



THE BUILDING

Building a building to house an organization that keeps changing is like trying to fit a suit on a little kid who won't stop squirming.

But that's what Tek has done.

The five-story, 230,000-square-foot Technical Center, rising on schedule in our industrial park, was conceived, and its construction begun, to fit an Engineering organization whose exact shape no one could predict. That organization has changed several times since. And still the building fits.

When the Tech Center — or "Engineering Building," as we called it — was first contemplated, as far back as 1961, Tektronix' design and related technical activity was split four ways. The need was pressing to bring the groups together. Reorganization was in the wind — but you can't build on the wind.

Managers involved came through with building designs reflecting their own views of what the organization should be. Designs ranged from rectangular to round, from flat to tall, from single buildings to complexes of two to four structures. Taking all their desires into account would have resulted in a building much larger than we would need.

Our dilemma had two horns. To delay the building until the new organization took shape would waste years, at the expense of efficient engineering effort. On the other hand, to tailor it to the existing groupings — a Research, a Future Products and an Instrument Design division, plus Manufacturing's staff engineering group — would mean it would soon be obsolete and require remodeling.

But there was an out.

"We knew we would need a build-

THAT WAS MADE TO CHANGE

ing," recalls Operations Vice-President Bob Fitzgerald. So he asked Facilities Manager F. W. "Beich" Beichley to gather from each of the three engineering divisions enough information on space needs to let us design a building to accommodate **any** foreseeable engineering and research organization.

Beich asked them:

How adequate is your present space? How many square feet would you have to add to **make** it adequate (in "wet" areas and "dry" areas)?

From these figures, compiled in May 1963 by Facilities' Mel Lofton, plus a "guesstimate" by Fitz for expansion (including space for IMSE), a plan was developed for a building shell; bids

were let and excavation begun for a building that would fit, **however the organization might change.**

Now, what we needed was a way to get the construction started. Our answer was a "two-phase" planning and bidding system.

Normally, an architect will draw a complete plan of the finished building, inside and out. When it's approved, construction starts. The **total** job is let on a single bid.

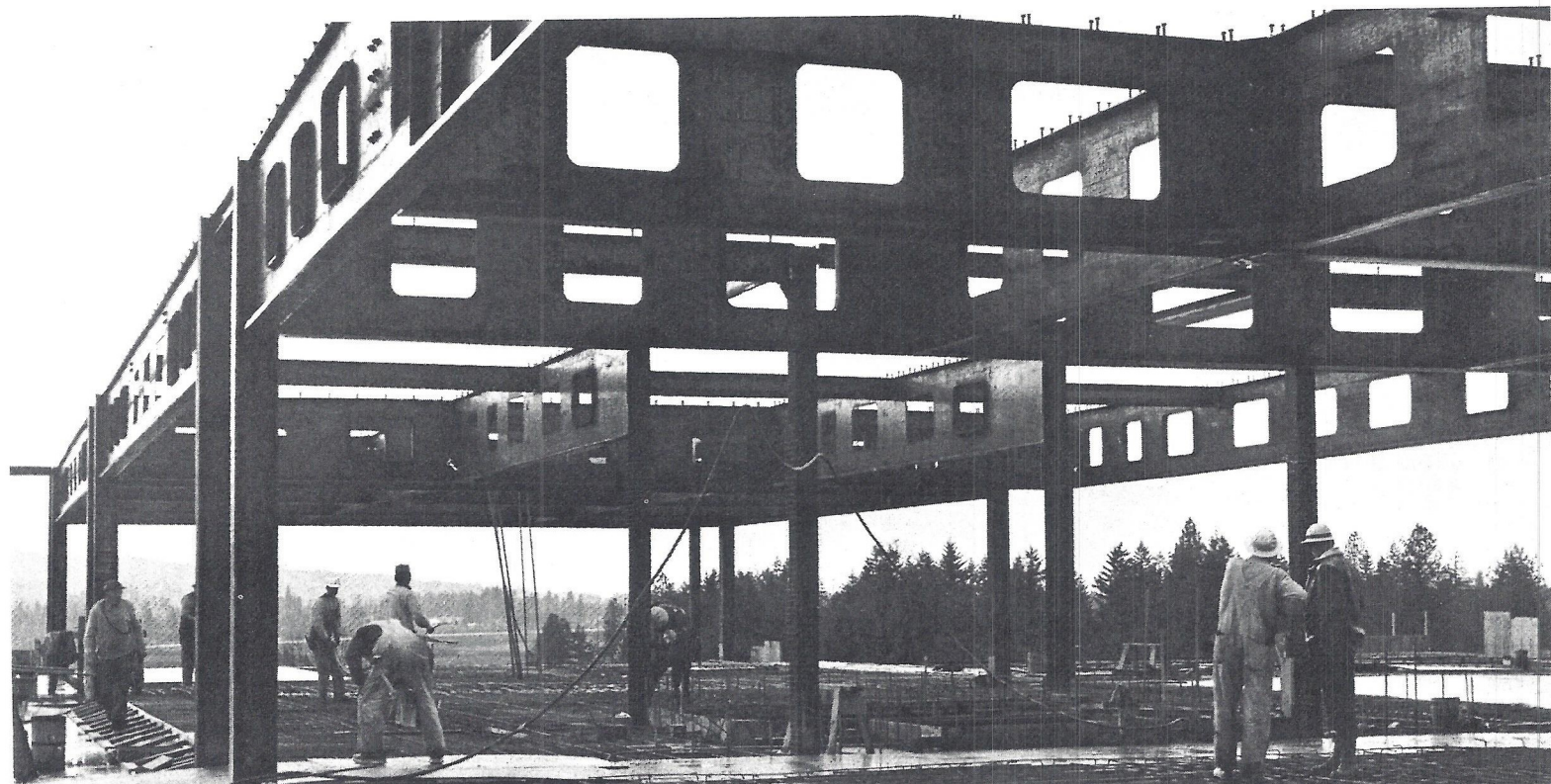
It's easy to see that an architect able to foresee in 1963 the needs of the changing Engineering organization in 1966 would have to be clairvoyant. Hence the two-phase system: A plan was drawn for the building's shell,

plus such related basics as outside stairs, large air-conditioning fans and exterior finish. The plan was approved, bids accepted, and excavation started. What would go inside, and where? We didn't know.

But now we do. The four former engineering areas are now under a single direction, that of Engineering Manager Bill Polits. And Phase II, "Who goes where?" has begun.

And if the organization should change again, as it may? Even so, the building will adapt. It has been **built** to change.

No spot on any of the first four levels need be more than 25 feet from complete utilities hookups; hot and





cold water, chemical and sanitary drains, de-ionized water, electricity, hydrogen, nitrogen, oxygen, CO₂, natural gas. In Tek's terms, the building is "potentially 100 per cent wet."

All interior walls — except those lining the four main corridors on each floor — will be portable. A wall may be put anywhere without interfering with any installation. For example, fluorescent lights will be plugin units. (Merely adjust any section of lights that's in the way.)

"We decided," Beich says, "that the building would be capable of being whatever it needed to be. In this way, the **building** wouldn't affect the **organization**—I doubt there's a more flexible building in the country. It was the brainchild of the architects (Wolff & Zimmer) and the structural engineers (Cooper & Rose.)" This is Wolff & Zimmer's sixth Tektronix building. Builder is Ross B. Hammond Co. It is their ninth Tek job.

Is the flexibility costing us? Sure, Fitz says. But so would having to remodel. (For example, the costs of remodeling Sunset alone totaled \$107,000 in the last four years — about \$27,000 a year.)

Even if it **hadn't** had to fit a shifting organization, Tek's new center would still be quite a building.

It will be roomy, functional, strategically located. And beautiful. They call it "monolithic", but it's not an apt word.

The building is a giant—73 feet from the ground to the top. The Center is 213 by 271 feet, roughly the size of our assembly buildings.

But "monolithic" suggests a Gibraltar-like hulk. Far from it, the Center will appear mostly glass. Bronze-tone windows will cover the east and west sides and two-thirds of the north and south walls. The corner columns and narrow vertical shafts will be brick-faced.

Karl Braun drive will be extended and surfaced, and will loop around a parklike island in front of (north of) the building.

Landscaping to "translate" the tall structure into the forested park will include "wraparound" parking. Rather than have one large lot, parking areas will wrap around three sides of the Center, so employees won't have to walk far. Parking eventually will be for 900 cars, but at first the lots will handle only about 600. Where possible, large existing trees will be left in the parking areas. Forested buffers will separate the lots. Employees inside, through expanses of glass, will look out on vistas of park and woodland.

Beauty aside, the building will give many operational advantages. The main one is bringing together our engineering groups. It will be the first time in years that all engineering managers will be in one place. In addition, the building will house Tektronix' corporate management.

The resulting improvements in communication can only be guessed at. As it is now, corporate meetings mean several miles of auto travel — mostly by engineers, the "off-campus" group.

"The organizational piecing-together we've done the last couple years," comments Bill Polits, "hasn't been

matched by physical regrouping." So, here and there, where there's a nook or cranny, you're likely to find an engineer working away: In the quonset, in north and south Sunset, in Plant 4, in Ceramics, in Utilities

The Center will also provide enough room—a "luxury" not every engineer now possesses. The net result will be closer contact, better communication, greater efficiency and, ultimately, better products.

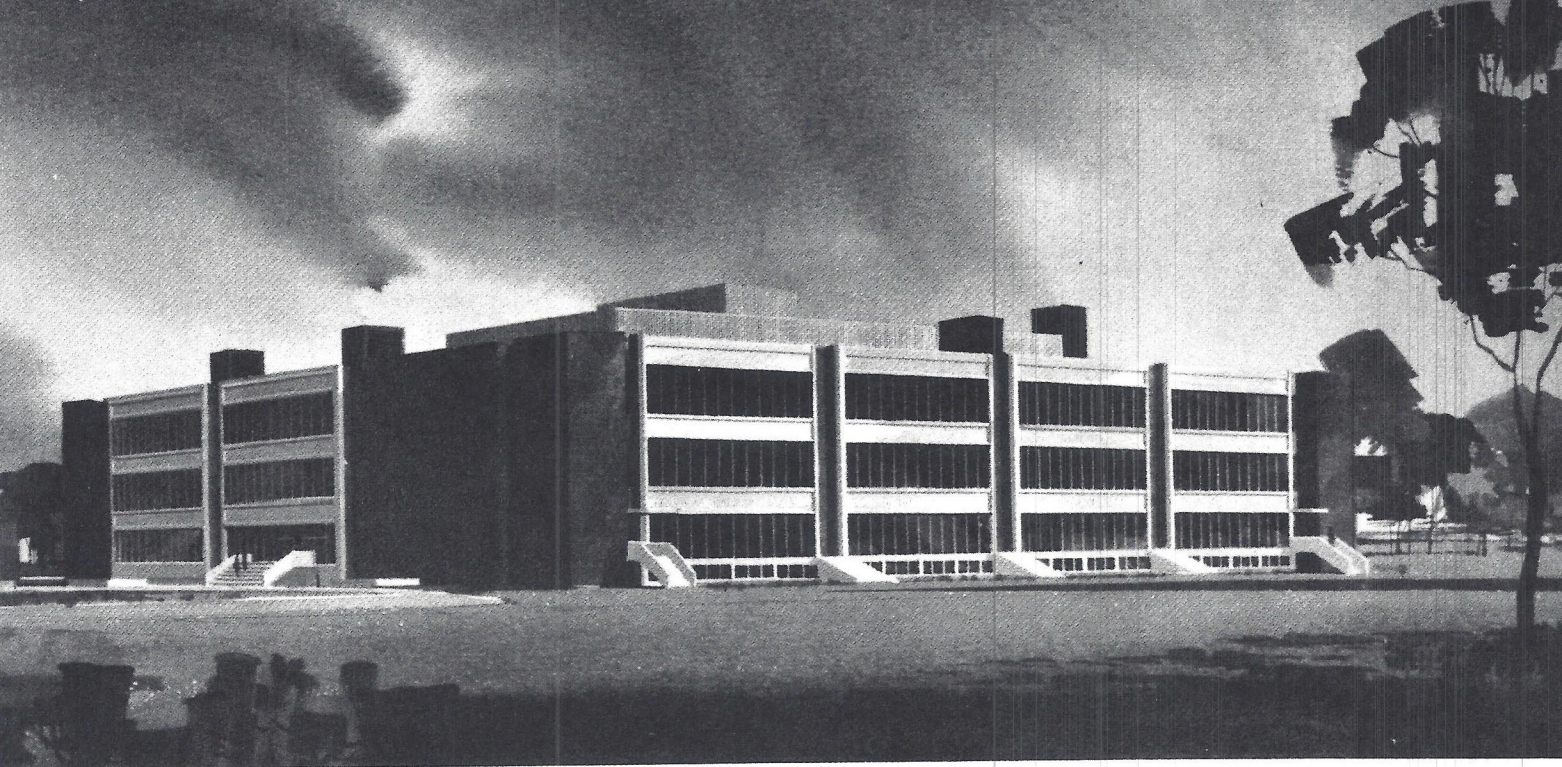
Looking to year's end (move-in may begin as early as November and last as late as March), here's what the Tech Center residents will live in:

The building has five air-conditioned levels, or floors — the daylight ground floor three-quarters underground, the top one a "penthouse" cafeteria and corporate conference rooms.

One-third of the first floor will contain mechanical equipment to make the building light, cool (or warm) and liveable: Valving, piping, water meters, fans, deionizers, phone relay equipment, transformers and motor-control centers.

Also there will be those unique engineering support groups whose function demands they be on the ground floor. One is the environmental test laboratory, which will include a pad-mounted shock-test machine. Mechanical Engineering and other noisy shop-type activities will be on this level also.

The crashing of shock tests shouldn't cause any problems; the Center is designed to be "shockproof". The 50-foot span length of the steel-and-concrete flooring was carefully selected to limit vibration. High-magnification



work, such as diode production involves, is difficult in a vibrating area. In some buildings, Beich points out, a heavy footstep at one end would make it impossible to carry out certain activities at the other.

Hot (and cold) water is supplied through a tunnel from the Utilities building, to heat and cool the Center. New boilers and chillers, costing \$242,000, will be installed in Utilities to support the new building.

Outside the ground floor is a covered dock (about 50 x 75 feet) in which Volkswagen buses and small delivery trucks can park out of the traffic.

The second floor will contain Display Devices Development (3D); all our Purchasing activity; the engineering library, and a 150-seat auditorium, adaptable for lectures, motion pictures, conferences and product displays.

Floor 2 will contain small "buffer" conference rooms, near the receptionists, where outsiders may be met without having them interfere with (or get an unnecessarily close look at) our engineering activities.

The next level, floor 3, will house Instrument Engineering; engineering drafting (other than 3D drafting); Standards and Specifications; Industrial Design; Systems Engineering and project support activities. Most Engineering managers will have offices on this level.

Part of the fourth floor will be occupied by corporate offices, select managers and key staff. Few or no office functions will be carried on there, Fitz stresses.

AS THE TECHNICAL CENTER progresses, close and constant attention is paid to each phase of construction. Here, one of the many building drawings is given a final check by (from left): Chuck Brown, Engineering building coordinator; Joe Almand, Tektronix projects manager; Carl Jonasson, Facilities Engineering manager, and Larry Frost, Mechanical Design manager.

