the district engineer to do some favor for a friend. I would say, "Well, have your boss speak to me. It's just that the phone line is the same distance from his office to mine as it is [from yours to mine]. Good-bye." I would not do business with a field secretary unless it was in writing and signed on behalf of the supervisor, and I wouldn't want any of my employees to do otherwise. That was a rule, and anyone that violated it violated a department policy. There's only one way to do it, and that's the way. Don't tamper with the department rules.

HOLDEN: In later years, that was not always followed, was it?

FOX: I don't know whether it was or not, but if you give ground on that once, you're going to be wide open. I know that they know how I felt about field secretaries. *[After all, it was well known that they were on the payroll of the county for the purpose of preparing the supervisor for

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* General Fox added the following bracketed section during his review of the transcript.

reelection. They were not responsible to or served the taxpayer. I was.] I didn't quite despise those guys, but I didn't trust them. I would say, "You have your supervisor talk to me." Then he'd go to one of my district offices or to one of my staff for such irregular requests. The employee would say, "You'd better talk to Bill." A lot of times they wouldn't even try to, after a while. They gave up on that ploy. Finally, it dampens out. But you've got to stop it right at the bud.

Sometimes you'll have an employee that wants to make himself look good. That will help him on promotion or something. [He] reasons, "If I become buddy-buddy with a supervisor or become buddy-buddy with a field secretary, I'm in clover." I would say, "Listen. You'll make yourself a hero with him and a heel with me. And you're working for me. Just remember that. Make your decision, which way you want to go." You've got to have it just that clean. No compromise. No wishy-washing around. That's the only way to run the ship.

Now, even a board member like John Anson Ford had to make a decision against me once that meant a lot to me. I mean, I was publicly presenting plans before the board of the new county courts building, along with the architects. I wanted Hope Street to go right through. I didn't want it stopped as it was in the official civic

center master plan. It should have gone through. The businessmen downtown wanted to close the street. They got the architects to agree. So the architect, the chamber of commerce, and Downtown Business Association were all against me. I was all by myself. I had to go before the board to argue my case. I had a model of it. We took the architect's plans and just put them into relief, made a model of it, so it was his plan I was showing. It wasn't something we were manufacturing. [I wanted] to show the board the merits of what I thought was better planning for the building and for the traffic system of Los Angeles. Oh boy, the power behind that was so great politically!

Finally John Anson Ford--I'll never forget him--he said, "Bill, I regret to do this, but I'm going to have to vote against you."

"Well", I said, "Mr. Ford and members of the board, I can't fault that, and I can't complain to that. I was entitled to a hearing, and I had my hearing. Whatever the board decides, I've got to follow the orders, and I will. I will loyally."

But I kind of liked John Ford really, especially for that. He let me down very easily. He didn't make me lose face at all. He made a little speech. He said, "We have followed your direction. You've never failed to guide us well. We always knew, Bill, that when we had any dispute

on the board here, we'd say, 'Refer to Bill Fox.' We knew we'd get a straighter answer, an engineering, a technical answer."

I said, "That's the only answer I know, Mr. Ford. I don't know the political answer. I have no interest in what the political implications are. I don't know what they are. I wouldn't be able to guess at it."

I never did. I didn't want to go into it. I'm not capable of it. I didn't want it to confuse my mind or my people. My staff was the same way. Because if the headman is unsure, then your people are unsure also. If he stays put, by gosh, then when someone tries to foul him up, they're going to say, "Well, I'm sorry. You'll have to see the headman."

HOLDEN: Okay. Now, let's go to another subject. You, from time to time, had a little problem with an adequate staff. Do you want to talk about that a little bit?

FOX: I found that when I came back from the war. I had the staff honed up, finely honed and trained to a high point of efficiency when I went on active duty. But during the war, a lot of things fell apart. We lost valuable staff members one by one. We lost Sampson. We lost Bryant Hall. We lost Werner Ruchti. I think we lost Charlie Clark. I think we lost Joe Mellen. I mean, my golly, there's the superstructure of a staff. The rest are

students. Who the hell is going to teach them planning? I had to begin where Pomeroy left off and carry on. I could never be a Pomeroy, never in the world. All I could do was to carry on as an engineer with what concept he had built into my enthusiastic mind and being. Because I was an enthused planner now. There's no doubt of it. My limitations were only the limitations of what I wasn't able to absorb from that great man and from men like Harland Bartholomew. I followed his lectures, too. I tried to measure up to him. He was one of the best. He made his living by planning cities. He laid out cities all over the country. So then when I came back and found out what had happened, it was disheartening. And then, you must remember too, I came back partly still in shell shock from war. I'd been wounded and had spent many days in the hospital in New Zealand.

HOLDEN: I didn't know that.

FOX: Sure, I was wounded on Guadalcanal, 31 January, 1943. I'd been hospitalized in New Zealand and hospitalized in New Hebrides and San Diego. As a matter of fact-- I don't want this to go on the record, just this part here. [tape recorder off] I was taking over a shattered department. Even when I was still in the hospital at San Diego and hadn't been separated from the service yet, the board was very anxious to have me come

back. They were so anxious that they kept writing letters and urging me to come back at the earliest possible time. And yet the service wouldn't let me go until I could be either discharged or go back to duty or retire. That takes time. I'd try to keep them advised, and finally I think I came back a little before I should have.

When I came back I started making a survey of what the situation was: What have I got here to work with? Where do I begin? What other problems do I have? What are the unfilled assignments from the board? What is the work load? What have I got to work with? Well, it was a pretty sad-looking situation when I put it down on paper and got around to analyzing it and saw what I had. All the instructors, all the men who were so imbued with planning that solutions were almost automatic with them, were gone. Here I was, right in the middle of problems in the building and safety department, which now had made tremendous strides in building after the war. Then on top of that, the board added the department of aviation. Because now it wasn't an aviation plan; they were buying airports. They bought, as you know, Palmdale Airport. We had acquired Palmdale Airport, a big project. Then they bought Compton [Airport] and then they bought Brackett [Airport] and others.

HOLDEN: El Monte [Airport]?

FOX: Yes, El Monte. And then the one out at Pomona [La Verne].

HOLDEN: Brackett.

FOX: Brackett, a very good field. That's where that editor wrote a story about me [**La Verne Ledger**, July 1, 1954]--I went out there to save Brackett. Well, I mean [they] had a tremendous surge for aviation. And then on top of that, the board started sending me and Bill [William B.] McKesson back to Washington to get grants for rebuilding the schools, for earthquake damage, and for building the [county] courts building. Well, that took time away from my new problems. Bill and I had to make a tour all over the East to find out what courtrooms should be like, like reducing the decibel level of the air-conditioning so it wouldn't interfere with witnesses or the decorum of the court. And I certainly sat down and wrote those letters to the board. It was my duty to appraise them of the status of the job and problems we had. This was their problem as well as mine. And it was my job to let them know it was theirs in no uncertain terms. I think those letters were pretty much on point. I didn't beat around the bush, and I had to come up with a remedy. And the remedy was to hire these men back. It wasn't a matter of hiring other people. Other people had to be taught planning; there wasn't time for that. But we didn't hire

them back. We had to do the best we could, and that was a great strain on me. And then on top of that, the board decided to amalgamate all of the engineer departments under one head--create a department of county engineer, which they never had before, and county surveyor.

HOLDEN: Did you either initiate or support that?

FOX: No, I didn't know anything about it.

HOLDEN: Didn't know anything about it?

FOX: No, didn't know a thing about it until one day-- I think that we all saw a lot of duplication. We complained about duplication, but we never thought about amalgamation. No, I didn't think it existed until one day Supervisor Herb [Herbert] Legg called me over the phone. Art [Arthur J.] Will [Sr.] was then chief administrative officer, and Art and I got along very well. Legg and Art had me into a secret or confidential meeting and told me what the board wanted to do. They sprung this and said, "Bill, we want you to be the head and put it together."

Well, I tell you, I was astonished. My mind started flashing. Well, yes, I could see how we could create the office of county engineer--a really big engineering department and construction department. I could see how the surveyor and building and safety and even road department surveyors could be consolidated into a public works department. But I said, "Gentlemen, the

architectural department is part of the mechanical engineer's department. And the mechanical engineer, in addition to handling elevators and steam boilers, handles all the cars of the supervisors over at the shop"--which was a political thing that stunk. I said, "Well, gentlemen, I'm very flattered. I don't hesitate in telling you I am able to handle this job. I can see how it should be done, and I can see why it should be done, but," I said, "not including the mechanical engineer department." I said, "Listen, Herb, you'd be on my neck when your car wasn't ready or having trouble. So would all the supervisors and all your field secretaries. I want nothing to do with the car situation. It's political."

So they said, "All right, supposing we eliminate that?"

Well, I said, "Also the mechanical thing, elevators. That's not civil engineering. That's not part of a public works department."

"All right we'll eliminate that. How about the architecture?"

"Well," I said, "I think maybe that's reaching out, but I think okay." So we put the architecture department in.

I was astonished. Incidentally, I had no hesitation I'd be able to do it. I knew just how to do it. I

prepared then a plan of the Department of Public Works with all these divisions. That sold the civil service people. In fact it won me a good grade with the civil service commission when I took my examination.

But I knew there was going to be a terrific examination on the laws of the county surveyor, and, boy, they were tough. I knew there was one man that could beat me right then on a knowledge of all the laws affecting the duties of county surveyor. That was Frank Poor. He later became head of our plan division. There were going to be a lot of questions. I thought about county surveyors' laws and all of their complications. And Frank, that's where he was born. He knew it. He was the office engineer for the county surveyor, Alfred Jones.

But Frank became very ill, and he became incapacitated about the time they appointed me. And the civil service had a rule then: if he was out so many times, he had to be laid off. I went to bat for Frank. "No, he's too valuable a man. We just formed a new county engineering department, and he is in from the county surveyor, their mapping department, which makes the maps, the county surveys, and the wall sheets and everything else." I said, "The man is indispensable." I think I can say I saved Frank's job. Frank never forgot it. Later, when he became well, I appointed him chief of the [Survey and] Mapping Division. We are close friends to this day.

TAPE NUMBER: III, SIDE ONE

JULY 15, 1985

FOX: Continuing my exposition of the putting together of the new department of county engineer and surveyor. Later the charter was amended to drop the title of surveyor and make the title "County Engineer." Until that was done several years later, it was "County Engineer's and County Surveyor's" department. This was the bringing together of all the engineering departments--or most all the engineering departments--of the county into one department. In other words, it took the engineering departments from the fire warden's department, from the playground department, from the mechanical engineer's department, the architects department. The water department became part of the county engineer, the building and safety became part of the county engineer, the construction department became county engineer, and all sewer and water construction also. I can say this categorically, that all of it went together beautifully according to a comprehensive Public Works Department plan of twelve divisions. And it was harmoniously accomplished. The engineers that were the heads of those departments before became the division heads of a great county engineer's department.

But as time went on-- I was also still carrying the

job of chief engineer of the [Los Angeles County] Regional Planning Commission.

HOLDEN: Could we identify the year that this happened?

FOX: This was 1948.

HOLDEN: Right after the war, so it would have to be about 1948.

FOX: Pardon me, it would be about 1947, '46 or '47.

HOLDEN: The other question was, how come Road Facilities wasn't included?

FOX: Because the road department is a separate entity in the charter, we could not-- But we did take their surveying. We weren't ready to-- The idea was at some time in the future to amend the charter to do that, but this wasn't the time to do it.

But I found out the burden of [being on] the planning commission was just too great, particularly attending the commission hearings. I'd sit there in the commission hearings on their meeting day, sitting there for hours, listening to matters which were very important to planning. But here I was [with the] great responsibilities of this new great department, which had lots and lots of things to do, as did the aviation department [Airports Division], on top of that. I just had to make a decision. I had to ask the [Los Angeles County] Board [of Supervisors] to relieve me of the responsibility of the

planning commission.

Well, I talked to them personally, and informally, and they all agreed, but nothing happened. And I talked to the commission so they would understand-- Boy, the commission was very sympathetic, but they naturally wanted me to stay. Well, the board went on and just did nothing, and I approached them again. One time I even asked them in a public meeting, and they said that they were going to act. They didn't do anything, so finally I put it in writing to be relieved. They still didn't do anything, until I had to write a final letter and resign from the commission and leave the board to decide what they were going to do about it. So they had to find someone to take my place. I hated to do it, but I couldn't have lasted. I couldn't have stood the strain any longer.

HOLDEN: Did you have any feelings about whether the planning activity should be really a separate activity, as opposed to being a part of the larger civil engineering--?

FOX: Isn't it separate now?

HOLDEN: It is separate, that's right.

FOX: Oh, yes, I think it should be separate. Oh, definitely, I think it should be separate. There again, I don't think it should be part of any department. It should be a separate identity, definitely. It should draw on all these other departments--road department, planning

department, construction department, anything else--to make planning viable and integrated. But, no, it should be a separate entity.

HOLDEN: It can perform its functions better that way.

FOX: Oh, certainly. For instance, even before we were part of the county engineer's department, when we worked out this plan that you have in your hands there, I would get the county surveyors actually to run the surveys for our plans. And they did a beautiful job. In other words, they were an arm, so to speak, of planning. They were working out the details of planning, and also the road department did the same in construction. I would bring them in on constructing the planned highways in order to get the dedication of rights-of-way in exchange for construction based on our plans. Also, we finally worked out by this interdepartmental engineering council a policy not to accept a deed for new highways unless they conformed to our plan. Before that time, they would accept a deed and we wouldn't know anything about it. We'd find it out after it was on the county surveyor's wall sheets or somewhere.

Now, the interdepartmental committee aided Charlie [Charles D.] Clark to do the same thing regarding subdivision. That should be his story to tell, because he did a massive, marvelous job of bringing all the

departments in having anything to do with subdivision. That's a separate empire in planning. It takes the wisdom, experience, and the work and the energy of one man's whole life just for that alone. It has to be integrated with the overall comprehensive picture, but Charlie Clark was the great power behind that.

HOLDEN: The idea of a committee there, was that Charlie Clark's idea then?

FOX: Oh, yes, that was Charlie Clark's idea. That was his idea. It was his idea how to do it; it was his job. And he did it, he put it together. It became a very powerful committee. No one could tamper with Charlie Clark's committee on subdivision.

HOLDEN: It also seemed to speed up the process.

FOX: Definitely.

HOLDEN: Which seemed to be a problem.

FOX: The subdividers liked it because they didn't have to go to the flood control, to the road department, or a dozen departments having some jurisdiction over their subdivisions. All the departments were all there on Charlie's committee. I think his committee was made of about seven or eight very responsible department executives having jurisdiction over some part of every subdivision plan before it could be recorded.

HOLDEN: Now, that was initiated when, way back in the

twenties?

FOX: Well, let's see, let me see. Twenties? No, I think twenties is going back a little bit too far. I think we were limping along through the twenties. I think it was in the early thirties when Charlie formed that committee. Because in the twenties we limped along. We had to play it by ear for a long time before we got into having control. It took a lot of convincing. We misfired a lot. But once they got that committee established and got a subdivision ordinance that prescribed the standards and lot sizes, we were off to making planning effective. There was no state law yet when Charlie went to work. No, Charlie deserves all the credit. One hundred percent. I just backed him. [laughter]

HOLDEN: Good. Now, another one that we have to associate with you is the start of the Building and Safety Department and the one man--

FOX: That's a big story.

HOLDEN: Now, who really gets the credit for--after the [1933] earthquake--really getting this thing going?

FOX: Oh, that was my baby from the beginning. That was my responsibility, 100 percent. That was my headache, that was my job. I felt at home in that field. It unfolded-- I mean the problem determined the department organization and pattern. In other words, we knew, for instance, that you

couldn't bring plans into the [Los Angeles County] Hall of Records to be approved from Pomona and from San Dimas and from Long Beach and Lakewood--we had to have a local branch office. Naturally we didn't know a lot of the problems we were going to get into at first, we had to feel our way. I would rent those offices without authority from the county counsel or the county auditor and send them the bill. Those departments were wild with anger. And then they would take the matter to the board of supervisors, and the board of supervisors would ex post facto approve it. It had to be. It was that kind of affair. I was pioneering. The board knew that we had to throw the book away. Also, the hiring of men. I hired all the men. I got them from the PWA [Public Works Administration] roll, but I had to have the specifications approved by the [Los Angeles County] Civil Service Commission. Their requirements were that they had to be a registered civil engineer or a certified architect.

HOLDEN: That earthquake must have caused a real earthquake in the administration.

FOX: Oh, it sure did. It scared a lot of people. I mean, a lot of people were on the indictment list. Contractors and even a lot of legislators. There were a lot of legal questions there. The people were asking, "Why wasn't this done? Why did these schools fall down? Why wasn't there a

building regulation in the county?" So the board was very quick to adopt anything and back me. They didn't know what they were adopting many times, but fortunately they did adopt the uniform building code.

HOLDEN: Did you have a hand in that uniform building code?

FOX: I merely sat in on discussion of objectives. I really had nothing to do with preparing the code. We used to sit in as planners. The architects were talking for years about forming a state uniform building code. That was way back when I first came to the planning commission. I used to sit in just to keep myself informed. I had nothing to do with shaping it, not a thing. But I had a lot to do after they adopted it. I had to make it work, to enforce its provisions. I was the guinea pig.

HOLDEN: And get it adopted by the county.

FOX: No, no, I had nothing to with them adopting it either. I was out in the field tearing down buildings made unsafe by the earthquake when that was adopted. The grand jury said that the board had to adopt a building code now. Then the architects in town, I think, had more to do with the adopting of the uniform building code. It was the architects and engineers that had to do with building design and building construction. I think they were the ones who prevailed upon the board to adopt the uniform

building code.

But this code was new, and the architects and engineers didn't know all that it contained either. I never knew a thing about the building code. I had to go home and study it. So did my inspectors and my engineers. We had a job to do, and a lot of times we had to make our best judgment and say, "Well, you'll have to do it because it's the thing to do." We couldn't cite the building code--we didn't know it well enough. It contained over one thousand provisions.

HOLDEN: But apparently as you got to know it, you believed in the idea of a uniform building code.

FOX: Oh, yes. We in the Building and Safety Department got to know every provision, every page. It was our bible. Then we had to set up a board of appeals made up of an architect, a structural engineer, and a contractor. John Austin, who was the great architect who designed the [Los Angeles] City Hall, he was the chairman of the board of appeals, and Steve Barnes was the structural engineer on the board of appeals. I forget the others. There was a plumber on the board, an electrician, and a contractor. That was our safety valve. In other words, if a person came with some new type of construction, it had to go to the board of appeals. After all, the uniform building code is a statement of principles. You don't care if it is a

sheer wall, you can build it of papier-mâché--as long as it will figure for earthquake stress. If it is where it requires fire protection, it has to be of one-hour fire-resistant material. And figure for stress, what the code calls 20 percent of gravity in a horizontal direction. We had a way of deciding by calculations; we could determine by tests. We had structural engineers in my plan-checking division, the very best in the state. We used the so-called Hardy Cross method, the standard method of calculating indeterminate stresses, earthquake stresses. This method of calculating such complex stresses was invented by Professor Hardy Cross of the University of Michigan. [We] figured stresses down from a multistory building right down to the foundation by the Hardy Cross method.

HOLDEN: I'm not too familiar with that.

FOX: It's very complicated, but yet a very logical method of determining indeterminate stresses, because you're dealing with rigid frame. In other words, instead of having a column tied onto a beam, it's rigidly connected. Anyhow, that's a technical matter.

Anyhow, we established these branch offices. Then we had the plans brought into a plan-checking division by messenger and then taken out to the district office again by some motorcycle messengers. I was venturing into a lot

of unknowns. The county auditor didn't give a damn about my problems, [but] all the money collected had to be accounted for someday in his office. Well, we had no safes out there to take care of the money, so I had motorcycle messengers bonded and bring all that cash in every day into the county auditor. I mean, insurmountable problems were onto us. And then we finally had to have some way to hold it overnight, at least, or even for a day or a weekend. So we had to get some vaults. We didn't have any vaults. So we got chests not much bigger than yours and put them in the concrete in the floor. And that was approved by the county auditor and by the board of fire underwriters. But this motorcycle messenger thing was a headache.

In time, and with lots of mistakes, we were getting along fine. We had a chief plumbing inspector and a chief electrical inspector. Only one inspector was on any job, just one man. Eighty percent of all buildings are single-family dwellings. So why have a plumbing inspector, electrical inspector, plastic inspector, and a health inspector on every job? Multiple inspectors from five or six separate departments never agree. One guy would say you have to enclose in that driveway or that stairway for fire protection, and the health department says, no, you've got to have it open--it's a rattrap, so you've got to leave it open. And the contractor and the owners were always in

the middle. I said to hell with that. Then the fire inspector was in there--he'd have a different view. I said, "Well, you're a fire inspector. Give us your ordinance. We'll enforce it, we'll administer it. You can go around and check on it and tell us how we did." We worked it out with the General Motors Corporation--only one inspector for all regulations affecting buildings. Here was a great big panel of electrical stuff, clean over the man on the job's head, but the electric inspector was right there to back him up and say, "All right, here's the way to do it." He was his consultant. So the contractor deals with this one man. This method is fast, safe, and economical.

HOLDEN: I see.

FOX: Not the plan checker, not the plumbing inspector. Same way with anything on air-conditioning or plumbing. The plumbing inspector was right there to advise with him as a consultant. And it worked like a charm.

HOLDEN: So the one man's okay.

FOX: I was the only department in the nation at the time we began [that] never took a penny out of the general tax fund. I paid my way; I could make a profit. And I had the lowest permit fees, a lot lower than the city of Los Angeles or any other city.

HOLDEN: That's just for the building department, not for

the Public Works Department.

FOX: Just the building department. That department paid its way right up to the day I left. I wanted to build regional offices out of profits. But the county counsel said no, any profit has to go in the general fund, and that was that. So all I did was just drop the fees down. It worked, and the men were happy. It was the greatest honor that I've ever had. I think that the county engineering department went together so well and that building and safety worked so smooth because I had good men. They made me look good. It was built right, no bribery. By the way, I used to find out from my plumbing inspector that back East, he said, they had a box right by the plumbing inspector's office, and as you come in, you drop the coins in there or you don't get in to see him. Well, things like that happen in a corrupt department.

I went to all these heads. I went to Gil [E.] Morris, head of the building department of the city of L.A. I said, "I've got a chance, Gil, now to start from scratch. The unions are not in on it." The unions keep him so he must have a plumbing inspector, electrical inspector, and all the rest on every job. You can't get rid of them. I didn't want that in here. I said, "What would you do?" He said "Bill, this is the way I would do it. Don't get the unions into it. Don't have a bunch of the electric

inspectors. Have one man." I said, "All right, that's what I'm going to do." And that's the way we went. It was too late for him, he couldn't do it. He simplified a lot. He took on the uniform building code finally.

HOLDEN: In L.A. City.

FOX: Yes. But he couldn't eliminate all these inspectors on every job. It's terribly expensive, and it's terribly inefficient.

HOLDEN: Did you know of, or can comment on, whether the other building departments around this area were as honest as the county's?

FOX: Frankly, I never saw any indication of dishonesty in any cities around Los Angeles County, but they all were locked in on multi-inspectors, and that was their problem from the standpoint of efficiency. I heard a lot of stuff going on back in the East, and I heard rumors, but I never actually saw it. I just don't care to believe that it happened. I knew Gil Morris as one of the outstanding structural engineers in Los Angeles County. We became members of the Structural Engineers Association [of Southern California]--I'm still a member. I don't think anyone could ever reach Gil Morris with anything dishonest. So I prefer to say that in Los Angeles County I don't think dishonesty existed in the building inspection profession. There might be a lot of attempts on the

politicians--there's always that possibility. By that time it was a hot subject with the grand jury. It was too hot for the unscrupulous to tamper there.

So regarding the one-inspector-per-job principle, I had the best opportunity now to put it into effect in this new department. The public attitude was so I could do it. If I couldn't do it now, I would never do it. If it worked out to be a failure, the failure was going to be mine. I had every opportunity to make the very best, and I think we did. I think we developed the very best department organization for the job. I don't know any other building department in the nation that even paralleled or equaled what we set up in Los Angeles County. As to efficiency, as to service, as to minimum fees, and as to honesty, we were leaders and we knew it.

HOLDEN: Over time, after some of those first things were put into effect, then it took a long time to institute some changes. I guess even now we have some problem with shake roofs that really ought to be fireproof, and things like that.

FOX: Yes. Well, that has to do with a fire hazards. That's not strength, that has nothing to do with strength. That becomes a matter of fire protection, and that's always subject to change based on the degree of hazard. In other words, you may build, we'll say a home, a

single-family dwelling, and then get a zoning change to use it for a business. And that business may be dealing with paint and varnishes, where the code requires three-hour fire-resistant walls in such a building. That changes the entire picture of that structure, based on certain principles of construction involving fire protection or of fire-resistant requirements by the board of fire underwriters or by the experience of the fire department. Yes, I think it was good to change from shingle roofs, [which] become very vulnerable during brushfire season.

HOLDEN: So there are constant changes, depending on materials. And the same thing in planning, actually.

FOX: Changes, certainly. You always have to be open and ready for changes with the times and changing social requirements and social problems. All such [changes] influence types of construction materials. But the thing to remember [is that] the strength and earthquake-resistant requirements still prevail. So the motive for the change should be carefully considered. It must be for the public interest, convenience, and necessity. If proposed changes can satisfy those basics, all right, that opens the way to change. But it must satisfy those basics, not because someone paid some money just to promote a new product that doesn't come in as something to change the code. Public interest, convenience, and necessity are the basics. [But]

the requirement to meet the earthquake part of the code does not change.

HOLDEN: All right, let's go back to some of the--

FOX: By the way, those same basics are the test for a proposed zoning change.

HOLDEN: True.

FOX: If it can't meet that test, it shouldn't be considered. Don't even waste the time of the staff. It doesn't warrant much conversation.

HOLDEN: Good point. Okay, let's go back to some of the innovative things. I know that you've been associated with aviation in the county since the first general plan.

FOX: Oh, yes, ever since people even talked about aviation, I think.

HOLDEN: Then what phase of aviation did you get involved in? And what was your part in initiating the study?

FOX: Well, when I came back from World War II I could see that Los Angeles International Airport [LAX] was going to very soon reach its capacity, especially as to aircraft operations. And I looked at a map of the area. I'd flown the skies all over the nation, by that time. For instance, I saw that I could come right in from the last airways checkpoint, coming in from the east, at Kingman, Arizona. I could fly right straight in to Palmdale Airport, where it is clear 365 days of the year. On takeoff, I could take

off right over the ocean with nothing in my way. So I conceived the idea that we should take that little piece of concrete there at Palmdale airfield, which was called a CAA [Civil Aviation Administration] strip, and enlarge it to a major air terminal.

I met with the board of supervisors, and I said, "We're planners, and we're planning aviation as part of our transportation plan, as a vital part of transportation. We've been talking highways up until now. We've got to think of another type of transportation." We had been also talking about railroads, and I will go into that also. We have coordinated all the railroads into a master plan of grade separation signed by the chief engineers of all the railroads, which is in part of the overall transportation program.

HOLDEN: Yeah, that's an interesting point, yeah.

FOX: That was again by reason of my relationship with engineers that I was able to do that. In other words, I would say to the railroad company engineers, for instance, "You are wasting your money. You never know where these separations should be. If the public insists on it, you might put it out on some farmland just because the supervisor of that district wants it there. Let's have a plan and a program."

So I began to think in terms of a transportation plan

for aviation. And I had many other ideas. I saw that we hadn't gotten into control zones yet. The CAA hadn't either. I said, "Passenger aircraft are coming in at 250 mph, and we are now talking about 500 or 1,000 miles an hour for airlines." Well, they couldn't conceive of that. I could. They said, "Is it really going to?" I said, "It is going to come. I've been sitting on aircraft now at speeds of 500 and 600 miles an hour. I can tell you, they soon will be up to 1,000 mph. There's no reason why it can't be 1,000 or 2,000 miles an hour. Just imagine what it is to be approaching LAX at 500 miles an hour. The pilot checks the outer marker of Fontana--that is the nearest checkpoint before you come into the L.A. control zone. Assume he is cleared for runway landing at LAX. Why, before he gets done finishing his conversation, he's going to be past the tower and have to make a turn or he can't come in. And there's another flight right behind him. Well, you're going to have a sky full of people in airplanes, and that's going to result in a situation that you can't control under present conditions. About weather, what are you going to do about that? We've just got to have a master plan of all major air terminals for traffic control. And these other little airplanes or airports or whatever--we've got to have a plan for the control of airspace. This problem is growing now. I can plot a curve

to tell you how many airplanes we're going to have in 1960." I thought 1960 was a long time away.

And I plotted the curve and projected it to 1960. I used a method of projection which I had studied up on in a course on statistical analysis of curve projection and so forth, which is a weighted method of projecting a curve. I did the same for the automobile, but that was easy. In other words, I arrived at 2.24 people per car in Los Angeles in 1960, and I hit right on the nose all the way along. The [number of] automobile passengers per car hasn't changed for fifteen years. The aviation matter was a great deal tougher. I had to do a lot of interpolation to get to that. But I finally came to the point that whatever it was, I might be off the target 10 or 15 percent, but it was going to be much better than we were doing [by] bad guessing.

"We got to get the little private airplanes out of the major air terminals. There is no safe way to mix the two. You just can't do it. I found that out," I said, "at military aerodromes. Mixing dive-bombers, fighters, cargo airplanes, and training aircraft at military airports which I commanded during the war proved you can't mix so many aircraft with vastly different speeds safely." So they [said], "All right, Bill, so tell us what to do."

I had the hot-rivet right: I had to come up with a

solution. So I go to the drafting room, and started to work out a solution, a plan. "What's the curve? Say we're going to have so many more. Let's find more places for them." So we went around and found all the open fields and began to place-- "We will just try to hold those for aviation." Well, some of them we did and some we lost. That has changed a great deal. But it was a beginning. That's how it began. Then they gave me this Palmdale thing. And that was full of blood and thunder all the way.

After I worked that out, other aviation problems appeared. So I had to form an aviation committee. [corrects himself] Los Angeles [Area] Chamber [of Commerce] already had organized one. I had to just belong to it; I did not form it. The chamber formed it, and it was a good one that represented pilots, airlines, and industry. It was made up of all the airlines and all the manufacturers--Douglas [Aircraft Company], Hughes [Aircraft Company], Consolidated [Voltee Aircraft Corporation], North American [Aircraft], the whole ball of wax--and all the airlines, everyone, including the test pilots and so forth. I was just a little boy in that group. Of course, they had problems all their own that they were able to talk about.

When I used them, I would say, "All right, fellows, I've got this problem here. I'm a planner. We're going to

have to plan for aviation--that's my job. I've got to plan for you, because otherwise when you build your airplanes or train your pilots, your boys are going to have no place to go. And I'm the guy that's going to have to put it on a map so I'll have it there. Or it won't be there tomorrow--you are going to have to use what airfields now exist. But we've got to have plans for the future. That is my job. The first thing needed is a big air terminal." I said, "I know what you are going to be up against for jet aircraft operations. You are going to have to come right straight in to the runway. Those airplanes are going to have many passengers." (We visualized 250 each.) "How the hell are you gonna take care of 100 people at the end of an air trip? See, all those people out there and no toilets--that's what's going to happen. Let's begin with the basic facility, and these other things like toilets and so forth will take care of themselves. You've got to start with the airplanes and then a place to land them, and then go from there."

I thought I should set the example. So I got the board to authorize the condemnation of all the land around Palmdale local field [in order] to create a major air terminal as an auxiliary for LAX. And the zoning of everything around the airfield for agriculture and everything above 130 feet for airspace on the approaches

for two miles out. And we started condemning the land. And then when that was going on fine-- Everybody thought it was fine. The chamber of commerce committee lauded me and patted me on the back. And Lockheed Aircraft Company-- I used to meet and go to lunch with Bob [Robert E.] Gross, who was general manager of Lockheed. They would say, "Bill, you'll be able to save this factory. That's where we're going to go! North American Aircraft company said, "That's where we're going to have to go." Hughes had said the same thing, "That's where we're going to have to go." And Aerodynamics Company was at that time in Pomona. I had everyone in back of me. And up in Antelope Valley they were wild. It came out in a newspaper, "Man of the Year, Bill Fox." Big picture! "Going to make Antelope Valley the big place, the aviation industrial center."

Then all of a sudden-- [slaps table] Boom! The chamber of commerce board of directors passes a motion directed to the board of supervisors recommending the board stop all condemnation proceedings and abandon building the administration building and turn the grant back to the federal government. In sum, abandon that whole project, because the airlines were not going to go up there and neither were the aircraft factories. And right on top of that, sure enough, we got a call from Bob Gross, [who] asked Roger Jessup--Roger, it just so happened, was

chairman [of the board of supervisors] then--to come out to the plant. By god, I tell you, I was right behind the eight ball on this one. Bob Gross said, "Roger and Bill, they changed the picture on us back in Washington. We are not going to get the contracts we are planning on. Neither is North American. They pulled in their horns back in Washington. We're back in peacetime now. What we are going to do is to try to now just save what we've got."

Roger and I walked out of there, and I tell you, I could feel the blow. I knew that was my job right there because of what I had done. The board had followed my advice and recommendations a hundred percent. So on the way I said, "Well, Roger, I'm sorry that I misled the board on this. I'm so sorry I got your board in such a mess like this. The chamber's going to raise hell."

He just asked me one question, and I'll never forget it. He said, "Bill, let me ask you this question: from an aviation standpoint, has the picture changed?"

"No," I said, "I don't think it has. It is a temporary situation that Bob Gross finds himself in. No, the picture hasn't changed. That momentum is there, Roger. The need is there. We are correct from the standpoint of the needs for future aviation."

"Well," he said, "so we're going to go through with it then."

I said, "All right. I will still stand by my recommendations based on my personal experience as a pilot and as a manager of our biggest military airports."

So we go back to the [Los Angeles County] Hall of Records, and he gets the board in executive session. He has a meeting with them to tell them what his opinion is. He said, "Here's what Bill thinks. That's the guy we've been following here on aviation matters, and I'm not ready to leave him."

Comes the official public meeting, the chamber of commerce is there in force. They have as their spokesman one of my closest friends, one of my finest friends [whom] I admire. He was president/general manager of Western Airlines and a former pilot, and a good one. Drinkwater, Terry Drinkwater, a great speaker, and that's why he was representing the chamber of commerce board of directors. And apparently, he had had some contact with the other airlines also, because he said, "The board of directors have passed that motion and have delegated me to represent the airlines here." He said, "Airlines are not going to go up to Palmdale, gentlemen." He couldn't speak for Bob Gross--we knew about that. And he made quite a speech and so forth, and he was impressive before the board. And this was right in the middle of winter, by the way. We were already operating Palmdale. I already had a manager up

there, although the field was not finished. We were operating on what we had up there--only one runway and no administration building, no facilities for the public.

HOLDEN: This is 1950, maybe?

FOX: About 1950. I'll give you the date exactly. I've got the letter right in here, the one the chamber sent to the supervisors, and my reply, which went a little later. So I'll tell you, I sat there depressed. The airlines had been friends of mine, and I had been on this chamber committee." So I said, "Jesus Christ, what has happened? I've been betrayed." Well, of course I could see what had happened. They were influenced by Los Angeles politics. They didn't want to hear about a successful Palmdale air terminal. If that [the resolution to take over Palmdale Airport] had gone through, Los Angeles International would never have improved facilities for the airlines. A lot of political deals were being made. A lot of the airlines there wouldn't have built the facilities they had to have out there. The city built a lot of those facilities, as you know. Well, right in the middle of this awful hearing I thought, "By god, I just wonder what is going to happen to me. It's going to be the end of a long career." I could feel the guillotine right there, just like I'd smell the tar and the feathers--when suddenly I got called from the boardroom.

The manager of Palmdale Airport [Frank M. Richards], who had been one of my squadron commanders out in the Pacific in World War II, called me on the phone and said, "Bill, all hell has broken loose up here in Palmdale."

"Well," I said, "there is hell broken loose down here. What has happened up there? I don't need any more problems."

He said, "Bill, the weather has been stinko at LAX. All the airlines have canceled out landing there, and their airplanes are all on this field. And their passengers are swarming all over for toilets and ham sandwiches and coffee and condemning the county for not having these facilities here. It is cold as hell up here and windy." He says, "I can see Western Airlines planes as far as I can see."

I said, "What did you say? Say that again." Now, here is Terry Drinkwater representing Western Airlines saying it wasn't going to go up to Palmdale ever. I said, "Did you say Western Airlines?"

He said, "They couldn't get into Los Angeles--they're grounded. And this is the only place they could land. They're all still coming in!"

I said, "Can you get a photograph?"

"Yeah, sure."

I said, "Get photographs. Get a motorcycle messenger and get photographs down here right away."

In the meantime, I was trying to stall the hearing and keep it going as long as possible. There were so many people wanting to talk, that wasn't so hard to do. My demise was to come a little later. And finally in came this motorcycle messenger. He came in the back way, and I said, "Come on up here." And I got those eight-by-ten pictures, and as far as I could see, here was TWA, Western Airlines, DC-3s, and Ford trimotors. So I got them and I waited for my time.

Finally the hearing ran out of speakers, and the chairman of the board of supervisors, my bosses, said, "Well, Bill, what have you got to say?" It was like saying, "It's too bad to see you go to the slaughter." So I said, "Well, ladies and gentlemen, I'd like to address my remarks to Mr. Terry Drinkwater. He is a longtime friend of mine, he's a great aviator, and he's head of one of the finest airlines. I remember when that fine airline got started. But what I don't understand is that you are speaking for the Los Angeles chamber board of directors and the airlines. You premised your remarks pretty strongly [with the assertion] that none of the airlines were going to go up to Palmdale, and you represent one of the biggest." And I said, "Terry, I promise you I didn't do this to hurt you. I didn't take all these airline planes up there. But are these your airplanes in these

pictures?" He looked at them, and he turned white and speechless. I said, "Terry, they're all at Palmdale airfield right now. They're not at L.A. International. That's Palmdale airfield. And see all those people there? They are your passengers. Look at those people there, how angry they are. They are cold. They can't find toilets, they can't find sandwiches or coffee, they are not in a place that's warm. We haven't built that administration building."

I said, "Gentlemen, I don't think I have anything further to say except this: The board of directors of the chamber of commerce have sent that nasty letter to this board. And their aviation committee, of which I am a member and of which Terry Drinkwater is also a member, unanimously supported me in recommending to this board to acquire the land to put that airfield in operation as an auxiliary to LAX in case of need. Gentlemen, it is apparent the need is now. Who, might I ask, is the board of directors of the chamber listening to? Where do they get their advice if they don't get it from their aviation committee? What's this committee for? Are we all wasting our time? I don't think the chamber of commerce directors are speaking for their aviation committee. Gentlemen, I'm kind of tired. I hope you will excuse me. I think I'm needed at Palmdale Airport." I walked out.

Now, I put that in writing. I'll give you a copy. I wrote the letter to the board of supervisors. And I wrote my reply as a result of it, to answer to the board of the chamber of commerce. And I'll give up a copy of the letter. It is a historical document. [tape recorder off] As a result of exposing these timely photographs, the board of supervisors not only withheld any action, but right after that, when I sent this letter to the board of directors of the chamber and to the then secretary of the chamber, with the board [of supervisors']--my boss's--approval, the board of directors not only withdrew their letter but expunged their motion from their records. The secretary sent what I thought was a letter of apology, which I also have in my records, which I'll let you have.

And to make it more interesting, not long [after] that, why, the climate changed in Washington and Lockheed did get their contracts. They went up to Palmdale, and Hughes went up in there, and General Dynamics [Corporation] followed. And that's where they're building the big bomber right now, and that's where they've built the F-14s and the big fighters that they are testing over at Edwards Air Force [Base] Test Center. Then also, to climax the matter, we proceeded to condemn the necessary land for a major air terminal. Then because these plants were building so many highly secret air force aircraft up there, the air force

wanted to buy the airport from the county. They came to the county, and I added up what money the county had spent on the project for land. What we spent was one million dollars, so we got a check for a million dollars from the air force for Palmdale Airport. I have a photograph of that presentation.

HOLDEN: And then the county went on to acquire a small airfield also in Antelope Valley and gave it your name [General William J. Fox Airfield], right?

FOX: I knew nothing about that at that time. I didn't know anything about that. It came later after I retired and left the country. I heard about that when I was in Mexico. I came up from Mexico to the dedication. I knew nothing about the acquiring or naming of that airfield. I wish I did, frankly. [I] had nothing to do with it.

HOLDEN: All right, let's go back just a moment and change the subject a bit. I think you've pretty well covered it, but I think one of your more interesting points is that you have supported at least a type of regional planning for this region all along from the beginning, starting with roads, with airports, and so on. Is there anything more you'd like to add along that score? I know that the state passed a regional and district planning law, and I think the only place that asked to be declared a regional planning agency was the county of Los Angeles. And I think

that was your doing, right?

FOX: No, I don't think that's quite correct. The federal government under [Franklin Delano] Roosevelt got into the planning idea, and they formed a National [Resources] Planning Board, headed by Frederic A. Delano, the son of the famous writer and also a relative of Delano Roosevelt--as a matter of fact, named after the president. Naturally we went back to learn what they were doing, because they adopted a policy that all states, to obtain any federal money or grants for highways, must have a planning board. So all states then started to work around and form state planning commissions, and California was one of the first. And I was appointed to that state planning commission. Again, my friend John Austin was on that also. He was the chairman. We were the two representatives from Los Angeles County. But, actually, that planning board never really got under way. We had meetings and so forth. I could see right off the bat they were going to have the same opposition on a state level that we had right in Los Angeles County, opposition from the state highway department like we were getting right here in L.A. County from our county road department.

FOX: The board was being ridiculed and dominated by the heads of the state highway department, two dominant members, one of them the chief engineer and the other the assistant chief engineer. And they kind of stimulated other state departments that might be affected by planning to also indicate that this new agency was unnecessary. They also faced the penalty that if they didn't do something about it, they would sacrifice a lot of federal funds. So it limped along; it really never got started. Actually, I don't know how many meetings the planning board had. I think that I attended probably three or four, and it just kind of dwindled down. It never really got off the ground as a working planning commission or planning board. By that time, Roosevelt had died, and I think the federal planning department folded up also. State planning boards folded up with it.

HOLDEN: However, the thing that did remain was that the planning commission of L.A. County became or was called a **regional** planning commission.

FOX: It was called that before at the beginning. It never was anything else. Right from the beginning.

HOLDEN: It was the district that was declared under that board, wasn't it?

FOX: The regional planning commission, that was just beginning. And it was supposed to embrace all of Los Angeles County and its incorporated cities and unincorporated towns. Now, as a matter of fact, it should have also had development in adjoining counties. Influence was slopping over in a measure into Orange County and San Bernardino County. They would have me over there to lecture to civic organizations and their public bodies and supervisors and so forth, [so that they could] learn from our mistakes. They could have learned a lot, but they didn't. They could have done a better plan than they have done. They had a wonderful opportunity. Development went and caught fire, and a lot of what developed over there, I understand, was pretty bad. I was away at the time, so I can't speak firsthand, but I could see that a lot of it developed without the guidance of a well thought-out plan. Especially the great Irvine Ranch did pretty good, because it was planned by an architect [William Pereira] that I knew, who was a planner at heart, and they did a pretty good job there. But a lot of the development in Orange County developed without the guidance of an overall plan. I think, as a result, they are just a little bit lopsided on their development. That's my general impression. I haven't seen much of it because I've been away. I'm still just back here, just new, so I can't

say. I shouldn't mention that maybe.

HOLDEN: Now, one other item here: During the thirties, as you pointed out, the federal government began to make a number of grants and so on. Apparently the regional planning commission took advantage of that, particularly in research. Did you--? Well, that's what Bryant Hall was doing. I guess you did--

FOX: Yes, but I don't recall that we got any money from the federal government for Bryant's work then, not during my time.

HOLDEN: Not during the big survey.

FOX: No sir, not the federal government. The only thing we got from the federal government was the manpower to make the traffic survey that Charlie [Charles D. Clark] made. The fact that all my inspectors had been on what is known as WPA [Works Progress Administration] doing manual work, raking leaves or doing anything to make a living-- They were just delighted to come to work for me, to use their talents for something other than raking leaves or working on some construction job or driving a truck. So in a way, we got the benefit of all that, but I don't recall any direct grants we got from the federal government.

HOLDEN: Okay, good. I'm glad that's clarified.

FOX: If there were any that they got since I was there-- I know there was nothing in my time, absolutely nothing.

Bryant Hall got no money from the federal government. We were paid by Los Angeles County 100 percent. They may have got something later that I don't know about, so I can't speak about that. But I know doing my time, or before my time, we were paid by L.A. County, with no help from the federal government.

HOLDEN: During that time, there were various other things that came up, for example an interest in housing and so on. Did the planning commission at that time, or did the board, want you to become involved in any of that kind of--?

FOX: No, we did not get into housing. We talked about it. There were one or two national housing experts who wanted us to, but we just hadn't got into it. I don't think we were ready for it, either.

HOLDEN: The county board members were not quite as attuned to it, apparently, as the city and other places.

FOX: Well, we didn't get into that at all, Ed. Not during my time.

HOLDEN: During your time, though, you did do one other thing, which was a great shoreline plan, at least.

FOX: Oh yes. Oh, yes.

HOLDEN: And some other recreation.

FOX: Oh, yes. There again, Pomeroy started that idea, and that was augmented by a member of the state recreation department [California Parks and Recreation Department],

the famous actor Leo Carrillo. And he was devoted to and had tremendous influence in keeping the shoreline for the recreation of the people. His influence was tremendous. It was stronger than law, because he was a very devoted Californian. That's where he was born. He was a great speaker. In fact, he made a famous speech when I retired. He and I became very good friends. He was a former surveyor with the Southern Pacific Railroad. He used to tell some funny stories about that. Leo Carrillo, I think, during that era, when you had to do something to keep what we would call the "escrow Indians"--a name coined by us to describe ruthless subdividers and real estate developers--from subdividing everything and building everything along the shoreline and leaving nothing for the public, Leo saved the beaches. He was a great guy. He did a lot of good. Yes, we had a plan. There is a shoreline plan. One of these reports here will show the shoreline plan.

HOLDEN: What was some of the origin of that? Did Carrillo originate it?

FOX: No, I think the origin was Hugh Pomeroy.

HOLDEN: Hugh wanted to do it.

FOX: Leo came in later. He was naturally a Californian anyhow, so with the same love he had in preserving of the church, the little chapel in the [Los Angeles] Civic

Center-- And also worked to preserve Olvera Street, to keep that Mexican cultural center. He and a lady whose name I don't recall were able to vacate Olvera Street and make it a promenade for maintaining the Mexican atmosphere and culture there. Later it became also a part of Chinatown. Leo Carrillo, I think, and this lady whose name I don't recall had a tremendous influence in preserving the old Plaza Church and that area down there around Olvera Street. That was the old city. We had nothing to do with that directly.

HOLDEN: Did the planning commission have something to do with thinking about some plan of regional parks?

FOX: Yes. That's what was Pomeroy's Waterloo, really.

HOLDEN: Waterloo?

FOX: Yes, that's what caused him to resign.

HOLDEN: Tell me about it.

FOX: Yes, well, first of all, this freeway plan that exists today all began in our office. The state picked it up later, but the park plan, or parkway plan, didn't all begin there. (It was not called a freeway plan; it was called a parkway plan.) And Hugh Pomeroy created it with its series of parks. In other words, in the process of condemning land to make a nonaccess road, you're going to have a lot of fragments of land left which you have to pay severance damage for anyhow. And the severance damage is

terrific. Sometimes it costs more than the right-of-way itself. Hugh only wanted to take those and-- Rather than paying for them and not use the fragments, let's take them and make parks out of them. So he had a parkway planned. Along all of these so-called freeways, there were parks and playgrounds and so forth.

It was a wonderful concept, but it was tremendous-- That was one of my jobs, keeping Hugh's feet on the ground. If we're going to propose something, a bond issue, one must also have a financial plan. You must remember, anytime you have a bond issue involving a municipality or a government agency, there's a limit [to when] general obligation bonds are salable. And the rule is pretty much simple: When you get above 7 percent of the assessed valuation, that's your bond saturation point. The bonds are no longer salable. So if you have a plan where the financing goes beyond that limit, god, just keep that under the table, introduce it in stages. In other words, have phase one, phase two, and phase three. That's what I wanted Hugh Pomeroy to do. His plan was beautiful, and it was sound and needed, and it coordinated with population growth. We knew what the population was going to be, and we knew that if it had to have so much park for little old Pomona and Alhambra, we had to have so much park for fifty-four incorporated cities and sixty unincorporated towns.

So the Pomeroy plan had a good mathematical growth basis. But it had to be synchronized with the growth of the assessed value, the bonding capacity, and the taxing capacity of the base. And that was my job. So I said, "Well, all right, Hugh, listen. Let's keep this thing under the table."

He was such a strong person. He had all the way through his work the support of all those newspapers. He had Harry [C.] Chandler of the **L.A. Times**, who was alive. He had the support of William Randolph Hearst, who was also alive. The editor of the [**Los Angeles**] **Examiner** paper in Los Angeles, he was the spokesman for Harry Chandler and for Hearst--Hearst told him what to do. So Hugh worked right with them, and he had their backing. He also had the backing of the big powerful cement trusts, which were going to build all these freeways, and that was a terrific influence in this city. The Griffith Company was doing most of the construction, and Bechtel [Corporation] was in on the thing also, as were about three others. There were the big people. He had their backing. But finally where he had made his big mistake-- Now, I don't want this on the record. Hugh Pomeroy gave them the whole works, and it frightened his backers and they bolted.

HOLDEN: Okay.

FOX: You asked me a question. Was there a park plan? I

have told you there was and how and by whom it was created.
HOLDEN: And you were talking about a rather large plan of parkways that Hugh Pomeroy was particularly interested in.
FOX: Indeed I did. It was the culmination of the entire concept of planning of this entire region. Because having set the framework for highways, we now had to deal with people, recreation, the social problems, their health problems. And that meant parks and places for rest, places for relaxation, places to depart from stress of the days. And Hugh Pomeroy, in his great imagination, created the idea, and we drafted the plan in our drafting room under his direction and our drafting skills. It was a comprehensive parkway and park plan for the region. And that part of that parkway plan is really what is now the freeway plan, except it is devoid of the parks and parkways and recreation areas which were all part of the Pomeroy plan. It was a comprehensive plan, probably the best that will ever be made for this region. I can say that probably it was just ahead of its time. And the public authorities and the business world just weren't ready for it. The plan just didn't get the support of his backers. It was buried, and I think that most of the plan was chewed up. And what grew out of it was the present freeway plan--a nice plan, a good plan for traffic alone. But it's devoid of the recreation and beauty that would have produced real

character for this county, real character that would have made it known all over the world as a California type of development that other countries wouldn't have imitated because of climate. We had the best opportunity. I think that time has past.

HOLDEN: You are on the record. Talk about phasing.

FOX: Oh, sure. The matter of carrying out any master plan is a phase proposition, and that takes great wisdom. It takes great understanding of assessed values, of the taxing limits, of the bonding capacity of a particular area. Because many of these improvements have to be paid for by special assessment, bonding districts, like under the Mattoon Act or the Vroman Act or the Street Improvement Act of 1911. That is when you assess the cost of curbs, sidewalks, street paving, local sewers and storm drains to abutting property.

For a project that involves the condemnation of property beyond the immediate highway or street itself for freeways or parks, the so-called Mattoon Act or law was passed by the legislature. But the Mattoon Act was abused and misused, and it later was repealed by the legislature by public demand. I don't like to say such abuses were by real estate promoters, but a lot of people used that act for purposes for which it was never intended. It got so the assessments were going to impose a great burden on the

taxpayers. Promoters were selling property owners on the idea of getting highways in their district for development of business property. The property owner would then sell the business property created, and the burden of paying for it would be left to whoever bought it, with all the assessments for years to come. It became beyond the paying ability of the taxpayer to pay for such assessments at the rate they were being imposed. So wisdom dictated that Mr. Everett [Mattoon] himself, for whom the act was named, went back to the legislature and encouraged it to repeal the act. So did the bond people, because they could not sell the bonds. So did the board of supervisors request repeal of the Mattoon Act. It was really a good act. Its intention was magnificent in the rapid development of California. But it had to be administered under great control, probably by a special board or special commission to handle that act alone. But the damage was done, and the authorities had to repeal it. As a matter of fact, the burden on property owners was so great that to pay off a lot of those outstanding bonds and those excessive assessments, the board of supervisors actually had to pay out of a general tax fund to keep those people from losing their properties--foreclosures and so forth. It was clearly a mess.

HOLDEN: That was the Mattoon Act. And the basic principle

that we are talking about is the need to have proper phasing. Sometimes when we get too far out ahead--

FOX: Well, another subject: If you look in the so-called master plan of grade separations, that master plan contemplated a plan that was related to all the railroad systems serving this county. They are the Union Pacifics [Railroad Company], the Santa Fes [Railway], Southern Pacific [Transportation Company] railroads. Because at the time of which I am speaking, it was a hit-and-miss proposition on the building grade separations, based on special interests' demand rather than the need for the general public good, which means satisfying the general traffic solution of the region or the county. So I set about to work out a grade separation plan and program for all of our highway system, and took plan and program to the chief engineers of all the railroads. And the chief engineer in many cases, and in some cases their general manager, approved that plan and program. It now becomes a matter of phasing in carrying it out. So if they are going to build one grade separation, it's a matter of then deciding the matter of the division of cost between the railroad and the highway department of the public body involved.

[First] there's the plan. [Then] the plan's approved, approved by the public, approved by the board of

supervisors, approved by the state legislature, approved by the city council, approved by all the railroads. That is planning at work. Now we have a plan and a program. Now, the carrying out involves money. Let's suppose we are going to build a grade separation. All right, first it's going to have to be part of that plan. We're not going to build it out in some alley somewhere to improve somebody's property or some subdivision. It's going to be according to that approved plan, on that program. Now, who is the best one to deal with deciding the amount of vehicular traffic involved and the amount of railroad traffic and the benefit to that section? Now having an approved plan, we look to the consulting advice of all the people having to do with grade separations, the road engineers, the railroad engineers, and planning engineers. Finally, they arrive not only at the one to build--the approved plan indicates that--but the division of cost. How much the railroad pays, how much the public pays. How much comes out of the gasoline tax, how much comes out of the city's road fund. That was the idea behind carrying it out by a so-called phase method--phase one, phase two. Until you grow into the plan via coordination with the need and demand, with traffic considerations and public necessity, the timing is not good. That's the same way with the airports, same way with highways, same way with a building, same way with

courts or anything else, or police departments or a traffic signal. It's a matter of having a plan and coordinating that plan in accordance with need and the ability to pay. That's an engineering solution. It is the type of approach that city and regional planners must learn and master to be effective.

Planning as a skillful profession comes into the realm of [people who are] planners by habit or life-style, and I've tried to define who they are. They're not born. Some of them are developed by training in doing things orderly; some of them acquire it by hard work and adaptation. To be a leader in city planning technique means a thorough study and much experience in what makes a city function as an organization for the public welfare. It is really a life study that is ever changing.

HOLDEN: Around the early fifties, I believe, you resigned from the county. What year was that?

FOX: That was October 1, 1955.

HOLDEN: And you had other fields to conquer, or what was your reason for retiring?

FOX: Well, the reason wasn't to conquer other fields, that's for sure. I had conquered a few already. My reason to resign? Well, I thought I had done all I could do for Los Angeles County. I thought I had done all that I needed to do. And frankly I was tired. I thought I needed a

rest. After my New Jersey and Hawaii and South Pasadena experience, two world wars, and about thirty years with L.A. County, I wanted to live a bit for Bill Fox. I had been under great strain for too long. I don't think I could have continued under that strain much longer. I think it would have been a stroke or a heart attack waiting for me. I had given all I had to public service--I could feel the violin strings were right up to all they could stand. And I just told my board I wanted to retire. I gave them a date. It wasn't 1955. It was 1954 or 1953. But anyhow, 1953 went by and 1954 was going, and I said, "Gentlemen, I'm sorry, I have just put in my retirement to the retirement board." Parenthetically, there is not much they could do about that. That action takes it out of their hands.

I had decided [for] two reasons. One is I had done my job, and the other is this: "I have a boy [Stuart G. Fox] eleven years old who hasn't seen much of his dad because of war and the demands of my public service jobs, and he'll never be eleven again. And he and I are going fishing. I'm going to be a father to a boy that hasn't seen a father for very much of his eleven years. Those are the two reasons." So I just retired on 5 October, 1955, at age 57. I had no idea of any new ventures to conquer, except my job was to take care of that boy and see that he had a

father. That was my new venture. And we went fishing together up on Quesnel Lake in the caribou country of Canada. All of these subsequent events grew out of that venture.

TAPE NUMBER: IV, SIDE ONE

JULY 17, 1985

HOLDEN: All right, we're ready for some specific items. General, let's discuss for a moment the concept of zoning by design. [tape recorder off]

FOX: *[If one wishes to understand zoning by design and use its principles in the planning process, the Bixby Knolls project that I am going to describe in some detail is a classic and worthy of much study.] The term "zoning by design," as far as I know--and I'm quite sure--was really invented right in our office. It was invented as the result of a process which began with our great landscape architect, Werner Ruchti, a great genius and a great designer. The most outstanding example of zoning by design was known as the Bixby Knolls property down in North Long Beach, bounded on the-- [tape recorder off] Again referring to zoning by design, both the term and the technique were born in the office of the [Los Angeles County] Regional Planning Commission [RPC] about 1929 or 1930. The concept and the design came out of the brains and out of the head of the wonderful designer Werner Ruchti of the regional planning commission staff, whose training

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* General Fox added the following bracketed section during his review of the transcript.

was as a landscape architect. He had been trained under both Harland Bartholomew, and more particularly by the Frederick Law Olmsted firm of Boston, Massachusetts [Olmsted Brothers].

The first application, actually, on the ground was property owned by the Bixby estate in North Long Beach, bounded on the north by an extension of Los Angeles Street, which paralleled the Union Pacific railroad, and about two hundred feet southerly thereof. And on the south by an unnamed street [Bixby Road], the first half-mile street south of Carson Street. It was bounded on the east by Cherry Avenue and on the west by Atlantic [Avenue]. It was an acreage that hadn't been contaminated by being butchered up by what I call the "escrow Indians," the real estate developers. And it was accomplished with the cooperation with the then owner, one of the heirs of the Bixby family [Jotham Bixby]. It was designed in our office and adopted by RPC as an ideal method of zoning property for its best use.

During our time it began to be developed piece by piece by the better developers. But according to the entire comprehensive plan, which is shown on the Section 4, Long Beach-Redondo area report of the Regional Plan of Highways of the regional planning commission in 1931, the design followed the basic concept of how zoning is

accomplished by sudivision patterns. Page 114 shows the framework. First is the framework of the main thoroughfares that pass through the property. In this case, Cherry Avenue, a major highway, designed one hundred feet wide. Then Atlantic Boulevard was also a major highway. That was a mile to the west of Cherry. Then bisecting in between the two was an eighty-foot boulevard, Orange Avenue. Carson Street, which bisected the property on its lower third, was a major highway, as was the San Antonio [Drive] diagonal, which bisected the property about the upper third. And Los Angeles Street, another major highway, which paralleled the Union Pacific railroad, was in the upper third of the property, as was the Union Pacific railroad. That constituted the framework. That represented the vehicular thoroughfares and railroad traffic that were affected by this large piece of land. So we begin with the framework as shown on page 114.

Then comes the interior design, the actual design of the properties within that framework. Werner was able to prove that no matter how rectangular a piece of land may be, it lends itself by proper skill to an internal curvilinear layout, which will then begin to determine the best use, or zoning by design. The design of the local street system, within that basic framework which I have described, begins to lock in the best use of the property

by the actual charming lot layouts. And when you lock in the use of property, you automatically determine its best use. If its best use is determined by the pattern layout, that is zoning by design. And here, without even zoning laws or ordinances, by design we were able to [establish] so powerfully and so dramatically the use of the property. Through a curvilinear design, as I use that term, we actually make it almost uneconomical and impractical to use it for any other purpose.

In laying out the internal sections of this framework, if one studies that diagram on page 114, you will see one, two, three, four, five, six, seven, eight parcels of land bounded by the diagram of thoroughfares I have described--in other words, the framework. Within that framework are those one, two, three, four, five, six, seven, eight parcels of land that constitute the heart of Bixby Knolls. On the next page is where the skill of the designer, in this case Werner Ruchti, takes each one of those parcels of land separately and lays out an internal street system, designed so that traffic can't get through. It is served by the main highways, but it is just difficult if not almost impossible for traffic to actually penetrate into these internal quadrangles. That is part of the secret. And there you see the essence of a street system that makes a very charming, a very interesting

residential community, [using] the land within those quadrangles for the laying of each parcel of land, with again another more intimate framework, a framework of local streets following the curvilinear pattern. One look along that diagram there will begin to [show] the second step of using the basic framework, which were the main thoroughfares. [This] is where planning should always begin, and then the designing of everything internally for its highest and best use by skillful use of the curvilinear pattern of local streets.

Now, the highest and best use here, of course, is residential, but we then have to consider other uses than residential that a community must have. That means parks and recreation, school sites, business locations convenient to-- So that it would be a completely contained internal design with all the facilities that even a large city would need. In other words, this parcel of land, which constituted about a thousand acres, had everything that a community would need. Residential property, apartment house property--just enough [for] the natural demand, the amount of apartment houses that would be normal for that number of people within that area. We figured along the basis of twenty people per acre, if I recall right, to allow that [to be] the density of population in the residential area-- Then on the next page is the laying out

of the strategic location of the business areas to serve this property. It will be noted that the focal point is the intersection of the San Antonio [Drive] diagonal and Orange Street. Orange Street bisects the thousand acres in a north-south direction. The San Antonio diagonal in a measure bisects it in an east and west direction. And very strategically and in very interesting layout for supermarkets and for parking are the business areas designed around the intersection of those two main highways, accessible to all the properties within the four greatest quadrangles. Then at the intersection of Cherry Avenue and San Antonio diagonal was now another small business district, as there was between Atlantic and the San Antonio diagonal. Then naturally, along the railroad was the natural place for industrial property. That is shown in blue. And the industrial property is laid out according to population growth, which followed the study that we [did] to determine the amount of industrial property that a hundred families could support, or a thousand families. And that is shown on a curve in the same report on page-- [shuffling through papers]

One of the series of studies that the regional planning [commission] made after considerable research was to arrive at a zoning formula so that it wasn't just by wishful thinking or guesswork or propaganda or promotion by

realtors. We wanted to know how much property could business lots support. How many families did it need in order to have a relationship between purchasing power and business? After many, many studies of practically all of the cities in Los Angeles County, we arrived at a formula that it took one hundred people to support a fifty-foot lot of zoned business. We then went further to find out how much property would a fifty-foot lot support for duplexes and apartments. Then we went further to find out how many people it would take to support one acre of industrial property. That was probably the most extensive study of all. It was all diagrammed; it was plotted out. The lands were shown in black on a base map of the industrial land survey of Los Angeles County, M-1, M-2, and M-3 types of property, so we'd have a basis to work out a balanced plan of zoning for residence, apartment house, business, and so forth. That was exemplified in the study I'm talking about, using that formula. So that we ended up there with a scientifically planned area of a thousand acres, which was a pretty good-sized community, about the size of some towns at that time out in the San Gabriel Valley and the south part of the county. Naturally as time went on, there would be the central industrial area, like the Vernon industrial district, which went into heavy industry. That became a special study. We even went so far as to go to

the major businesses like Sears and Roebuck to find the name and address of every employee to find out where they lived. How many were in the first mile, the second mile, the third mile, so we could know how far people would normally travel to work at a major business or major industry. Bryant Hall was responsible for this research, along with [A. E.] Billy Williamson of the zoning section. Those two men were responsible for setting up the formulas which we later used.

So based on the population growth curve as to how many people over the years would be related to each automobile, and the same thing for airplanes, we began to have some mathematical relationship between people and the various uses of property. It was but a beginning. Those curves are plotted in this report. The aviation situation was based on a comprehensive study of our Master Plan of Airports. The Master Plan of Airports is shown on page 149. The diagram showing the number of people per airplane extended on to the year 1960, remembering that this was planned in 1929 and 1930. We thought that was as far a projection as we could possibly think about. That curve is shown on page 154 on the relationship of airplanes to people. The same kind of a curve was worked out for automobiles, and that is shown in this same report on [shuffling through papers] pages 18 and 19.

HOLDEN: I think that a lot of this research that was done for this and then later ones was sort of summarized in the Master Plan of Land Use published in 1941, was it not?

FOX: It probably was. Actually, I'm going to stay with the basics. That becomes, you might say, advanced planning. We were still into the basics. We were just starting the planning process.

HOLDEN: Yeah, this is really the roots of that whole subsequent action.

FOX: Our whole planning procedure grew out of these studies; we had to learn as we progressed. Working at planning every day and seeing the fantastic development going on in this area, our procedures improved. We had ample opportunities to test out our various formulae.

I want to continue on this zoning by design thing, because these pages only just covered the business areas and how we arrived at those formulae. On the next page was the same design showing in color the apartment house zone, based on these formulae that I mentioned that were arrived at out of the basic research. Then the single-family-dwelling zone shown on the following page, all in color, showing how in those internal designs, residential zones related to apartment house and duplex zones and then all related to business zones fronting on the highways. Then the actual compilation of the entire land-use plan. Next

comes the recreation areas. We took the areas which would be left, that wouldn't be used for other uses. We turned them into recreation areas and parks. Then also we had to have areas for schools. This map also, number six, shows the school lands that had to be reserved for that purpose. We got the school board to reserve this property and to buy some of it up, or have the owner reserve that for school purposes. Number seven also was a cultural area. Then we end up having a wonderful cultural area that would tend to serve that whole area and fit in very beautifully with the design.

So we're now beginning to put all these formulae, relationships, and planning principles together. And that's shown on the community plan on page 122. There is the entire picture, with the residential areas, the recreation, the school sites, the highways, the business areas, and industrial areas. The whole ball of wax is here shown in a beautiful illustration of zoning and use by design, involving every possible use that a community would need in a balanced way, with each use in the right location. And it developed that way. That is how it exists today. I followed this development until I left the county, and as far as I know, it is still being developed that way. That is zoning by design. That is almost a document and a course all by itself on planning in action

on those pages. And I would say that planners could well use those four or five pages as the basis for planning and then test out the validity of their plans. This study and these examples are the best proof of good planning. They are there today. They exist.

HOLDEN: Right.

FOX: And by the way, zoning by design went further. On page 124 is shown the four thousand acres of the famous Montana Ranch, where Lakewood [City] is today. This was a laying out of Lakewood Village. There is shown the entire Lakewood plan. I regret to say that the owner did not carry out all of its design precepts. But there was a plan. The owner told me later he was sorry he didn't follow it out to the letter. A good bit of it was followed out as planned, but a lot of it was not followed. There was too much checkerboard design that was finally followed by the developer.

Then comes the civic center plan for the city of Los Angeles and how it was put together. And by the way, I want to say that this whole document is just filled with planning jewels. There is a master plan of airports, shown on page 170. Also, this highway plan was not just on paper. Many of these were surveyed out, and some of the bridges we had actually designed in detail can be seen throughout the latter part of the report.

I specifically want to refer to-- Page 175 shows the actual grade crossing-over of the Southern Pacific railroad, where one of our highways-- In order to make sure that it was practical, we actually had the county surveyor make the survey and the blueprints, make the designs. Another design is on the next page, 176, a complicated grade-separation plan, another on 177. Then all these grade-separation plans were approved by the railroad, and their costs were allotted to each party to the action by the California Railroad Commission. The California State Railroad Commission had jurisdiction to determine the amount that must be paid by the railroad involved and the highway department. We were dealing with dollars and the practical application of each plan. We arrived on pages 178 and 179 at the actual division cost of these grade separations. The master plan itself, approved by all the railroad chief engineers, is on page 175. So this became the master plan. All agreed that if they were going to build only one or two or part of one, here was the plan indicating the best place to put it based on our traffic survey, part of the overall traffic plan, composed of vehicular traffic and railroad traffic. What we were able to present before the Railroad Commission at the hearing, the master plan and the traffic data, aided in finally determining the pro rata cost by the railroad, by the

public body, and by the road department as to the cost to be paid by each party. This became the financial plan. It was practical in every sense and approved by every authority who had anything to do with grade separations. So planning didn't finish on the drafting board. It had to be carried out by the people who had to build these things. That was the mission that, as the head of that department, I had to direct and carry out.

The ratio of airplanes to population I want to call attention to is on page 160. It was projected to the year 1960.

HOLDEN: I think we can change to another first in the activities of the planning commission. It has been my understanding that the agricultural zones were first developed in a Los Angeles County ordinance around 1929.

FOX: I'll give you the history of that. I think that the concept and the thinking about it probably began in 1929. It wasn't until many years later that we actually put that concept into law, into a plan that was backed up by an ordinance. Actually, the agricultural zone began as an area situation. In other words, the main idea about an agriculture zone, again relating to zoning by design, is to make sure that there is area enough to accomplish the integral parts of the plan that the zoning is designed to permit. In other words, it is not very good planning to

plan a park if you haven't got enough area for a park, or an airport, or even a highway. In other words, in widening a highway that may be a local street today, someone must make a study to find out what is involved in widening. It may have to change the route because of multistory buildings or improvements that can't be moved. Or maybe there is a cemetery--one of the hardest things to move, incidentally. Or in order to adjust to obstacles you may have to take the widening all from one side instead of splitting it equally on either side. All those things enter into the detailed studies of a highway location.

So this matter of area zoning: The first area designed was made in the city of San Marino, my own town where I lived. I had a request made to the department by the city council of that town. San Marino had been very nicely designed by the curvilinear pattern or configuration, as described in the previous discussion. Many of the residential areas of San Marino had been sold to owners as described. Most of the city had been laid out by curvilinear design. Many of the lots were two and three acres in size. Very wealthy people on the north end of town wanted to keep the lot sizes that way, and the town wanted to keep it that way. That was the way it was laid out and purchased by lot owners in good faith. But there was always the pressure by real estate people to cut up

some of the largest parcels to get more lots. Maybe one man who may have owned a piece of land of three or four acres might leave the town and sell it to someone who would want to subdivide that parcel into little internal dead-end streets. But that would tend to not only injure the adjoining property, but begin to change the character of the community into small lots.

The city council saw what might happen and wanted to know what the relief was. Well, the only relief that we could come up with at that time was area zoning. In other words, it had never been tried out in law. It had never been tried out in any zoning plan before or any practical plan that we knew of. So I went again to our legal adviser, Beach Vasey. "How do we do it legally?" Well, we had to have a situation that demanded it more than just some wishful thinking in San Marino. There didn't seem any emergency that would support an ordinance to that effect.

The emergency came up in the Flintridge area. The Flintridge area was laid out by Senator [Frank P.] Flint, and, again, it was laid out on rather sizable lots and the property had been sold in good faith to the people, who had improved their property at great expense by landscaping and improvements covering all of their larger lots. But in the Flintridge case there was still a lot of property left unimproved but in large lot sizes. And the result is that

Senator Flint apparently had a change of heart after he had sold most of the property to people who in good faith improved their lots with some very large homes. Flint wanted to cut the rest of it up into small lots. We didn't have a very firm subdivision ordinance at that time that would prevent this. He was going to cut the remainder down even to thirty-foot lots, rumor had it. And rumor sometimes turns into reality. The people became very frightened. They envisioned a slum type of development coming into their improved community.

HOLDEN: What year is this?

FOX: This is about 1930 or '31 or '32. We are just coming out of the Depression. That's what he wanted to do, and he was going to have a public auction to sell off all the remaining property in the form of thirty- and fifty-foot lots. We, the RPC, received a petition from an osteopath doctor, Vernon M. Richardson, whose office was in Pasadena, and he had one of the nicest estates up in there. They pleaded for relief, something to stop the auction sale of lots. By the way, the plan was already advertised, and they were going to have a big auction on Sunday and sell off these small lots. The people up there who had already improved their property as rather sizable estates became alarmed. I then went to the [Los Angeles County] Board of Supervisors and asked them to pass an emergency zoning

ordinance to prevent changing the established areas. In other words, to maintain the subdivision as it was, as it was laid out and recorded.

HOLDEN: Like one acre in area.

FOX: One acre or whatever it was as a recorded subdivision, just freeze it as recorded and sold. But the county counsel advised it wouldn't stand up in law to pass on an emergency basis. The ordinance would have to have the normal two public hearings before passage into law. By that time we knew that the auction would have been held and the damage would have been done. So I again went to our legal friend Beach Vasey and said, "How can it be done?" Well, he couldn't go back on the ruling by his department that legally speaking it would not stand up in the court as an emergency ordinance. But we did it this way (I have to say this rather softly): The county counsel wasn't present during the board meeting. I then pleaded with the board, "Let's pass the ordinance now. By the time they get it to court to test its legality, the auction will be stopped, and by that time we could pass the ordinance with all the required public hearings according to law." That is what we did. And that's how it was done.

I used that same procedure in the case of the city of San Marino, but did have the required public hearings. The city was laid out by Huntington Land [and Improvement]

Company, and Seymour Bisby was their engineer, along with Bill [William B.] Chamers, the city engineer. The advisory consultation [that] came from me then as a young planning engineer was as a resident of the city: an area zoning is to prevent the owner from being exploited by real estate promoters.

HOLDEN: Did you try to protect actual larger agricultural lands, orange groves?

FOX: At that time we did not. At that time we did not, no. That came much later, but the concept grew out of what I am talking about. That was the trial balloon on area zoning.

HOLDEN: Good. Okay, let's go on a bit. In the latter period, of course, you were in charge of the county engineer's office, and therefore of county buildings and the architectural department. So you probably know something about the civic center, particularly the courthouse and the county administration building, and about some of the controversy that--

FOX: I certainly do. I got in on the ground floor as to the planning part, and then came into it later as county engineer on all the building part of it, including the courts building. All public buildings had to go through my department for checking and supervising of the building by the county engineer, because the architectural department

was under my jurisdiction. No county building could be built by anyone without approval by the supervisors. And they always looked to the county engineer's architectural department for a review and check of the plan. Every structure.

HOLDEN: There are a couple of things that happened along the way. Let me ask you about them and whether they're--

FOX: By the way, the civic center plan is right in here. The civic center plan is right in here, made by Werner Ruchti.

HOLDEN: The civic center plan for downtown Los Angeles?

FOX: Oh, yes, sure. It included city, county, state and federal buildings.

HOLDEN: One of the older ones.

FOX: Yeah, the original civic center plan is right in here. I'll give you the page and the whole history--there it is there. There's what we found. On page 129 is the superimposing of the new civic center plan on the bunch of random streets that you can see there that had to be chewed up and vacated. The actual formal plan is on the opposite page, on page 128. That was approved by the board of supervisors, by the city council, and by the United States government.

HOLDEN: I see.

FOX: Anyhow, it was approved by all public bodies

concerned. They were about to build a federal building. They were about to build a new hall of administration, a county courts building, and a federal jail.

HOLDEN: This was all prewar? This was in the thirties?

FOX: Oh my, yeah, way prewar. This official plan was designed by Werner Ruchti in 1935. His name is right on here as landscape architect for the regional planning commission. And that civic center plan was approved in June 1927.

HOLDEN: That's the early plan. [inaudible]

FOX: No. There was the Cook, Hall, and Cornell plan which extended further on to the west, including Bunker Hill. That was not adopted as an official plan at that time. It should have been adopted, because it was the best plan. I understand it's been chewed up since. The Cook, Hall and Cornell plan extended westward from where we left off. In other words, it extended beyond Hill Street. The official plan here referred to went from Main Street to Hill Street, from Fifth Street north to Ord Street. That included the chapel in the old city plaza.

HOLDEN: Now, there was some controversy where the courts building was originally planned on the north side of the current plaza and it was switched to the south side. Do you know anything about that controversy?

FOX: No, I don't. The buildings that are shown on this

plan, number one is the county courts building; number two is the state building; number three is the city hall which existed; number four was the traffic safety building; number five was the hall of justice; number six was the new federal building; seven was an engineering building; eight was the counselor offices; nine was the Plaza Church, which was retained at its original site and was donated by the viceroy of Spain for the church; then number ten was the health and education building; and number fourteen was the Latin American hall; and twelve was the foreign trade building.

HOLDEN: All right. Also, in the latter part of your period of employment by the county, what was your official title with the department of building and safety works? Chief engineer?

FOX: Yes, chief engineer.

HOLDEN: Of the county engineer's office. Yeah, okay. Along toward the end of that time, some environmental problems began to come up, most particularly air pollution, right after the war. Were you involved in any of the initiation of studies, and so on, on those kinds of controversies?

FOX: Pollution?

HOLDEN: Yeah. Or water pollution.

FOX: We had in the county engineer's department a division

of industrial waste. Not involving air, it had nothing to do with the pollution of air. But industrial waste, yes. We had a very competent division for all industrial waste. So did the city of Los Angeles, both of us working diligently on that all that time. I can say this, that the magnitude of industrial contamination grew geometrically as time went on, but we had a start. But not air pollution. No, we have nothing at all to do with that. That came later via the creation of the air pollution control board [South Coast Air Quality Management District].

HOLDEN: All right. As we conclude the sections here on planning, a last question: Do you have any items or ideas that you'd like to convey to today's young planners?

FOX: Yes. Naturally I've given a great deal of thought to that idea. First of all, one has to be indoctrinated with the planning concept against doing things by guess and by god, and believe in planning and believe there is a need for planning. Development in an orderly manner will grow if you have the concept and that belief. The planning habit becomes a prelude to development. Then it becomes a matter of learning how to plan it.

All I can say here about the "how" is that these four reports that we prepared were done with that in mind. In those four reports are diagrams and plans and abundant descriptive matter of how the planning was undertaken, how

we did the job, how we did take what we found and how we transposed the data into a better plan. And we produced a plan that was as near perfect as we could devise for the future, so that we would grow to that plan. The plan was the guide--a tangible, solid path, not guesswork. Which meant that we might find a section of the county or a city which was already impossible to correct and to evolve into an orderly plan in the same sense as if it were just raw acreage. But if the concept is right for improving the community and living conditions of its people, go to it! If the need is apparent, the demands for the plan by the public will follow. Especially so if the research is worked out to show what the results will be when [there is] good planning to superimpose upon the defiled and corrupt area.

A good plan will guide new [development] or redevelopment. Remember, in other words, old buildings deteriorate and are torn down or uses are changed. Have ready a plan to capture that piece of the new. Then by proper zoning and proper design, one single building rebuilt can be the improved standard for the community's plan. You always go by the plan. We're talking about not one year or two years or twenty-five. No community stands still. This earth has been here a long time and so has some of the old city, and we should think in terms of

beyond tomorrow. We can leave the plan for others to follow.

With the best information we have a design best suited for that community; plan the highest and best for the public good. And honesty is fundamental to fighting any tampering by politics or pressure to deviate from a plan approved by a planning commission. It becomes a complete commitment by a public body. If you are going to be in planning as a profession and if you can't administer the plan honestly, don't be in the planning business--get out. *[Remember always, in city or regional planning you are dealing with the well-being of society. It is a grave responsibility. It deserves the best efforts and complete professional integrity of every person engaged in city planning.]

HOLDEN: This concludes the interview with General Fox.

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* General Fox added the following bracketed section during his review of the transcript.

INDEX