University research park (1962-1997). 1962/1997

[Madison, Wisconsin]: [s.n.], 1962/1997

https://digital.library.wisc.edu/1711.dl/XD2KEAQT76XFL8X

University Research Park

1•8•4•8
NEWS
UNIVERSITY OF WISCONSIN–MADISON
Office of News and Public Affairs
28 Bascom Hall • 500 Lincoln Drive
Madison, Wisconsin 53706-1380
Phone: 608/262–3571
Fax: 608/262–2331

FOR IMMEDIATE RELEASE 11/13/96

CONTACT: Edward Hopkins, (608) 262-3677

RESEARCH PARK'S WESTWARD EXPANSION FULL STEAM AHEAD

MADISON — The University Research Park (URP) has laid the ground work for its next wave of expansion with the completion of $3 million in road and landscape projects on the old Charmany Farm property.

The park held a ceremony today (Nov. 13) at 2 p.m. to commemorate a number of improvements on the 150-acre parcel, across Whitney Way and west of the current park. The ceremony was at the UW-Madison Psychiatric Institute and Clinic, one of two buildings already located on the western tract.

"With these infrastructure improvements, we're ready to begin marketing an initial phase of 107 acres to businesses," said Edward Hopkins, the park's associate director for planning. "We're on only 100 acres of land now, so this larger space offers us a lot of growth potential."

In the past year, the park has constructed approximately 1.8 miles of new streets; installed 3.6 miles of sidewalks and curbs; constructed areas for storm water drainage, sewer and water lines; and installed street lighting throughout the property. Hopkins said some final landscaping improvements are still in development.

Hopkins said the expansion opens a new window of opportunity for the park, which fully developed its first 100-acre parcel in only 11 years. Since 1985, the park has grown to 63 companies employing more than 1,600 people.

-more-

In addition to the Psychiatric Institute, which occupies an existing building on the western property, construction is nearly complete on the 80,000 square-foot Ultratec Technical Center. Ultratec, which produces telecommunications devices for the hearing impaired, has been a park tenant since 1991 and needs more room for its growing operations. Upon completion, the new Ultratec building will be the largest in the park, Hopkins said.

The new property will be developed primarily for research and development businesses and offices, which is the park's primary mission. Plans also include the development of another multi-tenant complex similar to the current MG&E Innovation Center, an incubator for small-scale research companies that has been highly successful, Hopkins said.

In June, URP was named the outstanding research park in the United States by the Association of University-Related Research Parks, out of roughly 140 parks in the country.

###

— Brian Mattmiller, (608) 262-9772

1•8•4•8

NEWS

UNIVERSITY OF WISCONSIN–MADISON

Phone: 608/262–3571
Fax: 608/262–2331

News & Information Service
19 Bascom Hall • 500 Lincoln Drive
Madison, Wisconsin 53706–1380

FOR IMMEDIATE RELEASE 5/6/93

CONTACT: Wayne McGown, (608) 263-8150; Bob Baumgartner and Kent Van Liere, (608) 232-2800

GROUNDBREAKING SET FOR NEW RESEARCH PARK BUILDING

MADISON — A growing marketing and economic research firm will double its space once a new 39,000-square foot University Research Park building is completed.

Ground will be broken on Tuesday, May 11 at 4 p.m. for the building. It'll be located at 455 Science Drive in the park, located on Madison's west side at the corner of Mineral Point Road and Whitney Way.

The firm, HBRS, will occupy 80 percent of the new building. The new building will allow the firm, which has been a tenant in the park since 1990, to double its existing space.

HBRS does applied social science research, explains co-owner Bob Baumgartner. "What we do is known as evaluation research. For example, we help utilities evaluate conservation programs, or do surveys for the National Park Service to find out what visitors liked or didn't like," he says.

The firm began 11 years ago in a basement on University Avenue. Over the years it has expanded not only in Madison, but also around the country. The firm has an office in Boston and is opening another one in San Francisco.

Kent Van Liere owns the firm along with Baumgartner. Both work in the Madison office.

HBRS has 30 full-time technical and support staff and employs another 30 to 40 full - and part-time people in its telephone and mail survey research division. Baumgartner

-more-

and Van Liere expect to add up to 25 additional employees in the next few years.

Providing the new building shows the park's ability to help burgeoning firms, said Wayne McGown, the park's director. "We continue to be able to accommodate the needs of rapidly growing firms by offering facilities that allow them to thrive and develop," he says.

The new building, which is slated for completion in January 1994, marks the second major addition of space to the park to be started this year. Construction of Park West II, which will offer general business services, began earlier this year and is due to be completed by late 1993.

The University Research Park is a non-profit corporation, affiliated with the University of Wisconsin-Madison. The 325-acre park is home to 45 firms, which employ approximately 1,100 people. More than one-third of the park is committed to development. With the completion of this building, the park will have 525,000 square feet of office and lab space.

###

— Harvey Black, (608) 262-9772

1 • 8 • 4 • 8
NEWS
UNIVERSITY OF WISCONSIN–MADISON
News & Information Service
19 Bascom Hall • 500 Lincoln Drive
Madison, Wisconsin 53706–1380
Phone: 608/262–3571
Fax: 608/262–2331

FOR IMMEDIATE RELEASE 11/22/91

CONTACT: Wayne McGown, (608) 263-8150

JAPANESE EXECUTIVES TO TOUR UNIVERSITY RESEARCH PARK

MADISON -- When Japanese business executives visit the Research Park of the University of Wisconsin-Madison this weekend they will be looking for potential business opportunities here and at an actual model of a concept that might work well in their own country.

The University Research Park is one of only nine such facilities in the U.S. -- there is nothing comparable in Japan -- to be visited by the 20-member delegation, which consists of representatives of pharmaceutical firms and other businesses.

"We're pleased that the University Research Park is so highly regarded that it is included on a tour of a limited number of university-related research parks in this country.," said Wayne McGown, director of the University Research Park. "This visit gives Wisconsin another chance to show the Japanese that the state is a good place in which to conduct research and do business."

Earlier this fall, another delegation of Japanese executives visited UW-Madison as part of the Japanese Midwest Conference.

###

--Harvey Black, (608) 262-9772

UNIVERSITY OF
WISCONSIN
MADISON

AGENDA

JAPANESE STUDY TEAM ON UNITED STATES RESEARCH PARKS
University of Wisconsin-Madison
University Research Park, University of Wisconsin-Madison

Sunday, November 24, 1991

6:00 - 8:00 p.m. Dinner at Nakoma Country Club
Sponsored by Donna E. Shalala, Chancellor, University of Wisconsin-Madison
4145 Country Club Road, Madison, Wisconsin

Welcoming remarks on behalf of University of Wisconsin-Madison
- John D. Wiley, Dean of the Graduate School

Welcoming remarks on behalf of the State of Wisconsin
- J. Frederic Ruf, Deputy Secretary, Wisconsin Department of Development

Monday, November 25, 1991

Seminar: University of Wisconsin-Madison's Research Strengths and Relationships with Industry
14th Floor Conference Room
Wisconsin Alumni Research Foundation Building
610 Walnut Street, Madison, Wisconsin

8:30 a.m. University-Industry Research Program
- Dr. Philip Z. Sobocinski, Acting Director
- Professor Donald Novotny, Associate Director

8:45 Biotechnology Center
- Professor Richard Burgess, Director

9:15 University-Industry Research Consortia in Biotechnology
- Professor Douglas Cameron, Director
  Bioprocess & Metabolic Engineering Consortium

9:45 UW-Madison/Japanese Programs
- Professor James L. Davis
  Engineering Professional Development

10:15 Material Science Center
- Professor Arthur Ellis, Director

10:45 Break

11:00 Wisconsin Department of Development Programs
- Philip Albert, Director, Development Finance

Office of the Chancellor

Bascom Hall University of Wisconsin–Madison 500 Lincoln Drive Madison, Wisconsin 53706–1380
608/262–9946 FAX: 608/262–8333

Tour of University Research Park

11:30 - 12:00 noon	Travel to University Research Park Corner of Mineral Point Road and Whitney Way, Madison, Wisconsin
12:00 - 1:00 p.m.	Luncheon sponsored by University Research Park First Business Bank of Madison's Board Room 406 Science Drive Luncheon remarks by David Mebane, President Madison Gas and Electric Company
1:00 - 2:00	Overview of University Research Park • Wayne McGown, Executive Assistant to the Chancellor and Director, University Research Park • Greg Hyer, Associate Director University Research Park
2:00 - 2:30	University Research Park Company Presentations • Dr. Karl Schick, President Eppendorf North America • Dr. Herb E. Paaren, Vice President and Director of Research Tetrionics
2:30 - 3:00	Ultratec Tour and Presentation • Kevin Colwell, Vice President of Research and Development
3:00 - 3:30	Rhône-Poulenc - Marschall Dairy Products Tour and Presentation • Dr. Doug Willrett, Technical Director
3:30 - 4:00	Travel to Hazleton Laboratories America, Inc. 3301 Kinsman Boulevard, Madison, Wisconsin
4:00 - 4:50	Hazleton Laboratories America, Inc. Tour, Presentation and Reception • Robert Conway, Corporation Vice President • Shig Mizuno, Manager Client Development-Asia
4:50 - 5:00	Travel to Dane County Regional Airport

University Research Park

University of Wisconsin-Madison

Corporate Profiles

Summer, 1991

CG Technologies is an environmental microscopy laboratory providing analytical services which include building material analysis, air sampling and monitoring to clients throughout the United States. For further information contact: Ms. Carol Gannon, 535 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-7811.

Corporate Playcare provides child care for children from infants through age 5 who are employees of CUNA Mutual Insurance Association, CUNA and credit unions. For further information contact: Ms. Martha Harrison, 11 Science Court, Madison, Wisconsin 53711; phone: 608/238-6700.

Credit Union National Association (CUNA) and CUNA Mutual Insurance Group provide services and programs to credit unions and their members world-wide. They plan to expand their international headquarters into the Park. For further information contact: Mr. Richard Heins, CUNA Mutual, 5910 Mineral Point Road, Madison, Wisconsin 53701; phone: 608/238-5851 or Mr. Ralph Swoboda, CUNA, phone: 608/231-4000.

Eppendorf North America is involved in the development, manufacture and marketing of laboratory instruments and on-line process analyzers. In addition, the company markets molecular biology instruments and equipment designed and manufactured by its parent company, Eppendorf-Netheler-Hinz GmbH, which is located in Hamburg, Germany. For more information contact: Dr. Karl Schick, 545 Science Drive, Madison, Wisconsin 53711; phone: 608/231-1188.

First Business Bank provides banking services to businesses and business people. For more information contact: Mr. Jerry Smith, 406 Science Drive, P.O. Box 4961, Madison, Wisconsin 53711; phone: 608/238-8008.

Fiskars, Inc. offices in the Park are involved in research and development for world-wide consumer products, new manufacturing processes and materials. Fiskars, the oldest industrial corporation in Finland, manufactures and sells quality household and professional cutting tools and uninterruptible power supply systems for telecommunications and data processing. For more information contact: Dr. Larry Carter, 535 Science Drive, Suite D, Madison, Wisconsin 53711; phone: 608/233-1800.

Foth and Van Dyke is a full-service engineering/architectural firm with offices in Green Bay, Madison and Milwaukee, Wisconsin; Minneapolis, Minnesota; St. Louis, Missouri; Tampa, Florida; and Chicago, Illinois. Specialties include buildings and site development, environmental protection, transportation, utility systems, resource management, and manufacturing processes and facilities. For more information contact: Mr. Doug Stitgen, 406 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-4761.

Genetics Computer Group, a UW-Madison research and development project which has developed into a successful private company, produces and supports an analysis software package for assembling and analyzing biological sequences. The package is used by 12,000 scientists in 290 universities and 25 countries. The company was formerly affiliated with the UW-Madison Biotechnology Center. For more information contact: Dr. John Devereux, 575 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/231-5200.

Grassland Media offers complete video production services, including scriptwriting, production, direction and post-production to business and industrial clients, agencies, associations and government. For more information contact: Mr. Stuart Stroup, 535 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-7575.

Hazleton Laboratories America has an analytical environmental chemistry operation located here. The company is principally engaged in providing laboratory services to the pharmaceutical, chemical and food industries. Hazleton is a subsidiary of Corning Glass, New York and has operations in Virginia, New Jersey, Florida, France and England. For more information contact: Mr. Robert Conway, 3301 Kinsman Blvd., P.O. Box 7545, Madison, Wisconsin 53707; phone: 608/241-4471.

HBRS, Inc. performs market research and economic analysis on energy and natural resources issues for customers nationwide. For information contact: Mr. Kent Van Liere or Mr. Robert Baumgartner, 585 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/231-1011.

Marschall Products, Rhone-Poulenc, Inc. is a developer, manufacturer and marketer of ingredients primarily to the dairy industry. The name Marschall to the dairy processing industry has meant reliability, quality, innovation, service and leadership since 1906. For more information contact: Mr. Cleo Weibel, 601 Science Drive (after 11/1/91); phone: 608-276-3585.

MGE Innovation Center, sponsored by Madison Gas and Electric, provides below market laboratory and office suites to early stage companies. Companies have access to shared laboratory and support services and a conference room. Companies also have access to strategic business and scientific advice from a venture capital firm and the University of Wisconsin-Madison. For additional information contact: Ms. Ellen Larson-Marty, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-5054.

Medical Media Associates Inc. (MMA) specializes in medical communications, offering services to a national and international clientele. Clients include product manufacturers, pharmaceutical companies, clinics, hospitals, government agencies, HMOs, professional medical organizations and voluntary health organizations. MMA provides a full range of marketing, public relations, and educational services. For more information contact: Ms. Edith Oberley, 585 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-1054.

Metropolitan Life is an insurance company which deals with all forms of insurance. They are also involved in investments, mutual funds, and financial planning services. For more information contact: Mr. James M. Lewandowski, 406 Science Drive, Suite 200, Madison, Wisconsin 53711; phone: 608/231-3399.

early stages in development

NemaPharm, Inc. develops and applies innovative drug-discovery technologies using well-studied model organisms, principally the soil nematode Caenorhabditis elegnas. The focus of NemaPharm includes both novel agricultural chemicals and animal health agents as well as new human pharmaceuticals. For more information contact: Dr. Carl Johnson, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-2404.

New York Life is an insurance company which sells and services life and disability insurance, annuities, as well as security products through New York Life Securities. For additional information contact: Mr. Ray J. Hegg, 406 Science Drive, Suite 310, Madison, Wisconsin, 53711; phone: 608/238-3400.

Norrell Health Care is located at 406 Science Drive, Madison, Wisconsin 53711. For further information contact: Mr. Don Anderson; phone: 238-8878.

Novagen is a biotechnology company specializing in the areas of custom gene libraries and advanced products for genetic research for private industry, universities, clinical research laboratories and the National Institute of Health. For more information contact: Dr. Robert Mierendorf, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-6110.

Oral Health International performs dental care research and systems analysis in order to provide group or corporate purchasers of dental care a means of assessing the quality of dental care and treatment. For more information contact: Dr. William Schemmel, 585 Science Drive, Suite C, Madison, Wisconsin 53711; phone: 608/833-1448.

Parkway Hospital, a subsidiary of HCA Psychiatric Company, specializes in short term in-patient treatment of children and adolescents with psychiatric disorders. Parkway also provides university researchers with labs for research on more effective treatment for a broad spectrum of disorders. For more information contact: Mr. Jim Meyers, 6001 Research Park Blvd., Madison, Wisconsin 53719; phone: 608/238-5151.

Persoft is a software development and publishing company with terminal emulation, RAM-resident program manager and data base management products. For more information contact: Mr. Thomas Wolfe, 465 Science Drive, Madison, Wisconsin 53711; phone: 608/273-6000.

Piper Jaffray and Hopwood is an investment company and member of the New York Stock Exchange. For more information contact: Mr. Richard J. Thompson, Managing Director, 406 Science Drive, Madison, Wisconsin 53711; phone: 608/238-8800.

Preschool of the Arts provides early childhood education with an emphasis in the arts for children from ages 2 through 5. For more information contact: Ms. Barbara Goy, 11 Science Court, Madison, Wisconsin 53711; phone: 608/233-1707.

Sonoco Products Company is an international Fortune 500 company based in South Carolina which produces paper products from recycled paper for the textile, paper, packaging and shipping industries. A research and development program about the strength and deformation properties of their products is located in the Park. The program uses a Cray Research supercomputer and a software package developed in Madison. For more information contact: Dr. Terry Gerhardt, 555 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/231-3060.

H. J. Steudel and Associates, Inc. provides high-level management and software solutions to assist industry in implementing world-class manufacturing. The following products and services are provided: manufacturing systems, analysis, total quality management, facilities planning, STARCELL simulation software, and custom software and systems modeling. For more information contact: Mr. L. Gene Berg, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-4406.

Stress Photonics, Inc. conducts research and development in the area of applying differential infrared thermography to the non-destructive, non-contacting evaluation (NDE) of materials and structures from room to high temperatures. A benchmarking method will be established to optimize stress resolution and speed of imaging using current technology. A new thermographic stress analysis and non-destructive evaluation system will be designed and analytically evaluated against the benchmarks. For further information contact: Mr. James C. Rice, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-2878.

Synertron is a privately-owned clinical trials management company providing consultative services, data management and statistical analysis support for therapeutic investigative trials of patients with cancer. For more information contact: Dr. Richard Smalley, 575 Science Drive, Suite D, Madison, Wisconsin 53711; phone: 608/231-4477.

Tetrionics, Inc. is an FDA registered Good Manufacturing Practices (GMP) organic synthetic laboratory specializing in the production of experimental pharmaceuticals and pharmaceutical products with emphasis in the Vitamin D area. GMP status permits the material produced to be used by human subjects in clinical trials during the new drug development and as actual therapeutic agents. For more information contact: Mr. Herb E. Paaren, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-3115.

Ultratec, Inc. is a world leader in supplying communications devices to the deaf and a leading supplier of signaling systems for hearing impaired. Ultratec has their corporate headquarters, technology center and national service center in the Park and a European sales office in London, England. For more information contact: Mr. Robert Engelke, 450 Science Drive, Madison, Wisconsin 53711; phone: 608/273-0707.

United States Geological Survey Water Resources Division's Cartographic and Publications Program specializes in thematic and digital cartographic methods and products to support hydrologic studies nationwide. Their maps, prepared by traditional and digital imaging methods, document the collection and analysis of data on the quantity and quality of surface and ground water, water use and precipitation. For more information contact: Mr. Greg Allord, 505 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-9333.

Venture Investors of Wisconsin specializes in providing early stage seed and venture capital financing to Wisconsin growth companies. Portfolio companies represent such diverse markets as biotechnology, medical instrumentation and services, marine electronics and software. Venture Investors is also responsible for the day to day management of the MGE Innovation Center. For more information contact: Mr. Roger Ganser, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-3070.

Warzyn provides environmental engineering services nationwide. Warzyn's corporate headquarters is in Madison and they also have offices in Milwaukee, Minneapolis, Chicago and Detroit. For more information contact: Mr. Charles Stoll, 555 Odana Rd., Madison, Wisconsin 53719; phone: 608/273-0440.

Wisconsin Center for Demand Side Research brings Wisconsin utilities, the Public Service Commission, and the university together to research energy efficiency. They are charged with sponsoring, conducting and coordinating research that will help all sectors of the state economy (residential, commercial, industrial and agriculture customers) achieve maximum economic levels of energy efficiency, and making the research results available to appropriate decision makers. For more information contact: Dr. Sheldon Feldman, 595 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-4601.

Wisconsin for Research, Inc. (WFR) is a private, non-profit organization formed in 1980 to promote cooperative efforts between the University of Wisconsin-Madison and Wisconsin businesses for the benefit of both. Since its inception, WFR has developed or co-developed several projects to support technology transfer and economic development efforts in the state. WFR developed and operated a small business incubator and the Wisconsin For Research Seed Capital Fund and participated in the formation of the Wisconsin Venture Fair and the Madison High-Tech Consortium. WFR has also worked with the university on conferences and corporate seminars. For more information contact: Ms. Noel Pratt, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-3031.

Xylan is a research and development company working on the development of enzyme and fermentation technologies for converting agricultural and industrial wastes to livestock feed, dietary fiber and chemical feedstocks. For more information contact: Mr. George Tyson, 555 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-4600.

University Research Park
1265 Wisconsin Alumni Research Foundation Building
610 Walnut Street • Madison, Wisconsin 53705
Phone: 608-262-3677 • Fascimilie: 608-263-2841

Cultivating Brick & Mortar

University Research Park

Dane County's industrial parks, corporate centers are blossoming; The plans and dreams take shape

BY HAYWARD ALLEN

The traveller entering or exiting a metropolitan area usually passes by what look like architectural gardens — "blooms" of buildings designed exclusively for a plot of land. Some are illustrious because of their color and shapes. Others are drab and resemble patches of weeds. Yet, across the United States, these business developments are among the earliest identifying factors that distinguish the major from minor cities.

Corporate Report WI July 1990

They are called different names and are based upon a variety of themes: Commercial or Corporate Centers, Business or Industrial or Research Parks.

Consider the Interstate collections before arriving at O'Hare Field in Chicago. Areas of the Twin Cities and Milwaukee have clusters of varying structures on their outskirts. In the Fox Valley, a variety of developments sidle up to Highway 41 between Fond du Lac and Green Bay.

There is a certain irony in the fact that Wisconsin's capital city only recently began to add this kind of arrangements to its tall-grass prairies, cornfields and housing developments. There are many reasons, of course, logical and legislative, why Madison has waited so long to dedicate real estate parcels specifically to business and industry, commerce and research.

In this context, *Corporate Report Wisconsin* is presenting Dane County "parks" and "centers" as being distinct from those corridors randomly built and owned, such as along South Stoughton Road on Madison's far east side or scattered on Odana Road on the city's far west side. The critical distinction is that parks and centers are generally the dream, plan and investment of single real estate developers or development entities.

ONE OF THE KEY PLAYERS to the timing of Madison's "commercial neighborhood" development has been the University of Wisconsin. For nearly a century, the UW owned a high concentration of west-side real estate beyond sight of the central campus area.

This was not avaricious speculation but was driven by academic necessity. The UW was one of those rare land grant universities that not only coupled the traditional colleges of the sciences and arts, medicine and law, but also a world-renowned college of agriculture. Only recently has its need for great expanses of fields for practical demonstrations of farming techniques and experimental research been condensed to laboratories and test plots or greenhouses.

After WWII, the UW sold its first west-side farmland to neighborhood developers in the city's Midvale area. What certainly seemed risky and curious to citizens at the time, the university also chose to invest in what has been called Madison's first shopping center, Hilldale, and it still holds title to the property. Some developers consider it also to be the city's most successful mall operation, in terms of income and occupancy.

While there are those who now object to such a large commercial enterprise in what has become a domestic area, few can complain about the integrity of the various neighborhoods that have grown and matured on what was UW acreage. Hill Farms is another first, for it became the first major blip on the Madison skyline outside the city's center. High rise apartments and state government office buildings occupy a relatively small space, surrounded by ordinary housing and stray service and commercial businesses. Meanwhile, farther to the west, UW farms were sold to housing developers, a careful divestiture of pasture and cropland.

In the early 1980s, the UW began to quietly court research and corporate development — an entirely new real estate market. In a critical decision, a large, 300-acre parcel of prime land was committed to a very different, yet familiar market: research and scientific development. The result is the University Research Park.

It is not the intent of this investigation to solely extoll the developmental procedures and processes that have begun to bear significant economic and scientific fruit for the University of Wisconsin. The University Research Park has not been without its early setbacks — losing, for example, Agracetus to Middleton in its first bidding for a major tenant. Yet, it is meaningful to recognize the importance of the URP in the overall picture of Dane County commercial and research or industrial park developments.

On the other hand, it is also relevant to realize that the URP has the full weight of being one of the world's top academic institutions and research funding sources. If one closely looks at the promotional aspects and prospectus of URP, there is no doubt that UW linkages are critical to the park's developmental success and future. The fiber optic network linking the park to the University is key to the symbiotic relationships.

THE UW CERTAINLY DID NOT own all of the land west of the campus. Over the years, various developers purchased land previously dedicated to cows and corn and transformed it into housing and commercial properties. Locally, the names of these people have achieved their own stardom: Dohm, Ring, Hovde, Monson, Flad, Livesey, just to name a few.

The newest major player on this high-rolling team is George Gialamas, president of Gialamas Co. His forages into various real estate developmental projects over the past decade have used land zoned for either housing or commercial development, including strip malls. If there is a singular preoccupation for Gialamas, however, it is the development of a property that's making an indelible mark upon the community's evolution and history.

Gialamas' Old Sauk Trails Park is the University Research Park's only real competition within the city limits. Even then, it is not really a battle, since the two are dealing with different markets. They are, however, competing on aesthetic and occupancy rates. There is research going on at Old Sauk Trails Park, but it is not linked necessarily to the UW. There is business being conducted at URP, but it is very different from that at Old Sauk Trails. One may buy land at Old Sauk Trails Park but only lease it on the University's property.

What is most interesting about OSTP is Gialamas' vision of what he calls "a place founded on the principle of quality." When he looks out his span of windows on the top floor of the First Wisconsin Financial Center, he can see the past as well as the present and future.

"Ten years ago, this was rolling acres of corn," he says, "but I could also see buildings, corporate offices, research facilities. It was a dream then, and it is still a dream to be fulfilled. But we are much, much closer to completing that vision."

It is a 400-acre vision, selling at about $100,000 per acre, which is considered by some to be less than real market value. Gialamas is the developer while a Rural Insurance subsidiary owns the land. Whereas the land's output once was measured in bushels, now it is in square feet. At present there are 600,000 square feet occupied, but the number being used or being built will top the one million mark by year-end.

The list of already installed or building occupants of OSTP is considerable and impressive: CUNA Mutual Insurance, Heurikon Corporation, MCI Telecommunications, Mattson Instruments, Wisconsin Power and Light, Wisconsin Milk Marketing Board, the American Automobile Association, State Farm Mutual, Viking Insurance, Lutheran Brotherhood, and about two dozen other corporate entities.

What makes the Old Sauk Trails Park a class act is its setting and amenities. Beyond what were the fields of corn are several large stands of newly planted trees; creek beds; soft, sloping hills and vistas. There is a day care center in place for workers. There are jogging and walking trails. There is the nation's first Budgetel Dome, a businessman's four-star motel at traveller's prices and with a pool under the dome. OSTP occupants can use the Dome's facilities, and there is a health and fitness center being planned for the Old Sauk Park.

"This is an exciting time," Gialamas says, "but the greatest satisfaction will come when the last piece is in place. In this business, the toughest thing is time."

AS MENTIONED EARLIER, URP "lost" its first key tenant, Agracetus, to the City of Middleton. Madison's City government could not act quickly enough when it came to tax incremental financing or industrial revenue bonds or the promise of specific services. Middleton had within its city limits an area already zoned for the kind of work and facilities the once California-based agribiological research firm needed. (Agracetus was recently purchased by W.R. Grace, which also owns American Breeders Service in DeForest.)

"We had what they needed, and we wanted them to locate in our Golf Green," says Ron Grosse of the Middleton Area Development Corporation and who is the man behind the Key Construction company, one leading element of the development, along with Hovde Development Corporation. In fact, it was Agracetus that really put the "research" into the Middleton Industrial and Research Park, located west of the small city center, bounded by U.S. Hwys. 12 and 14 and the Pheasant Branch Nature Preserve and Middleton Park system.

A drive down the streets of Middleton's entry into the corporate sweepstakes quickly illustrates its essential difference with the Old Sauk Trails development about two miles away: pre-cut, prefabricated metal buildings. While that might not seem significant, if one were to compare a mobile home park with an established brick-and-mortar neighborhood, the aesthetics and sense of permanence is not dissimilar.

The University Research Park and OSTP are not only disallowed by their Madison zoning designation as RSPM — Research Park Specialized Manufacturing District — but both have strict policies and building and design committees that prohibit the characteristic metallic siding of warehouses and fulfillment facilities. The Middleton Industrial & Research Park, as it has developed so far, does not have this inhibition. Possibly, in one of its other phases, there will be a more stringent control over types of buildings erected. When Agracetus came to town, the Golf Park development was the only option and almost any building style could fit into its scheme.

Golf Park is a three-phase development with its own borders on the MIRP site plan, as is the "Research/Business Center." They are linked by anticipated roads and service systems. To date, Golf Park is the only developed part of the park, but there is grading and filling being completed in the fourth phase area, which will contain research and business institutions. For the time being, however, MIRP may be the definitive, vertical-paneled cluster of uninspired buildings, but there is certainly no disputing the depth of investment and commitment to expansion that its tenants have made.

"When Agracetus chose Middleton, there were a fair number of other players in the area who also were looking for a place to build their expanding enterprises," Grosse said. "We are definitely impressed with the tenants who followed in the footsteps of Agracetus, such as Graber Industries, Invenex Veterinary Laboratories, Tracor Northern, the Stamp Corporation, Gilson Medical Electronics, the Pleasant Company, National Electrostatic, Metalskil, Radiation Measurements, Interstate Batteries, and Energy Conserving Systems."

Today, there are more than two dozen companies located in Middleton's commercial and industrial park. Together they contribute greatly to the Middleton tax base and provide significant employment. The MIRP has, figuratively and factually, changed the course of Middleton's economy and history.

NORTH OF MADISON, PROSpecting corporations or industries, assembly plants or fulfillment operations will find the Sun Prairie Business Park. The DSI Real Estate Group is the primary developer. In the same way that MIRP needed Agracetus to put it on the map, SPBP found Famous Footwear as a means of attracting others to Sun Prairie.

SPBP's building and zoning codes are not unlike Middleton's. It is certainly not a situation of "Beggars can't be choosers." The tenants of SPBP are heavy hitters in their own leagues. The buildings might be brick-faced and metal-bodied, but their individual square-footage is definitely in the upper five-digit range.

Famous Footwear dominates the park, aided by its own subsidiary Famous Fixtures, which is involved in the design and planning of stores, the manufacture and installation of fixtures. However, there is considerable respect paid to the investment of Sun Prairie Diagnostics, the Trachte Building Systems, Diesel Injection Service, Inc., and the headquarters for Do It Center franchises. Like MIRP, a drive through the curved streets reveals plots growing grass and those growing new buildings that have not reached the point of corporate identification or occupation.

Before moving on to Dane County's ancillary developments, let's identify varying terms of occupancy. Apart from the University Research Park, Gialamas could speak for other private developers when he says, "We are open to negotiate whatever building arrangement the tenant wants. It can be a joint venture, a turnkey set-up, or we will build and lease."

A corporate entity might have its own architect, its own builder, and as long as it conforms to the specific codes of the park, the building can go up. Some of these ventures are spectacularly successful, as in the case of RMT, Inc. in the Old Sauk Trails Park. RMT's building is so simple and graceful in its design that it blends into the hillside. Other buildings may not be so singularly attractive but are not so bland as to be out of synch with the overall plans of the place and its natural environment.

For the developer whose plan is to fill the lots, the key consideration will be that of permanence. Nobody wants a tenant to build a 100,000-square foot facility that is going to be used for a brief time before incurring bankruptcy and non-occupancy. No developer wants to have a large vacant building blemish a park. It only serves to remind people of the risks of business and is emblematic of wasted, unused space and acreage and loss of income.

In the case of the University Research Park, there are the same risks of successful occupancy, but all the property in the park is leased on long-tenancy terms. The University owns its University Science Center, which consists of seven buildings, totalling 110,000 square feet, leasing walled-to-order space for varying tenants. The URP will, however, build to suit for tenants that request it, as long as they adhere to URP codes and policies.

One of URP's more speculative ventures is the leasing of "frontage" acreage to an Illinois realtor, the Oakbrook Corporation, that wanted to build multi-story office buildings. Park West is located on the corner of Whitney Way and Mineral Point Road, the most exposed aspect of the park.

"We are encouraged by the occupancy rate of the first phase," says Greg Hyer, URP's associate director. "It's only been completed for a short time and already the building is nearly three-quarters filled.

"What makes the investment interesting is that it was built without tenant commitment, and one of our conditions was that those who came into Park West would be able to provide specific services to other tenants of the park. A good example is the First Business Bank of Madison, the state's first banking facility specifically devoted to businesses."

URP is being developed in phases, as all the parks are, but what marks it as individually established is that URP's most distant borders are already committed. CUNA Mutual Insurance holds rights to about 50 acres for future development and the Hospital Corporation of America's complex for specialized psycho-physical care, was completed last year. Plus, the university has established the UW-Madison Veterinary Science Research Center. In other words, the URP has the cornerstones of its final development area in place. This also allows income enough to fund future infrastructural development required to finish the western side of the URP.

IF IT APPEARS THAT THIS overview of "park" development in Dane County neglects the government of Dane County, it is no oversight. County administration and legislation actually have very little impact or influence upon the process to date.

There is a Regional Planning Commission that includes all units of government within the county, as well as the county. The Commission works on a contract basis with the county, and the county is represented on the commission by members of its board. "It is the intergovernmental mix that makes the Commission work," says Thomas Smiley, one of the Commission's professional planners. "There can be dual responses and responsibilities, as we find in unincorporated towns that must comply with county zoning regulations. It is a shared responsibility by town and county leadership, and both must agree before a policy is set."

Smiley says that Old Sauk Trails Park was originally reserved for urban development two decades ago but there were no takers. So it went on the rolls, whereupon Gialamas's interest was cultivated. Dane County is sensitive to environmental development. "The DNR has the big stick," says Smiley, and the county has recently decided that it needs to play a more decisive role.

County Exec Rick Phelps called a "Dane County Economic Summit," which summoned more than 100 different people who agreed that the county has a role to play. In late May, the "summit's" findings were coalesced into the formation of the Economic Summit Council to consider a county-wide overview as to the range of approaches.

Currently the county has but one development that might be considered park-like. Located at the general intersection of County Trunk CV, Highway 19 and Interstate 90/94, "Windsor Park" is an unidentified block of different establishments, ranging from the gigantic Walgreen's warehousing complex to Oscar Mayer's printing operations, Capitol Warehousing, a lumber depot and the Clack Corporation.

"The Town of Windsor set the standards and provided the services," says Smiley. The result is currently a hodgepodge of buildings, but there are streets and plots awaiting additional development. It is likely to adapt uniformity later as more development takes place.

IT IS NO SECRET THAT DEVelopers are dreamers, prospectors and visionaries. To say nothing of being gamblers, as they buy land and hope their perceptions of the future hold true.

Two examples of such risk-takers are found in Fitchburg's Business Park and the Madison Corporate Center. At present, the Fitchburg Center has one tenant, the Promega Corp. Its promotional literature indicates long-range plans for a conference center, a research center, a commercial center, plus a "vista" and a "woodland feature." Streets and curbing are laid, and all kinds of promises — a day care center, planning assistance, labor training help, a designed town-square, and "built-in markets" from an adjoining business park — are offered.

When push comes to shove, however, the Fitchburg Business Park is mostly the dream of William Linton and his associates. If there is something symbolic in the frustration found in this development it is in the Fitchburg park's letterhead: with the cover information the developer introduces the location as Fitchburg, while the bottomline address is the same, but with Madison as the "real" place to send letters and inquiries.

Even further down the dream chain of development is Robert Blettner and his Madison Corporate Center, located on the far east side of the city. The nearest identifiable landmark is the relocated central post office.

"We're developing a unique corporate community surrounded by over 40 acres of park-like conservancy, right in the center of Madison's growing east side," says his company's literature. However, this development is still on the chalk board. There is no opportunity, yet, for casual inspection of the property "bordered by Hwys. 30 and 51 . . . minutes from Interstate 90/94." The Blettner development plan appears to hinge its future on the construction of an interchange at the intersection of Hwy. 51 and Milwaukee Street.

According to its promotional literature, "The Madison Corporate Center worked with Griner Engineering Sciences, Inc., a Tampa-based firm, and committed more than $60,000 to research the urban interchange." Blettner and his colleagues persistently lobby for changing the current "at-grade" intersection to an overpass and a modified cloverleaf.

Meanwhile, Sun Prairie and Middleton have taken up the slack and extended corporate citizenship to several companies and industries. Communities such as Fitchburg, Verona and even Stoughton are beginning to envision the potential for similar commercial development of land within their boundaries. Also, on land that was annexed from the Town of Burke by the City of Madison, a major development in a park-like setting has been initiated by American Family Mutual Insurance Co. This is the 876-acre corporate site just off I-90/94 and Hwy. 51 and includes a 100-acre parcel allocated to the proposed World Dairy Center.

Madison's Industrial Parks

The City of Madison currently identifies eight "industrial areas:" Truax Air Parks East and West, Milwaukee Street Commercial and Industrial Area, the Broadway Industrial Area, Fish Hatchery Industrial Area, West Park Town Commercial Area, University Research Park and Old Sauk Trails Park. Only the latter two could be considered centrally planned parks, however. The others evolved like Topsy — "just growed."

Truax West is better known as International Lane, leading to the airport. Lining the road are generally well-designed brick-stone-wood buildings owned or leased to corporate entities. There is some warehousing close to Truax Field, but it was actually one of the first structures to be in the area. According to the City's 1990 "Community Profile," only about 30 acres is unsold. Truax Air Park East is primarily occupied by Madison Area Technical College's new campus. Hazelton Labs holds about a dozen acres and about the same amount remains unsold. Most is still undeveloped.

The two most extensively filled areas run along South Stoughton Road parallel with U.S. Highway 51 and Greenway Cross area bordered by Syene Road and the South Beltline Highway. The first is actually divided into three distinct areas by the city: Milwaukee Street south and north, and the Broadway Industrial Areas. Generally, the areas cover the land between U.S. Highways 12/18 and north to U.S. 30 and the Soo Line railroad tracks. There are major real estate plots to be developed . . . one as large as 161 acres and another 152 acres. The area is regarded as an individual and lucrative contributor to the commercial and industrial tax base of Madison.

The Fish Hatchery Industrial Area, that is Greenway Cross, is similarly full of taxpayers. There are nearly 200 holdings in the area, and more than 75 percent are sold. A drive through the area reveals few vacant lots and a mix of metal and half-metal buildings of fairly uniform single-story variations. Considerable warehousing and repair facilities exist, with some light industry or assembly operations, as well.

A two-page map of the area contained in the official Madison Community Profile identifies the industrial park locations and gives the best indication of the "gardens of commerce, industry and research that are alive and growing in a major portion of Dane County today."

Through the map, you can see how the unique geography of Greater Madison, thanks to the isthmus and the four lakes, has definitely helped dictate the clustering of different development zones. It also serves to explain in part, at least why there are so few and newly arrived areas dedicated specifically to research and corporate parks like Old Sauk Trails Park and the University Research Park.

University Research Park

WORLD NEWS

National and international news which highlights the UW

Thursday, July 12, 1990

Pitfalls of Research Parks Lead Universities and States to Reassess Their Expectations

By GOLDIE BLUMENSTYK CH 4-B-90

A growing awareness of the political and economic pitfalls that have befallen university research parks is causing many state and university leaders to rethink their expectations and rationales for such enterprises.

State officials, who have been among the chief proponents of research parks, are now seeking different ways to use their universities to promote economic development. And when university leaders seek state help in financing research parks, they are offering legislators and taxpayers more realistic assessments of the costs and length of time needed to make a park work.

UNIVERSITY OF GEORGIA

Charles B. Knapp: A research park is "a very alluring concept if you've got the land." But in recruiting businesses, it "can be a disadvantage if it's an empty field."

The changing attitude of state officials and increasingly frequent accounts of park failures are prompting university administrators to stay away from bold promises about how parks will help states. At the same time, however, universities remain under political pressure to demonstrate that their research does promote the creation and expansion of businesses.

"We've learned our lesson from a lot of them that started in the early 80's," says John K. Yost, vice-chancellor for research and graduate studies at the University of Nebraska at Lincoln.

Keystone of Governor's Program

Late last year, the university announced plans to create a research park. But no one expects many major corporations to move in. Instead, the university is seeking small local companies or fledgling businesses born out of research sponsored by the university through a $60-million state program. The research initiative, which has already led to the creation of six spin-off companies, is the keystone of Republican Gov. Kay A. Orr's state economic-development program.

A decade ago, state plans were much

Continued on Page 24

Pitfalls of Research Parks
Lead Many Universities and States to Reassess Their Expectations

more ambitious—and, in many cases, much more unrealistic.

When Washington State University and the city of Pullman created a research park in 1982, university and local officials expected a Boeing or Hewlett-Packard to move in and convert the agriculture-dependent region into a high-technology corridor teeming with new jobs.

Zoning and Utilities

The officials are still waiting.

Today, the first and only building in the 147-acre research park is still only partly leased, half to the university itself and the rest to 10 small companies. The developer has gone into bankruptcy, disrupting marketing efforts for the park.

City officials thought all they had to do was put in the zoning and the utilities and put out the welcome mat "and the big-name firms would be here," says John F. Sherman, the Pullman town supervisor. "I think we all had grandiose dreams."

Community leaders, who estimate the city has spent over $500,000 in the past eight years to promote the park, say the experience taught them a lesson: Announcing the creation of research parks is easy and politically popular, but making them work can be difficult and politically divisive.

Mr. Yost of Nebraska acknowledges that political motives partly drive his institution's interest in the research park. But he insists Nebraska's project is not part of the national "research-park fad." (*The Chronicle*, June 27.) Instead, he says, the park is a natural outgrowth of the university's efforts to become a more useful agent for state economic development.

He says his university waited to create the research park until after the institution had already improved its research capabilities and developed the expertise to convert that research into commercial use.

That same thinking may affect research-park proposals at the University of Georgia. Charles B. Knapp, the university president, is so wary of research-park hype that he says his institution may defer creating a research park or forgo one altogether.

The University of Georgia, working with the state's five other research universities, recently concluded a study suggesting that the institutions improve their research strengths before assuming the expense of developing a research park.

Universities can assist state economic development, the study suggests, by other efforts—such as developing a statewide data base that shows what equipment and faculty expertise exist on various campuses and creating a uniform procedure for licensing and commercializing research.

Mr. Knapp has taken the advice to heart. A research park is "a very alluring concept if you've got the land," he says. But in recruiting new businesses, he notes, it "can be a disadvantage if it's an empty field."

Some Parks Are Thriving

The potential for failure has hardly soured all politicians and university officials on the economic-development promise of research parks. During the past nine months, in fact, several universities, including the University of Virginia and Pennsylvania State University, have announced plans for research parks.

Some research parks begun in the 1980's, including one adjacent to the University of Central Florida, are thriving.

But the shaky success rate of research parks around the country is starting to sink in with policy makers.

"These are not *the* answer," says James D. Morrison, associate vice-president for research at the University of New Hampshire and an avid follower of research-park trends. "This is not a technological free lunch."

In Connecticut, lawmakers and university officials have learned that lesson the hard way. When the University of Connecticut started its Connecticut Technology Park in 1983, state officials were promised that the park would boost the regional business climate without costing the state any money.

But the project quickly stalled because of administrative delays, the insistence of the local government that no industrial development begin until roads were built to handle traffic, and disputes with the private developer over who should pay for those roads.

'Missed Opportunities'

In 1988, frustrated state lawmakers agreed to spend $2.7-million to build some of the roads, and the General Assembly pledged another $4.2-million in state funds this year to complete the road network and satisfy local officials. The state has also provided the university's park-development corporation about $590,000 in grants for its salaries and other costs.

State Rep. Jonathan W. Pelto says the delays cost the park "tremendous numbers of missed opportunities." Although he still predicts success for the park, he says he now realizes it won't spur "the ultimate economic boom for northeastern Connecticut."

Even with the new state money to complete the roads, the research park could remain stalled because the developer and university's non-profit development arm are suing each other over park issues.

The university's president, John T. Casteen, III, says with the benefit of hindsight that the university erred when it promised to develop the park without state money. The mistake was compounded, he says, because "there was not the political will power" to go back for money as soon as it became clear that the lack of roads would leave it stalled.

Up-front government support, however, is no assurance of success, either. The University of Delaware, for example, has spent about $220,000 of its own money and another $1.3-million in state and federal grants to develop a research park at its Lewes campus on the Delaware Bay.

University officials had hoped that the institution's marine-sciences center there would attract research companies to help diversify the area's tourism-based economy. In eight years the park has had no takers. University trustees decided recently to re-evaluate their plans.

Even where research parks get off the ground, they may not be as helpful to the state economy as many people hoped. Harvey A. Goldstein and Michael I. Luger, both professors of city and regional planning at the University of North Carolina at Chapel Hill, documented that fact in a study this year.

The study, which includes 116 research parks now in existence in 44 states, found that a majority of the new jobs created by research-park companies go to well-educated white men, not to women or minority workers.

The report recommends that state and local governments consider alternatives to research parks, such as state-financed organizations that help businesses use technology developed by university researchers.

One such organization is Virginia's Center for Innovative Technology, a four-year-old agency that monitors research at Virginia's public and private universities and serves businesses looking to commercialize such research: The center also can use its state financing to subsidize ventures.

In essence, says its director, Linwood A. Holton, Jr., "it is a research park without the real estate."

While Mr. Holton, a former Virginia Governor, notes that the concept may not seem as sexy as a research park to some politicians, it does have political appeal because it allows the state to spread the benefits of university research to regions without universities.

Mr. Goldstein calls the emergence of such centers "a healthy trend," and a welcome sign that some universities and governments are considering economic-development strategies that do not rely so heavily on costly research parks.

If university and government leaders aren't doing that yet, he predicts, "they will be, in the next several years." ■

As Assessment Draws New Converts, Backers Gather to Ask 'What Works?'

By GOLDIE BLUMENSTYK
and DENISE K. MAGNER

CH 7-11-90 WASHINGTON

As the movement to assess student learning continues to win converts, proponents are striving to show that assessment should not be an end in itself but can be used to improve what goes on in college classrooms.

Eight in ten colleges and universities report they have some sort of assessment activity under way, according to early findings from "Campus Trends, 1990," a survey conducted annually by the American Council on Education. About 85 per cent said they were using assessment to evaluate their academic programs or curricula.

But the message at the fifth annual conference on Assessment in Higher Education, where the survey findings were presented, was that campuses must use the data they are gathering about students to improve teaching and learning. More than 1,400 administrators, professors, and state officials gathered here for the meeting, which was sponsored by the American Association for Higher Education.

In past years, assessment practitioners sought to help campus officials deal with such problems as how to get started and how to win over faculty members to the idea, said Barbara Wright, director of the A.A.H.E. Assessment Forum, which organized the meeting.

"Some colleges are still at this stage," Ms. Wright said. "But lots of others are asking different questions. There's a much heavier focus now on what works and what doesn't, and how to use assessment to improve education."

The assessment movement, as its proponents call it, has become more sophisticated, she and other observers at the conference said. More and more institutions are creating new positions in their administrations for "directors of assessment." In addition, more campuses are developing their own assessment tools rather than relying solely on standardized tests.

While 8 in 10 colleges report they are doing something with assessment, only a third of the institutions in another survey said they were operating a comprehensive program to measure student learning and development.

Preliminary results of the survey—the first to take an in-depth look at campus programs—were released at the conference. The survey was conducted by the American Council on Education and Winthrop College, and a report on it is expected in the fall.

Questionnaires were sent to 460 institutions, ranging from research universities to community colleges. Nearly 80 per cent responded.

Of the institutions with assessment programs, 94 per cent said they were evaluating basic skills, 67 per cent were assessing general education and liberal studies, and 62 per cent were measuring students' progress in their majors.

Just over 80 per cent of the institutions with assessment programs were using commercially developed tests to assess basic skills, while 52 per cent also were designing their own exams to measure such skills.

In measuring student progress in general-education studies, such as the humanities and natural sciences, 38 per cent of the campuses said they were using standardized tests and 24 per cent were using performance assessments that require students to demonstrate and

Wariness Dampens 1980's Craze for Building University-Sponsored Technology Parks

University Research Park

ChrHiEd 6/27/90

By KAREN GRASSMUCK

A new decade has ushered in a growing wariness among universities that have either established or are considering building technology and research parks. Many of those that created parks during the 1980's are finding their development slow and tedious going, if not downright discouraging.

While no universities appear to be closing their parks or canceling plans to establish new ones, "there's a lot of concern," says Chris Boettcher, executive director of the Association of University Related Research Parks, a professional group that represents 103 of the estimated 130 research parks affiliated with American universities.

A record number of universities established parks over the past decade, hoping that patenting their professors' discoveries and building seed companies around their research would provide new sources of revenue. But universities are finding that coming up with the formula for a successful park is "going to be a lot harder than they expected," Mr. Boettcher says. Some examples of the hardships they encounter:

- The University of Colorado at Boulder Research Park scored a major coup when Denver's USWest, a telecommunications company that provides services to 14 western states, agreed to open its new research and development subsidiary, Advanced Technology, in the park. But developers seeking to construct other buildings in the park, which was established in 1987, have encountered difficulties getting loans from banks, many of which are newly conservative in the wake of the savings-and-loan debacle.
- Harvard University has recently spun off four companies, all in the Boston area, based on research at its medical school. But "the hard work has just begun," says Stephen P. Atkinson, director of the Office of Technology Licensing and Industry at Harvard. Mr. Atkinson cites the difficulties of recruiting staff for the companies. "They want to know about health plans, financial benefits, and the company's stability," he says. Harvard does not have its own research park; it tries to develop companies in the Boston area that use the results of research conducted at the university.
- New Haven's Science Park, which opened in 1983 and is affiliated with Yale University, is being criticized for not living up to some of its goals: namely, revitalizing its inner-city-neighborhood location and solving the area's unemployment problem. Despite a core of 170 new-technology start-up companies that the park has attracted, most of the 1,200 jobs the tenants have provided have been filled by skilled high-technology workers, instead of by local people, many of whom are members of minority groups and unskilled, according to newspaper reports.

A Hard Road to Success

Even those who make a go of it find success doesn't come easily. "Sometimes the toughest thing is figuring out when *not* to throw struggling companies a lifesaver," observes Thomas L. Churchwell, vice-president at ARCH Development Corporation, the University of Chicago's tech-transfer venture (see accompanying story).

The fortunes of many research and technology parks are closely linked to the nation's economy. The tightening of bank credit following the savings-and-loan crisis has affected many research parks. Developers sign contracts with universities to construct buildings in the parks only to find it increasingly difficult to obtain financing from lenders.

Slowdowns in Real Estate

Slowdowns in the commercial real-estate industry, a market that became saturated in the late 1980's, have also crippled park development in many locations, notably Arizona, Colorado, and Texas.

In addition, university officials say they have encountered competition among parks seeking to attract tenants for existing facilities.

Roughly 95 research parks were created in the 1980's, while fewer than 20 were built in the 1970's, according to data compiled by the Association of University Related Research Parks.

But recently the A.U.R.R.P. has recorded a decline in the number of universities setting up parks. The organization estimates that universities are now establishing research parks at a rate of about five a year, compared with the 15 formed in the peak year of 1986.

Mr. Boettcher and other university technology-park watchers attribute the cooling down in many cases to "unrealistic expectations" on the part of university and government officials who want immediate results. Moreover, while the parks still show their original promise as long-term sources of revenue for universities, short-term problems are numerous. That was the conclusion of a gathering in Chicago last month billed as the World Conference of Research and Science Parks.

Other concerns, possibly more troubling, are fueling doubts among university officials about the parks' long-term viability.

Little Support from the Top

At some universities, officials wonder whether research parks harmonize with traditional academic missions of promoting knowledge and new ideas without regard to the ideas' marketability or profitability. Some technology-transfer managers say that as a result they get little support from top university officials for their work.

"I'm out there on my own," says one research-park official at an Eastern university who asked not to be identified. "The president doesn't like this stuff. The provost doesn't like it, either."

The University of California at Berkeley recently completed a study on whether to establish a research park on a 100-acre property it owns in Richmond, Cal., on the San Francisco Bay. But the project has been placed on hold, in part because faculty members expressed concern about accepting commercial sponsorship for research, says J. Kevin Hufferd, research-center project coordinator at Berkeley. "We have a good site," Mr. Hufferd says. "And we have an undertapped, technology-generating institution. But one of the key factors in determining whether we will start a research park is faculty support."

Other universities are finding that persuading professors to aid in the successful commercialization of their ideas presents other kinds of problems.

Francis P. Hession, manager for advanced technology at the State University of New York at Stony Brook, says most of the university's faculty members are too focused on publishing their research findings in academic journals to be interested in exploring possible commercial applications of their research. Other technology officials say the professors are uncomfortable about dealing with the commercial marketplace, a foreign world to many of them.

Starting new companies is a dicey proposition under the best of circumstances. University technology officials believe that 80 to 90 per cent of start-up companies fail in the United States each year.

In addition, the "business incubator" concept used by many university-research parks has met with increasing skepticism from some quarters lately.

"We have an undertapped institution. But one of the key factors in determining whether we will start a research park is faculty support."

A study conducted for the accounting firm Coopers & Lybrand, for example, suggests that fledgling companies that locate in "business incubators," including research parks, find that their experience, while generally positive, is not as good as it could be. In the study, 332 companies in 29 states said they rated the quality of their technology-park experience as a 3.3 on a scale of 5, "leaving plenty of room for improvement," according to a newsletter published by Coopers & Lybrand.

Another accounting firm, KPMG Peat Marwick, suggested in a newsletter last year that the rush to revitalize local economies through high-technology start-ups associated with business incubators and research parks might be ill-advised if not accompanied by a well-thought-out plan. The newsletter cautioned that substantial investments in such parks might not always be "required or appropriate."

Some Successes

Amid the doubts and slowdowns, a few parks, especially those that have been around for a while, have been highly successful.

Among them is North Carolina's Research Triangle Park. Founded in 1959 as a joint effort of local government officials and several universities, today it is home to 54 companies with 32,000 employees. Stanford Research Park, opened by Stanford University in 1951 as an industrial park, catapulted to success on the decision by William Hewlett and David Packard to locate their growing computer company there in 1959.

Some universities have hit upon the strategy of positioning their research parks as specialists in certain types of technology. The University of Iowa's Oakdale Research Park, established last year, is focusing on developments in pharmaceuticals, biotechnology, and medical sciences.

Aggressive marketing and promotion efforts can pay off. Iowa State University's marketing efforts have drawn 17 companies to its 200-acre park, which opened in 1987. Part of the reason may be that the park offers free business- and marketing-consulting services to its tenants.

Deep Pockets, Patient Money

The Iowa State University Foundation, a separate, not-for-profit corporation that runs the park, "is convinced that a research park requires very deep pockets and very patient money" to be successful, says Leonard C. Goldman, president of the Iowa State University Research Park Corporation. Mr. Goldman says the foundation "is not expecting to see profits—or to even break even—for 15 years."

University research parks often make the mistake of trying to attract tenants without offering them a full menu of services vital to start-up companies, he says, citing such examples as advice from business consultants, assistance in obtaining capital, and marketing help. To be successful, Mr. Goldman says, university research-park managers "have to be as comfortable in a corporate boardroom as they might be in a faculty lounge."

"All of us are struggling," he says. "It is a constant battle to maintain fiscal integrity." ■

Next: Disappointments with research parks are causing some states and cities to consider alternative strategies for using universities to promote economic development.

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 9/6/89

CONTACT: John R. Devereux (608) 263-8970, John Wiley (608) 262-1044

UW GENETICS COMPUTER GROUP TO GO PRIVATE, SET UP SHOP IN RESEARCH PARK

MADISON--The University of Wisconsin-Madison's Genetics Computer Group (GCG), an arm of the University's Biotechnology Center that produces and licenses computer software for biologists, plans to leave the University and form a private corporation, it was announced today.

The move, contingent upon Board of Regents approval, is scheduled to take place Nov. 1. It is being made because the Genetics Computer Group has become a substantial money-making operation and has, in many ways, outgrown its original academic mission, said John R. Devereux, a founder and director of GCG.

"It's a new ballgame for us," said Devereux. "But given the choices we had, the commercial route seemed most appropriate and would give more opportunities for the Genetics Computer Group to expand and flourish."

Begun as a one-person operation in 1982 in the lab of pioneering geneticist Oliver Smithies, Genetics Computer Group has grown to become an enterprise generating $700,000 a year through computer software licensing and support agreements.

"We had built something which essentially was a commercial service and it had expanded to the point where it was competing with companies in the private sector," Devereux said.

In an interview, Devereux said plans call for GCG to sever all formal ties with the University and to begin business operations in the University Research Park.

-more-

The plan worked out for the transfer calls for shifting software licenses and subscriptions to the new corporation which would assume the obligation to update and support the licensed software.

Outstanding accounts receivable, totalling nearly $221,000, will remain the property of the University.

The agreement requires Board of Regents approval and will be taken up Thursday (Sept. 7) by the Regents Business and Finance Committee.

Graduate School Dean John Wiley said the planned move is in the best interest of all concerned parties and the mechanics of the move will become a blueprint for future spinoffs.

"We're breaking new ground. This was done very carefully as a precedent-setting move and it's the kind of thing that legislators, the governor and the business community have been encouraging us to do," Wiley said.

Five full-time GCG employees will leave UW-Madison with Devereux and will be employed by the new corporation.

The software packages produced by GCG enable computers to analyze, map, compare and sort the masses of genetic information emanating from the world's biology laboratories.

The computer, said Devereux, has become an indispensable tool for the biologist who must contend with an ever-expanding store of genetic knowledge. Much of that knowledge is disorganized and fragmented, a problem that can be remedied by computers driven by GCG software.

The software produced by GCG has been described as the "gold standard for sequence analysis," a reference to its ability to quickly analyze and identify sequences of the components of DNA, the genetic material of nearly all living things.

Genetics Computer Group software is now in use by more than 12,000

scientists worldwide, an estimated 35 percent of the world market, Devereux said.

Computers and the software codes that drive them will continue to grow in importance, Devereux said, especially as the Human Genome Project, biology's megaproject to map and sequence the human genome, gets underway.

That effort is aimed at pinpointing the exact sites of the genes of the 24 human chromosomes and determining the linear order of the estimated three billion chemical building blocks that make up the human genetic material.

The Human Genome Project, Devereux said, will sharply increase the demand for the software needed to sequence and analyze genetic information. He said he expects that huge project to spur joint research initiatives between the new company and UW-Madison.

"I'm optimistic we'll be able to collaborate with the University and those collaborations are likely to be of a very substantial magnitude," said Devereux.

###

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Univ. Research Park

Release: Immediately 4/18/89

CONTACT: Wayne McGown (608) 263-8150, Judd Missner (312) 675-8877

CONSTRUCTION BEGINS ON NEWEST, LARGEST RESEARCH PARK BUILDING

MADISON--Construction of a four-story, 55,000-square-foot professional office building is under way in University Research Park, Wayne McGown, special assistant to the chancellor, announced Tuesday (April 18)).

The building, to be known as Park West, is being built by Milico Development Corp. of Chicago, Ill., on the corner of Mineral Point Rd. and Whitney Way in the 325-acre park.

It is scheduled for completion late this fall and will be ready for occupancy by Dec. 1, according to Milico President Judd Missner.

When completed, the building will be the largest in the park and will house such things as corporate headquarters, accounting firms, law offices, and other enterprises offering support services to Research Park tenants and the Madison community, McGown said.

UW-Madison Chancellor Donna E. Shalala, who chairs the Research Park Board of Trustees, said the Park West development will meet an important research park need and mirrors a national trend in research park development.

"This project is comparable to those at other university-affiliated research parks," Shalala said. "It will meet a long-standing goal to provide high-quality space for corporate outposts and firms that can provide needed services for the park's research-oriented tenants."

Judd Missner, president of Milico, said his company planned on marketing the building to prospective tenants in Madison, Chicago and across the country.

-more-

Add 1--Research Park

"We took a long, hard look at the Madison market and we feel we've settled on the best location in the community," Missner said. "We see no comparable development in the Madison market."

Milico has been in the development and construction business in the greater Chicago area for more than 40 years, Missner said. The company has developed in excess of $50 million in office and industrial projects and its client list includes such companies as Abbot Laboratories, Borg Warner, Motorola, Transamerica, Westinghouse, Baxter and American Airlines.

The Park West development will occupy five acres in the park. The building will be constructed of architectural pre-cast concrete and will include a continuous bank of energy-efficient glass windows. The building also will have a glass-canopied entrance and marble lobby.

In addition, the building will have a meeting and conference facility, lunch room and storage for tenants, according to Missner.

The total cost of the development is estimated at $4 million.

The building was designed by the architectural firm of Friedman, Dobrin and Associates of Northbrook, Ill. Construction Concepts, Inc. of Madison will serve as general contractor.

Mark Winter of the Madison-based Oakbrook Corp. is the leasing agent for the project.

###

-- Terry Devitt (608) 262-8282

=> MARY L.

MGE Madison Gas and Electric

133 S. Blair Street
P.O. Box 1231
Madison, Wisconsin 53701 - 1231

News

Contact: Larry Russell
(608) 252-7086

MGE Selects Innovation Center Manager

UW. Research Park

Madison, Wis., March 16, 1989--Venture Investors of Wisconsin (VIW), the Madison-based venture capital firm, has been selected to manage the Madison Gas and Electric Co. (MGE) Innovation Center located in the University of Wisconsin Research Park in Madison.

Management duties will include providing on-site tenant support and critical one-on-one management assistance to start-up technology-based firms.

VIW is one of only two venture capital firms in Wisconsin to receive funds from the State of Wisconsin Investment Board. Total funding for VIW is currently at nearly $6 million with sources from MGE and 18 other institutional investors. VIW will occupy over 1,400 square feet in the new facility.

The MGE Innovation Center, the subject of recent coverage in The Wall Street Journal, is a unique facility that will provide low-cost space, equipment and critical management support to early-stage firms locating in the University of Wisconsin Research Park. The Innovation Center is being established through a $400,000 commitment by MGE. The center will open May 1, 1989.

# # #

VENTURE INVESTORS
OF WISCONSIN, INC.

Roth S. Schleck
Chairman
Roger H. Ganser
President & C.E.O.
100 State Street
Madison, WI 53703
608/256-8185
227 S. Walnut Street
P.O. Box 1292
Appleton, WI 54912-1292
414/734-4094

PRESS RELEASE

Contact: Roger H. Ganser
256-8185

"Venture Investors of Wisconsin's (VIW) role as manager or the new MG&E Innovation Center in the University Research Park continues our emphasis on early stage, high growth companies that have a strong linkage to the University of Wisconsin", according to VIW president and CEO Roger H. Ganser. The late Bob Marshall, director of the University Industry Research Program (UIR), and former Chancellor Shain worked closely with VIW in developing a mutually beneficial relationship between VIW and UW. Products of that relationship include the participation of a number of UW professors on VIW's Technology Application and Investment Committees and VIW's recent co-sponsoring of the BioTechnology Transfer Seminar on campus. Ganser also points out that VIW's history of value added investing, where the venture capitalist provides nuturing and experienced talent (in addition to money) to a young company, makes their role with the MG&E Innovation Center a natural extension of their operating philosophy.

VIW was formed in 1982 with one million dollars from a handful of local institutional investors. Today, the corporation has a capital base of just under six million dollars, nineteen shareholders and seven current portfolio companies located throughout Wisconsin. According to Ganser, the last six months has been the most active period in the Corporation's history. It participated in the sale of its first investment, Office Solutions Inc., for a handsome return and made investments in three new firms. Ganser credits the Corporation's growth and success to the strong value added philosophy of its shareholders. He pointed out that VIW shareholders play a very active role in the organization which, when combined with the talent from UW, substantially increases the venture firms capabilities.

MGE Madison Gas and Electric

133 S. Blair Street
P.O. Box 1231
Madison, Wisconsin 53701 - 1231

News

Contact: Steve R. Kraus
(608) 252-7907

Area High-Tech Week Slated for Sept. 19-23

Madison, Wis., ~~Nov.~~ Sept. 15, 1988--High-Technology Week for Greater Madison and Dane County begins with a program and grand opening of the Science Center at the University Research Park on Monday, Sept. 19. Madison Mayor F. Joseph Sensenbrenner and County Executive Richard Phelps will issue proclamations designating the week of Sept. 19-23 as High-Technology Week for Madison and Dane County. University of Wisconsin - Madison Chancellor Donna E. Shalala, who is also president of the board of trustees of the University of Wisconsin Research Park, Inc., will comment on the role the university is taking in the development of the area as a high-tech center for the county.

An open house at the University Science Center, designed to attract small, rapidly growing research companies that require specialized space on a limited budget, will follow the program. Current tenants at the science center include Warzyn Engineering, Persoft, Hazleton Laboratories, Medical Media Associates, C&G Technologies, Xylan, Inc. and Grassland Media.

Donald J. Helfrecht, chairman of Madison Gas and Electric Company (MGE), announced a schedule of events planned for High-Tech Week and commented that MGE, "in addition to supplying competitively priced, reliable natural gas and electric service, is committing substantial staff time and financial resources to economic development for its service area."

more ...

Helfrecht notes that many of the most rapidly growing firms in the area are producing high-technology products and services. Late in 1987, MGE and the city of Madison compiled a directory of area high-tech firms. "Over 200 such companies are today engaged in software and other computer-related products and services, biotechnology and medical/biomedical research and microelectronics," Helfrecht pointed out.

"The number of high-tech firms in the area is growing at about 7% per year," Helfrecht said. "While these firms currently account for about 3% of total employment, their employment is increasing more than 8.5% per year," he noted.

Activities scheduled for High-Tech Week include the second annual Statewide Small Business Innovation Research (SBIR) Conference on Wednesday, Sept. 21, at the Holiday Inn Southeast. An awards ceremony honoring 12 state businesses who were recipients of $1.7 million in SBIR grants last year will be held Tuesday evening preceding the conference.

A high-tech business panel will be featured at a luncheon for business and community leaders and elected officials in Middleton on Thursday. Both established high-tech companies and emerging companies in the Middleton area will participate in a panel discussion of the formation of their companies, what attracted them to the area, and what can be done to continue to encourage the formation and growth of high-tech businesses in the area. Participating in the discussion will be Bill Buffo, Tracor Northern; Jeffrey Buchholz, Micro-Optics Technologies; Dr. Deborah McCown, Knight Hollow Nursery; and Dr. Winston Brill, Agracetus.

more ...

The final High-Tech Week activity will be a discussion of business applications of University of Wisconsin - Madison research led by Business School Dean James Hickman. Participating in the discussion will be Dr. Steven Kornguth, associate director of the University Industry Research Program, and Dr. Leon Shohet, chair of the Department of Electrical and Computer Engineering.

# # #

HAZLETON LABORATORIES AMERICA, INC.
3301 KINSMAN BLVD. • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 703956 HAZRAL MDS UD

Introducing . . . Hazleton Environmental Services
September 19, 1988

Hazleton Laboratories America, Inc. has provided analytical services to the chemical, pharmaceutical, and nutritional industries for over 40 years and is recognized as the worldwide leader in contract research. The major companies in each of these industries utilize Hazleton's expertise to aid in the product development and regulatory approval process associated with the development, introduction, and manufacturing of their products.

The increased awareness of environmental issues by both governmental agencies and the general public has expanded the need for dependable analytical services to aid in researching these concerns and alleviating possible problems. Hazleton, a subsidiary of Corning Glass Works, recognizes the need for increased analytical capacity in this area and is in the forefront of expansion to meet the requirements of the complex and dynamic environmental services market. An important step in this expansion is the opening of a state-of-the-art chemistry facility in the University of Wisconsin Research Park in Madison, Wisconsin. This facility, known as Hazleton Environmental Services, works in conjunction with staff located at a facility in Hackensack, New Jersey.

Hazleton operates a total of 14 facilities, with units located in North America, Europe, and Asia. Over 2,400 scientists and staff members in these facilities share resources and expertise to ensure the accurate and prompt service. Hazleton is committed to providing the analytical services needed to protect humans and the environment.

MARY L. —
RES. PK. FILES.
L. University Research Park

University Research Park
University of Wisconsin-Madison

UNIVERSITY SCIENCE CENTER COMPANIES

SEPTEMBER, 1988

HAZLETON LABORATORIES AMERICA, INC.

Hazleton's analytical environmental chemistry operations are located here. The company is principally engaged in providing laboratory services to the pharmaceutical, chemical and food industries. Hazleton is a subsidiary of Corning Glass, New York and has operations in Virginia, New Jersey, Florida, France and England.

CONTACT: Mr. Robert Conway, 608/241-4471

MEDICAL MEDIA ASSOCIATES, INC.

Medical Media specializes in medical communications, marketing and educational services to hospitals, clinics, voluntary and government health organizations and medical equipment manufacturers around the country.

CONTACT: Ms. Edith Oberly, 608/231-1352

XYLAN, INC.

Xylan is a research and development company working on the development of enzyme and fermentation technologies for converting agricultural and industrial wastes to livestock feed, dietary fiber and chemical feedstocks.

CONTACT: Mr. George Tyson, 608/238-4600

CG TECHNOLOGIES, INC.

CG Technologies is an environmental microscopy laboratory providing analytical services which include building material analysis, air sampling and monitoring to clients throughout the United States.

CONTACT: Ms. Carol Gannon, 608/238-7811

-continued on reverse side-

GRASSLAND MEDIA, INC.

Grassland Media offers complete video production services, including scriptwriting, production, direction and post-production, to business and industrial clients, agencies, associations and government.

CONTACT: Mr. Stuart Stroup, 608/274-7990

WARZYN ENGINEERING, INC.

Warzyn is a environmental, civil and geotechnical engineering firm with their corporate headquarters in the Park. Their geotechnical laboratory is located in the Science Center. Warzyn also has offices in Milwaukee, Minneapolis, Chicago and Detroit.

CONTACT: Mr. Bruce Weber, 608/273-0440

uw news

Univ Research Park

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 6/14/88

CONTACT: Greg Hyer (608) 262-4023, George Tyson (608) 238-3300

UNIVERSITY RESEARCH PARK GETS NEW TENANT

MADISON--The University Research Park announced Tuesday (June 14) that Xylan, Inc., a small research and development company, will become the park's newest tenant.

Xylan will join Hazleton Laboratories America and Medical Media Associates in the University Science Center, a planned series of seven 10,000-square-foot buildings, the first of which is scheduled to be completed this month.

The company now employs four people and plans to add six more workers within the next 12 months, according to Xylan President George Tyson.

Xylan is working on the development of enzyme and fermentation technologies for converting agricultural and industrial wastes to livestock feed, dietary fiber and chemical feedstocks.

In addition, the company has a State Technology Development Fund grant and is collaborating with UW-Madison chemical engineering faculty members to study the potential for converting agricultural and industrial wastes into a road salt substitute.

###

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Uni Research Park

Release: Immediately 6/14/88

CONTACT: Tad B. Pinkerton (608) 262-8874

$20,000 WISCONSIN BELL GIFT TO BOOST RESEARCH PARK

MADISON--The University of Wisconsin-Madison has received an unrestricted $20,000 grant from Wisconsin Bell to assist in the development of the University Research Park, university officials said Tuesday (June 14).

The grant will be used by the university to help establish a fiber optic computer communications link between the campus and the park.

Tad B. Pinkerton, UW-Madison Director of Information Technology, said the computer link will allow tenants of the park to tap the university's extensive computer network and communicate more easily with UW-Madison faculty.

UW-Madison Chancellor Donna E. Shalala expressed appreciation for the Wisconsin Bell grant, saying the support and interest of the Wisconsin business community is vital to the success of the park.

###

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

University Research Park

Release: Immediately 05/31/88

CONTACT: Greg Hyer (608) 262-4023, Edith T. Oberley (608) 833-8499

UW RESEARCH PARK ANNOUNCES NEW TENANT

MADISON--Medical Media Associates, Inc., a medical communications firm, will become a tenant in the University of Wisconsin-Madison's Research Park on the city's west side, park planners announced today (May 31).

Medical Media, which employs 10 people, specializes in medical communications, marketing and educational services to hospitals, clinics, voluntary and government health organizations, professional medical organizations and medical equipment manufacturers around the country.

The company will join Hazleton Laboratories America, Inc. as tenants in the University Science Center, a planned series of seven buildings to be situated on an 11-acre parcel adjacent to Science Drive.

Two of the University Science Center buildings are under construction. One of the identical 10,000-square-foot buildings is scheduled for completion in September and will house Hazleton's environmental chemistry laboratory. Medical Media will occupy a portion of the second building which is to be finished in June.

"Medical Media is an exciting and rapidly growing firm. We're pleased to have them in the Research Park," said Greg Hyer, associate director of University Research Park, Inc.

Other companies now or soon to be in the park include Warzyn Engineering, Persoft and Hospital Corporation of America.

###

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 1/28/88

CONTACT: Wayne McGown (608) 263-8150, 238-8670, Jay Noren (608) 263-4163, 255-5417; HCA contact: Meta Gaertnier (615) 320-2613

HCA PSYCHIATRIC COMPANY TO LOCATE IN UNIVERSITY RESEARCH PARK

MADISON--HCA Psychiatric Co., one of the nation's leading psychiatric hospital management firms, announced plans Thursday (Jan. 28) to build a $5.5 million, 62-bed psychiatric treatment and research hospital at University of Wisconsin-Madison's University Research Park.

Park planner Wayne McGown said HCA Psychiatric will lease an 8-acre, commercially zoned parcel just off Odana Road in the southwest corner of the park.

Construction of the one-story, 45,000 square-foot facility will begin in May and is expected to be completed sometime in early 1989, according to Sharon Sidell, HCA Psychiatric assistant vice president for development.

She said the hospital will employ as many as 150 people.

Sidell said the hospital will specialize in in-patient services for children and adolescents and will conduct research aimed at "understanding and more effectively treating a broad spectrum of psychiatric disorders."

UW-Madison Chancellor Donna E. Shalala, who chairs the research park's board of trustees, said HCA Psychiatric is a welcome addition to the park. "HCA will provide a much-needed service in Madison, bring 150 new non-physician jobs to the community, and conduct research that is consistent with the goals and purpose of the park," Shalala said.

Sidell said the Madison area was chosen after a market study showed there

-more-

are few existing in-patient services available here for children and adolescents.

"The area has no short-term in-patient programs in Madison for children or adolescents," Sidell said. "We also feel that while the community already has a wide variety of excellent out-patient mental health services, there is an overall need for in-patient beds, particularly for younger patients."

Jay Noren, UW-Madison vice chancellor at the Center for Health Sciences, said the new hospital will be an asset to Madison.

Noren said there is a need for this kind of facility in Madison, noting that HCA has a very good reputation for developing and running psychiatric facilities around the country. He also said that the Center for Health Sciences may explore some joint research opportunities with HCA.

Sidell said HCA Psychiatric now has a similar facility in the Research Hospital Medical Park in Kansas City, Mo., and has hospitals with active collaborative programs of research at Vanderbilt University in Nashville, Tenn., and the University of South Florida in Tampa.

The company also has a hospital under construction near the University of California-Davis and expects to initiate collaborative research programs there, Sidell said.

HCA Psychiatric Co. is considered a national leader in psychiatric hospital management and owns or manages 50 facilities in 20 states. It is a wholly-owned subsidiary of Hospital Corporation of America, an international health care company based in Nashville.

This is the company's first psychiatric hospital in Wisconsin.

"We're happy to have HCA as a part of the research park," said McGown. "They will bring both a needed service and a valuable research program to the area."

Sidell said the facility will include 2,000 square feet of lab space and will have both wet and dry labs. Research programs, she added, will focus on the biological and social aspects of mental illness as well as the development of alternative care programs for the mentally ill.

###

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Univ. Research Park

Release: Immediately 1/13/88

CONTACT: Wayne McGown (608) 263-8150

HAZLETON LABS TO EXPAND IN UW RESEARCH PARK

MADISON--University Research Park, Inc. Wednesday (Jan. 13) announced that Madison-based Hazleton Laboratories America, Inc. will lease a 10,000-square-foot research facility at UW-Madison's research park on Madison's west side.

Park planner Wayne McGown said Hazleton is planning to expand its environmental chemistry operations in Madison and will lease a one-story research building now under construction in the park.

According to McGown, Hazleton expects to employ 35 people -- scientists and lab technicians -- in the building, one of two identical structures now being constructed on land just south of the Persoft building.

He said both buildings will be completed and ready for occupancy by May 1.

"We think the Hazleton presence in the Research Park is an important step toward the overall goals of the park," McGown said. "We are very pleased to have them expand their operations in the University Research Park."

McGown said the two buildings are among seven planned for a new development to be known as University Science Center. The new project will be situated on an 11-acre parcel adjacent to Science Drive and the Persoft development and brings to 91 acres the amount of land in the park committed to development since 1984.

The buildings are being constructed by Construction Concepts, Inc. of

-more-

Madison.

All of the buildings at the new site will be identical in size and will be suitable for laboratory, office or light assembly activities, McGown added. In addition, the buildings themselves can be subdivided into four separate, wholly-enclosed units for smaller companies or tenants needing less space.

When completed, the two new buildings will be the third and fourth structures in the park. The two other buildings are the Warzyn Engineering building and the recently completed Persoft building.

Hazleton Laboratories America is a subsidiary of Hazleton Laboratories Corp. and has been doing business in Madison since January 1982. Hazleton Laboratories Corp. is a wholly-owned subsidiary of Corning Glass.

Hazleton is principally engaged in providing laboratory services to the pharmaceutical, chemical and food industries. In addition to its Madison laboratories, the company owns facilities in Vienna, Va., as well as operations in France and England.

###

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Univ. Research Park

Release: Immediately 6/25/87

UW-MADISON NEWSBRIEFS

KIPP CORP. PRESIDENT JOINS RESEARCH PARK BOARD

Reed Coleman, president of Madison Kipp Corporation, has been elected to the Board of Trustees of University Research Park, Inc.

Coleman, one of the founders of Wisconsin for Research, Inc., has been an avid promoter of encouraging technology transfer opportunities between the University of Wisconsin and the private sector. The Board of Trustees is responsible for overseeing the development of the university's 325-acre research park and mixed-use development on Madison's west side.

-o- -o- -o-

CLODIUS TO RETURN FOR UW-MADISON SUMMER FORUM LECTURE

Former UW-Madison faculty member and administrator Robert L. Clodius will return to campus to present a summer University Forum lecture Tuesday (June 30) from 7:30-9:30 p.m. in Room 3650 Humanities Building.

Clodius, a faculty member for 28 years, has been president of the National Association of State Universities and Land-Grant Colleges in Washington, D.C. since 1978.

The free public lecture, "Global Sustainability and Food Production," is the third in the eight-part weekly Forum series on environment and development.

For more information, contact the Division of Summer Sessions at (608) 262-2115 or the Institute for Environmental Studies at (608) 263-1796.

-o- -o- -o-

-more-

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 10/30/85

CONTACT: Wayne McGown (608) 262-3677, Edith Borden (608) 266-7531

RESEARCH PARK: A NEW VENTURE TO ATTRACT A NEW KIND OF INDUSTRY

By TERRY DEVITT
University News Service

MADISON--Research parks -- places where computer programs, integrated circuits, industrial enzymes and the other spinoffs of university research are transformed into new businesses and jobs -- have come of age.

Silicon Valley and North Carolina's Research Triangle are two examples of mature research parks that now provide thousands of jobs in a climate of close university-industry interaction.

And, according to the experts, that could become the case with University of Wisconsin-Madison's fledgling research park now under development at the university's old Charmany-Reider research farms on Madison's west side. But success, they quickly add, won't come overnight.

"I hope people will be patient," said Edith Borden, an economic development consultant with the Wisconsin Department of Development. "People think things happened real fast in places like North Carolina because it's established now and there are a lot of companies located there. But it took time. I'd say we're on track here."

Wayne McGown, a special assistant to UW-Madison Chancellor Irving Shain and the person in charge of the park's development, is also counseling patience.

-more-

"One of the most successful parks is North Carolina's research triangle," McGown said. "They built their park in the middle of nowhere, put in streets, water and utilities, and then waited almost six years for their first customer. They're doing well now, but they've been at it for nearly 30 years."

UW-Madison's research park has been patterned after those which use a set of tenant criteria designed to foster university-industry interaction, or to aid state and local economic development goals.

According to McGown, there would be more businesses in the park now if the university were developing the property only as an office or business park.

"We're holding firm on the concept of our tenants meeting the research or high-tech criteria we've developed," he said. "That's where some of the other "research parks" differ from us. The Princeton Forrestal Center, for example, will take anybody. Their main criteria for occupancy is rent-paying ability.

"We don't want to become a real estate development which is only an office park. That's not our goal. Our goal is to foster economic development and new industry ties to the university through our research. At the same time we want to create a long-term endowment for future research at the university."

Tenant restrictions are not unique to research parks, according to Borden. "It's very usual to have restrictions in industrial parks to keep similar kinds of industries together. The research park just has a different set of criteria and I think that's good."

Despite tenant restrictions, the park is getting off to a faster start than some of the other successful parks around the country.

Warzyn Engineering, the first tenant of the UW-Madison park, expects to complete construction and move into its $2 million facility in December. Also viewed as a sign of progress is the announcement that a Madison-based computer software firm named Persoft, in conjunction with Construction Concepts of Madison, will begin construction of a new facility this fall.

McGown expects the next major project in the park to be construction of a multitenant building which, it is hoped, will become a major draw for the park. "This is the kind of space we need to attract tenant firms that are interested in developing a research relationship with the university, but who have neither the time nor the capital to go through the rigors of site selection, designing a building and construction.

"That's what Agracetus wanted when they moved to the area. They wanted a facility with a full wet lab capability and they wanted it right away."

The multitenant facility is likely to be a complex of three buildings encompassing upwards of 250,000 square feet of space. It will provide three kinds of space: wet labs for Agracetus-type operations, dry labs for the development of such things as integrated circuits, and office-like space for companies such as computer software firms.

Other potential tenants, McGown said, include what he termed "outpost operations" for Fortune 500 companies.

"These companies may have knowledge of ongoing research here that suggests the possibility of product development," said McGown. "They could then enter into a relationship with UW-Madison researchers and bring in or hire scientists, to be housed in the multi-tenant facility, who would interact with our people on a day-to-day basis.

"Similarly, we hope to provide incubator space to encourage entrepreneurial development that will encourage 'homegrown economic development.' If these projects take off, there is then the potential for full-blown research and development operations that could benefit the city by providing jobs and a more diverse economic base."

###

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Uni. Research Park

Release: Immediately 3/12/86

CONTACT: Irving Shain (608) 262-9946, Wayne McGown (608) 262-3677,
Tom Towers (414) 226-7179

NORTHWESTERN MUTUAL LIFE TO HELP DEVELOP UW-MADISON RESEARCH PARK

By TERRY DEVITT
University News Service

MADISON--Milwaukee-based Northwestern Mutual Life Insurance Co. will join with University Research Park Inc. to develop a proposed complex of multitenant buildings at University of Wisconsin-Madison's 320-acre research park on Madison's west side.

"We're excited about the prospect of having Northwestern Mutual, a company firmly rooted in Wisconsin, as a partner in this venture," said UW-Madison Chancellor Irving Shain. "Our decision wasn't an easy one. We had some very good proposals come before the park's board of trustees."

Wayne McGown, a special assistant to Shain, said Northwestern Mutual will bring extensive real estate development expertise to the venture. The complex, McGown said, is intended to house small scientific companies or corporate research operations that want to locate near UW-Madison.

Northwestern Mutual has been in business in Milwaukee for nearly 130 years. It is ranked by Best's Insurance Reports as the 10th largest life insurance company in the nation both in assets and total life insurance in force.

"Northwestern Mutual Life is looking forward to this joint venture with University Research Park because we think it will benefit both our policy owners and the state of Wisconsin," said Donald J. Schuenke, Northwestern's

-more-

president and chief executive officer.

"We believe potential tenants will have a great deal of interest in this research complex because of its proximity to the University of Wisconsin-Madison, with its extensive research talent," Schuenke said.

This is the first time Northwestern Mutual Life has participated in a joint venture to develop this particular kind of facility. The company has a large number of investments in a variety of commercial, office and residential real estate developments nationally.

The proposed complex would be situated on a 20-acre site on the corner of the park bordered by Mineral Point Road and Whitney Way.

The project is envisioned as a multi-building complex housing different types of laboratory and office space. The size of the project will be determined over the next few weeks after an intensive marketing effort.

"It will certainly include wet-lab facilities," McGown said. "To our knowledge, we will be one of the first research parks in the country to have this type of space available and that should give us an edge in attracting companies looking for wet-lab space."

Wet-lab facilities provide air and water hook-ups, solid waste disposal and other facilities important to firms doing research in fields such as chemistry or biology, said McGown.

McGown also said the joint venture will contract with Flad and Associates, a Madison area designer and developer, to oversee design and construction of the complex and other joint building projects. It also will join in marketing efforts, McGown said.

Flad has provided development consultation to the research park's planners and the university for the past two years.

University Research Park already has two tenants. Warzyn Engineering recently completed and moved into a $2 million facility. Persoft, a fast-growing computer software firm, selected the research park last fall as the site for its corporate headquarters.

McGown said firms wanting to build in the park still will have the option of constructing their own buildings.

###

-- Terry Devitt (608) 262-8282

Add 2--Joint venture

March 11, 1986

BACKGROUND
NORTHWESTERN MUTUAL
LIFE INSURANCE COMPANY

Milwaukee-based Northwestern Mutual Life Insurance Co., which has joined University Research Park Inc. in development of UW-Madison's 320-acre research park, is one of the nation's oldest and largest insurance companies.

The company was founded in 1857, making it the 18th oldest of more than 2,000 U.S. life insurance companies now in operation. With assets of $18 billion, it ranks as the 10th largest of all U.S. life firms and 62nd among all business enterprises in the country, according to company officials.

Northwestern Mutual has more than 3 million policies in force, totalling $120 billion in insurance.

The company has 111 general agencies in major cities, 293 district agencies across the country and more than 5,000 full-time agents. It also has 14 regional and district real estate offices in the U.S.

In terms of investments, Northwestern Mutual has approximately $12 billion in bonds, mortgage loans, real estate, stocks and other investments in the U.S. and Canada, according to company figures.

###

12/85

#4434I

WisconsinWeek

Univ. Research Park

Research Park Moving Forward

Gleaning ideas from academic settings and turning those ideas into marketable products has always been more art than science. But University Research Park Manager Wayne McGown hopes to change that.

As the Research Park continues to grow, McGown sees opportunities for UW-Madison faculty and staff to use the new development as a springboard for what he calls "home grown" business and industry.

According to McGown, the park's proposed multitenant building -- now envisioned as a three-building complex with about 250,000 square feet of space -- will likely include a business incubator, a place where people with ideas but little capital or business expertise can get the boost they need to launch a successful enterprise.

"The idea is to develop a setting to encourage faculty, staff and other people with viable ideas to take the plunge into the business world," McGown said. "Lack of an appropriate setting and lack of business expertise and support are two of the biggest stumbling blocks encountered by people trying to move their ideas into the marketplace."

The incubator space probably will include both laboratory and office areas, McGown said. The incubator would also help provide access to business consultants as well as secretarial and clerical services.

"Once a business is up and running," McGown said, "the operation would be able to move into its own setting, employ more people, and contribute to the state and local tax base. That incubator space would then be freed up for someone else needing the support we hope to be able to provide."

McGown said he believes UW-Madison faculty and staff will also help lure other tenants to the Research Park.

-more-

"We've presumed that a lot of our faculty have existing relationships and contacts with companies through consulting, research consortia and professional affiliations," McGown said. "Our hope is that as faculty and staff work with these companies and learn of projects that might fit into the scheme of the Research Park, that they would help open the door for us."

Not only would such help speed the development of the Research Park, McGown said, it also would benefit the university community by establishing a greater corporate research presence in Madison and in Wisconsin.

Such a presence has inherent advantages, McGown added. "Those companies are likely to employ UW-Madison graduates, people who might otherwise leave the state. Corporate research operations present opportunities for collaborative research projects and outside funding for campus researchers."

Faculty interaction with companies located in the Research Park will be enhanced by a "state of the art" fiber optic system. The park is being developed with an internal fiber optic system, McGown said, and Wisconsin Bell has said it will establish a "fiber optic highway" between the campus and the park at an early stage in the park's development.

The fiber optic link will consist of cables composed of hair-thin glass fibers that allow for the transmission of very large amounts of data as pulses of light. Because the glass fibers have none of the physical properties of conventional copper cables, they are not affected by lightning strikes or other electrical interference.

It's also possible, according to Office of Information Technology Director Tad Pinkerton, that the fiber optic cables could be connected to the university's data and voice networks, a connection that would open up ties to many university researchers.

-more-

McGown said money earned by the university through development of the park will help establish an endowment for future research. The endowment will be similar to the research endowments earned through patents and the licensing of university research products by the Wisconsin Alumni Research Foundation.

"The endowment potential is very important," McGown said. "If UW-Madison is to continue as one of the leading research universities in the world, it's important that endowments like this be created. The endowment aspect is just one of the many positive things that can come from this effort."

###

--Terry Devitt

For research park story -- artist's rendering of Persoft -- Cutline:

The Persoft Office Building, shown here in an artist's rendering, will be the second resident in UW-Madison's University Research Park.

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Univ. Research Park

Release: Immediately 10/30/85

CONTACT: Wayne McGown (608) 262-3677, Robert Janoski (608) 273-6000,
William Nebel (608) 833-0900

COMPUTER SOFTWARE FIRM JOINS UW-MADISON RESEARCH PARK

MADISON--Persoft, a computer software firm founded by three former University of Wisconsin-Madison computer scientists, has selected the UW-Madison Research Park as the site for its new corporate headquarters.

The three-year-old Madison-based firm, employing 31 people engaged in all aspects of publishing computer software, joins Warzyn Engineering, the park's first tenant, at the 320-acre site on Madison's west side.

"We're hoping the move to the research park will strengthen our existing ties with the university," said Robert Janoski, Persoft chairman and one of the company's founders. "We depend almost entirely on the university for the talent we need to staff our research and development section, and in the past we have worked closely with UW-Madison scientists to develop some of our software products."

According to Wayne McGown, special assistant to UW-Madison Chancellor Irving Shain, the Persoft building will be built by Construction Concepts Inc., a Madison-based commercial general contractor. The building will be owned by D & D Partnership, a private general partnership. Persoft executives say they expect to occupy the 28,700 square foot building by the summer of 1986.

William Nebel, director of marketing for Construction Concepts, said more

-more-

than half of the two-story masonry building will be occupied initially by Persoft. The remaining space, to be let on a short-term basis, will eventually be occupied by the software firm as the company grows. Nebel said Persoft has also retained an option to purchase the building.

"Our company is growing so fast that we've outgrown any facility we've had," said Persoft President Ed Harris. "Our sales have doubled in the past year, and we have in hand national contracts with IBM and Computerland.

"We see ourselves developing products for these companies over the long term. We also have distributors in the United Kingdom, West Germany, Australia and Scandinavia."

According to Harris, Persoft has been among the top 100 computer software developers in the country for the past two years.

Currently, Persoft is engaged in the development of software for the IBM personal computer. The company is now headquartered at 2740 Ski Lane, Madison.

According to Nebel, the design for the Persoft building has been developed by Strang Partners, Inc., a Madison-based architectural and engineering firm. The building, he said, will have a "clean-lined, high tech" design featuring a two-story, skylit lobby and office space which will accommodate a variety of office sizes and configurations.

###

-- Terry Devitt (608) 262-8282

University News Service

19 Bascom Hall
500 Lincoln Drive
Madison, Wisconsin 53706

Oct. 30, 1985

UNIVERSITY RESEARCH PARK UPDATE
UNIVERSITY OF WISCONSIN-MADISON

CONSTRUCTION NEWS

The construction of the building for Warzyn Engineering, the research park's first tenant, is expected to be completed late this year. The $2 million facility will provide 31,000 square feet of space for the company's expanded headquarters.

In addition, Terra Construction of Madison has begun construction of the first streets and sidewalks for the project.

NEW TENANTS

A computer software firm, Persoft, will build its corporate headquarters in the research park, making it the park's second tenant. The three-year old, Madison-based company was founded by three former UW-Madison computer scientists. It currently employs some 30 people in all aspects of publishing computer software.

The Persoft building will be built by Construction Concepts, Inc., a Madison-based commercial general contractor. Persoft expects to be in the 28,700 square foot building by the summer of 1986.

In addition, the University Research Park Corporation is reviewing proposals from private developers for a multitenant building planned for the park. The building, the first of three such multitenant units planned, will provide office and laboratory space. Wayne McGown, special assistant to the chancellor, says the building will be aimed at companies that want to establish a "presence" in the park before making a larger commitment by building there. The facility will provide some shared services and promote close university research contact.

LINKS WITH CAMPUS RESOURCES

With the cooperation of Wisconsin Bell, fiber optic links will be established between the research park and UW-Madison campus. McGown says the links will provide ready access to campus library services and other resources. Wisconsin Bell engineer Chris Butterfield says a lot of study has been done on the link and its potential uses. Wisconsin Bell plans to use the research park's system as a "state of the art" model in telecommunications. The university's Office of Information Technology director, Tad Pinkerton, says some study has been done on the possibility of using the fiber optic link to connect the research park with the university's data and voice networks. This would open up ties with many university researchers.

-more-

Add 1--research park update

CANDELABRA TOWER UPDATE

A candelabra tower is planned on property that the university owns three miles west of the research park, an area known as the Mandt farm. The facility will provide an alternative site for two television transmission towers adjacent to the research park property that will be torn down as part of the park's development.

The new facility will have the capacity to serve all the current Madison television and radio stations, and provide shared service features. Ann Miller of Wisconsin for Research, which is organizing the tower's business venture, says the plan is proceeding with agreements being made with channels 27, 21 and 47 (Channel 47 is a new Madison-area television station which recently received FCC authorization).

Negotiations also are proceeding with local radio stations. Three commercial FM radio stations and one public radio station have expressed interest in relocating their towers to the candelabra. Wisconsin for Research also has reached agreement with Motorola Communications, Inc., to operate the two-way radio portion of the tower.

A number of university scientists may move their research antennas to the site, which may become a new kind of high technology facility -- an antenna farm. Possible fiber optic links to the University Research Park and to the UW-Madison campus make the new tower site attractive for scientists. Some science-oriented additions to the tower could include antennas for weather and wind velocity research. Microwave dishes also could be located on the tower.

Construction of the $3 million candelabra tower is scheduled to begin in late spring of 1986, with completion tentatively set for October 1986. The tower will be 1,422 feet high, which, with the site's elevation, will put it 2,549 feet above sea level. The tower would be 300 feet higher than any existing broadcast tower in Madison, and would considerably extend the transmission range of stations using it.

The California engineering firm of Hammett and Edison, experienced in such candelabra construction, has been hired to build the structure.

FOR MORE INFORMATION

Wayne McGown, special assistant to the chancellor, (608) 262-3677
John Karsten, Terra Construction, (608) 221-3501
Ann Miller, Wisconsin for Research, (608) 258-7070
Chris Butterfield, Wisconsin Bell, (608) 252-2308
Tad Pinkerton, UW-Madison Office of Information Technology, (608) 262-8874
Joe Corry, associate vice chancellor, (608) 262-0641
(Corry is chairman of a subcommittee of the Telecommunications Advisory Committee that is looking at the research park and antenna farm fiber optic connections.)

###

note

From: University of Wisconsin-Madison / University News Service, 19 Bascom Hall, 500 Lincoln Drive, Madison, Wisconsin 53706
Telephone: 608/262-3571

NOTE TO EDITORS AND NEWS DIRECTORS 10/25/85

University, industry and UW-Madison Research Park officials have scheduled a news conference for Wednesday, Oct. 30, at 11 a.m. in the second floor Orientation Center of the International Building of the Credit Union Center, 5810 Mineral Point Road (the round building in the center of the three-building complex). Those scheduled to be present at the news conference include Chancellor Irving Shain, Special Assistant to the Chancellor Wayne McGown, CUNA Mutual Insurance Co. officials, and representatives of business, industry and government.

The conference is being held to apprise the media of recent Research Park developments.

-- Terry Devitt (608) 262-8282

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 9/12/85

CONTACT: Wayne McGown (608) 262-3677

THREE FIRMS BID FOR RESEARCH PARK DEVELOPMENT

MADISON--Three developers, including two Madison-based firms, have submitted proposals to build a complex of multitenant buildings at the University of Wisconsin-Madison's research park on Madison's West Side.

Bidding for the project at a meeting of the University Research Park board of trustees were: the Carley Group of Madison; the Munz Corp., also of Madison; and Denver-based Beta West, a subsidiary of U.S. West.

According to Wayne McGown, special assistant to UW-Madison Chancellor Irving Shain, the multitenant complex will likely consist of three buildings encompassing about 250,000 square feet of space.

At least one of the buildings will have a full wet lab capability, a type of rental space not readily available in Madison, McGown said.

"Each of the developers has expressed a keen interest in the park's future," said McGown. "They've also indicated that the park's proximity to the university will be a key factor in attracting tenants for the new complex."

At the Sept. 4 meeting, Robert Polachek, a well-known Milwaukee real estate expert, urged the board to consider becoming its own developer for the research park, located on the university's old Charmany-Rieder research farms.

While Polachek said a private developer might be the best way to achieve the board's goal of having speculative multitenant space under construction by 1986, he added that the board should not close the door on becoming the developer of future projects in the park.

The proposals are now under review and a recommendation will be made to the park's board of trustees by the end of September, McGown said.

###

-- Terry Devitt (608) 262-8282

University News Service

19 Bascom Hall
500 Lincoln Drive
Madison, Wisconsin 53706

July 18, 1985

UNIVERSITY RESEARCH PARK UPDATE

CONSTRUCTION NEWS

The construction of the Warzyn Engineering building, the Research Park's first tenant, is ahead of schedule thanks to good weather. The $2 million facility will provide 31,000 square feet of space for the company's expanded headquarter's operations. It is scheduled to be completed this fall.

The existing farm buildings on the 300 acre property will be demolished beginning the week of July 22. The sheds will be the razed starting July 22, and the barn will be razed tentatively on July 25. The house will be the last building demolished, as the contracter, Terra Construction of Madison, is using the building as their on-site headquarters.

Terra Construction also reports that they are beginning construction of streets and sidewalks for the complex. On July 18, they began stripping topsoil for street construction, and street cutting will begin around the 24th. Utility construction will begin on the 23rd.

NEW TENANTS

The University Research Park Corporation is now reviewing proposals from private developers for a multi-tenant building now being planned for the Park. The unit, the first of three such units planned, will provide office and laboratory space. Wayne McGown, special assistant to the Chancellor, says the building will be aimed at companies who want to establish a "presence" in the Park before making a larger commitment. The facility will provide some shared services and promote close university research contact.

LINKS WITH CAMPUS RESOURCES UNDERWAY

With the cooperation of Wisconsin Bell, fiber optic links will be established between the Research Park and Madison campus. McGown says the links will provide ready access to campus library services and other resources. Wisconsin Bell Outside Plant Engineer Chris Butterfield says a lot of study has been done on the link and its potential uses. Wisconsin Bell plans to use the Research Park's system as a "state of the art" model in telecommunications. The University's Office of Information Technology Director, Tad Pinkerton, says some study has been done on the possibility of using the fiber optic link to connect the Research Park with the university's data and voice networks. This would open up ties with many university researchers.

-more-

Add 1--Research park update

CANDELABRA TOWER UPDATE

A candelabra tower is planned on property that the university owns three miles west of the research park, an area known as the Mandt farm. The facility will provide an alternative site for two television transmission towers adjacent to the Research Park property that will be torn down as part of the park's development.

The new facility will have the capacity to serve all the current Madison television and radio stations, and provide shared service features. Ann Miller of Wisconsin for Research, which is organizing the tower's business venture, says the plan is proceeding with agreements being made with Channels 27, 47 and 21. (Channel 47 is a new Madison area television station which recently received FCC authorization.) Negotiations are also proceeding with local radio stations. Three commercial FM radio stations and one public radio station have expressed interest in relocating their towers to the candelabra.

A number of university scientists may move their research antennas to the site which may become a new kind of high technology facility--an antenna farm. Fiber optic links to the University Research Park and to the Madison campus make the new tower site attractive for scientists. Some possible science-oriented additions to the tower could include antennas for weather and wind velocity research. Microwave dishes could also be located on the tower.

Construction of the $3 million candelabra is scheduled to begin in late spring of 1986, with completion tentatively set for October of that year. It will be 1,422 feet high, which, with the site's elevation, will put it 2,499 feet above sea level. This extends the current transmission range considerably for those using the tower, as it will be 300 feet higher than any tower in Madison. The California engineering firm of Hammett and Edison, an experienced firm in candelabra construction, has been hired.

###

FOR MORE INFORMATION:

Wayne McGown, special assistant to the Chancellor, (608) 262-3677
John Karsten, Terra Construction, (608) 221-3501
Ann Miller, Wisconsin for Research, (608) 258-7070
Chris Butterfield, Wisconsin Bell, (608) 252-2308
Tad Pinkerton, Director, Office of Information Technology, (608) 262-8874
Joe Corry, Associate Vice Chancellor, (608) 262-0641 (Corry is chairman of a subcommittee of the Telecommunications Advisory Committee looking at the Research Park and antenna farm fiber optic connections.)

Compiled by Karen Walsh, University News Service, (608) 262-0065

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Univ. Research Park

Release: Immediately 12/10/84

CONTACT: Wayne McGown (608) 262-3677

UNIVERSITY RESEARCH PARK TO BE DEDICATED FRIDAY

MADISON--The formal dedication of University Research Park and the ground breaking for the park's first tenant will take place Friday (Dec. 14), University of Wisconsin-Madison officials have announced.

Wisconsin Gov. Anthony Earl will head the list of participants at the dedication ceremonies, scheduled to begin at 11 a.m. in the theater of the CUNA Credit Union Center's International Building, 5810 Mineral Point Road. Other speakers will include Dane County Executive Jonathan Barry, Madison Mayor Joseph Sensenbrenner, UW System President Robert M. O'Neil, and Bruce Weber, president of Warzyn Engineering Inc., the park's first tenant.

UW-Madison Chancellor Irving Shain will act as master of ceremonies.

Following the dedication, the ground breaking will take place at the Warzyn site, located on the Rieder farm property on Mineral Point Road east of Whitney Way. Warzyn, a Madison-based engineering firm that provides services in such areas as groundwater contamination and hazardous waste disposal, plans a 32,000 square-foot building on a four-acre site in the park. It is expected to be completed by October 1985.

Warzyn chose the research park, according to Weber, because of its proximity to UW-Madison, and because the research park provides a proper setting for the company's goal of becoming a national firm.

Shain has called development of the 320-acre research park, on the former Charmany-Rieder experimental farms owned by UW-Madison, "the start of a new

-more-

era of economic vitality" for Madison and the state.

University officials expect research-related organizations to be drawn to the development by the promise of interaction with UW-Madison researchers in such areas as microelectronics, genetic engineering, environmental issues, computers and robotics. The park, if successful, also should provide an effective job market for UW-Madison graduates who wish to stay in the area, officials said.

###

-- Steve Schumacher (608) 262-8289

note

From: University of Wisconsin-Madison / University News Service, 19 Bascom Hall, 500 Lincoln Drive, Madison, Wisconsin 53706
Telephone: 608/262-3571

Uni Research Park

Dec. 10, 1984

NOTE TO EDITORS AND NEWS DIRECTORS:

Dedication ceremonies for University Research Park will held in the International Theater at CUNA's International Building (the round building), at 5810 Mineral Point Road. The entrance to the CUNA parking lot is on Rosa Road off Mineral Point. The lot is behind the building.

An informal reception for the dedication participants and guests will precede the 11 a.m. ceremonies. The reception begins at 10:30 a.m. in the second floor lounge of the building.

The Warzyn ground breaking will begin at about 11:30 a.m. on the building site, at the Rieder farm on the south side of Mineral Point Road east of Whitney Way. There is limited parking at the white farmhouse on the property.

For more information, call Wayne McGown at (608) 262-3677 or University News Service at (608) 262-3571.

Steve Schumacher
University News Service

WISCONSIN

UNIVERSITY RESEARCH PARK TAKING OFF

by Roger Packard, Science Writer
University-Industry
Research Program

Success breeds success – and that's what University of Wisconsin-Madison officials are counting on to make the planned University Research Park fly.

The school's reputation as a top-notch academic and research institution is expected to lure high-tech businesses into setting up shop on 300 acres of university-owned farmland on Madison's west side, where they will have easy access to university expertise and facilities.

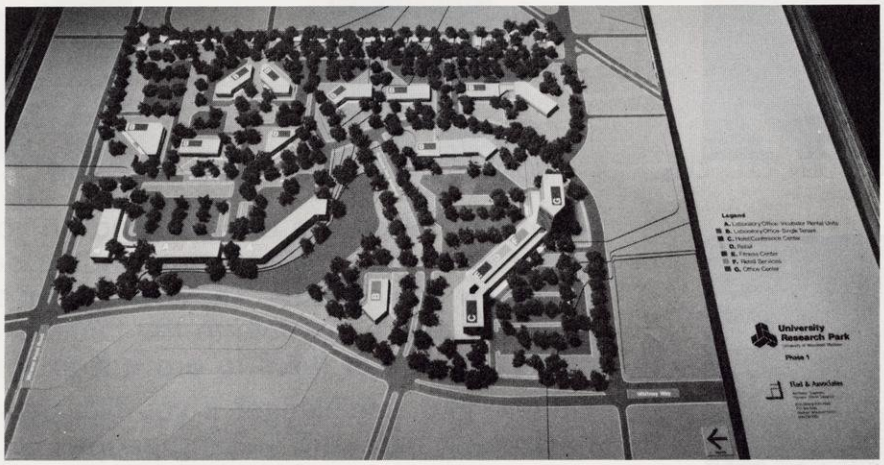
In return, profits from land leases will be channeled through a non-profit corporation to provide long-term support for future research at the university.

This marks the start of "a new vitality and a new era of cooperation with business and industry," says UW-Madison Chancellor Irving Shain. "We are very excited about this project."

Several years in the planning, the research park has survived all regulatory hurdles, having received final State Building Commission approval in July. The first tenant, Warzyn Engineering, Inc., plans to break ground for a $2-million expanded facility in October. The Madison-based company conducts soil and ground water contamination studies, and is working on several hazardous waste projects in the Midwest.

The research park will be developed on the university's Rieder and Charmany Experimental Farms south of Mineral Point Road on either side of Whitney Way. As the area around the farms became increasingly developed, the College of Agriculture and Life Sciences found itself at odds with the new neighbors who objected to manure smells and flies, and whose children disturbed experimental plots and risked injury by playing with farm animals. With the help of a $1.5-million gift from the Wisconsin Alumni Research Foundation, the University's Mandt farm west of the beltline has been expanded to accommodate the field research that will be displaced by the research park.

Development of a research park will not produce as much revenue for the university as other types of commercial development, but Wayne McGown, special assistant to the Chancellor, says there will be many other benefits.



Model shows the proposed layout of the UW-Madison's new research park to be constructed off Whitney Way (foreground) and Mineral Point Road. Groundbreaking for the park, which is expected to attract new businesses to Wisconsin, will take place in October.

"One of the most important results will be the creation of jobs for university graduates who want to stay in the Madison area," he says. Other advantages include creation of part-time jobs for graduate students and development of opportunities for faculty to consult with local industry, and for company personnel to serve as adjunct professors or partners in university research.

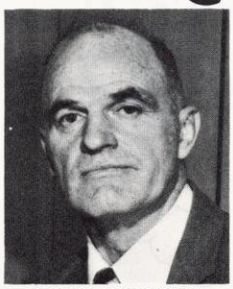
"We are particularly interested in businesses that can take advantage of the university's strongest areas of research," says McGown. These include such fields as biotechnology, computer research, medical instrumentation, robotics, materials science and toxicology.

McGown says it is primarily the strength of the university's research program that distinguishes this project from similar projects at many other colleges and universities, and that strength is likely to make this project succeed where others have failed. UW-Madison is ranked third among U.S. universities in research and development expenditures in the sciences and engineering, according to the latest figures released by the National Science Foundation. UW-Madison is surpassed only by Johns Hopkins and Massachusetts Institute of Technology, both heavily dependent on Department of Defense funds.

Development plans call for a variety of single and multi-tenant buildings in a campus-like setting to accommodate corporations needing laboratories, offices and areas for specialized manufacturing. In addition, space is planned for complementary businesses that will pay higher rents and provide more income for the university, such as law and accounting firms, a hotel and convention center, retail shops and a fitness center, as well as condominium and rental housing.

Should the research park fail to attract research-oriented businesses, McGown says, many advantages would be lost. But the university could salvage the investment, and probably earn more direct income, by concentrating on higher-rent developments. However, university officials are optimistic that the University Research Park will succeed.

CHALLENGE US!!!

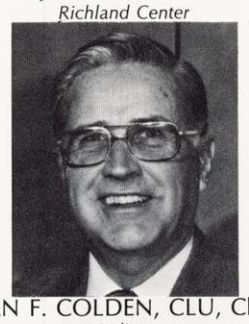


JERRY COOPER
Richland Center

FRANCIS T. ROMAN
Stevens Point

PAUL M. POEHLING, CPA, CLU
La Crosse

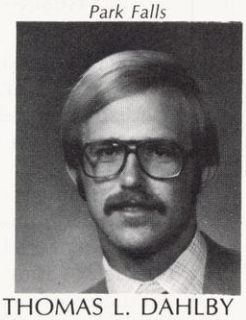
ALBERT E. PETLOCK
Park Falls



DEAN F. COLDEN, CLU, ChFC
Madison

ROBERT G. PARTRIDGE
Beloit

DAVID L. SAETHER
Madison



THOMAS L. DAHLBY
Marshfield

THOMAS M. MULTERER, CLU

What kind of person do you need on your financial planning team? These agents have shown outstanding dedication, loyalty, and expertise in serving their clients. They have risen to the challenge of providing the best service possible to the families and businesses of Wisconsin. Challenge one of them to prove it to you.

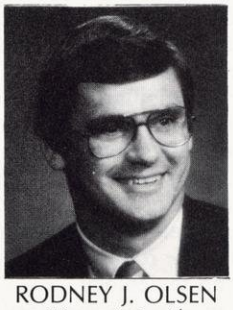
Do you like a challenge? If you like personal selling and are interested in working hard and helping people, call Tom Multerer, CLU, Agency Manager, or one of his District Managers. You may find that you would thrive on the challenge of an Equitable career, where your income is limited only by your effort.

E. L. DAHLBY
Marshfield

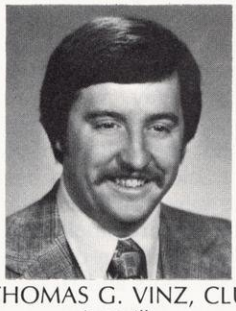
ROGER P. FORCIER
Eau Claire

DAVID K. JOHNSTON
Madison

DONALD F. MURPHY, CLU
La Crosse



RODNEY J. OLSEN
Wisconsin Rapids



THOMAS G. VINZ, CLU
Janesville

THOMAS M. MULTERER, CLU, AGENCY
The Equitable
Walnut Grove Professional Building
4200 University Avenue, Suite 2000
Madison, WI 53705
(608) 231-3600

The Equitable is an Equal Opportunity Employer

Live the good life.
THE EQUITABLE
Financial Services
The Equitable Life Assurance Society of the United States, N.Y., N.Y.

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 7/18/84

CONTACT: Wayne McGown (608) 262-3677

UW-MADISON RESEARCH PARK GETS FIRST TENANT

MADISON--The long-awaited University Research Park at University of Wisconsin-Madison, given final state Building Commission approval just last week, has secured its first tenant.

UW-Madison Chancellor Irving Shain told a Madison Rotary Club meeting Wednesday (July 18) that Warzyn Engineering, Inc., a fast-growing Madison engineering and consulting firm, has established plans to build the first facility in the new research park. Shain said the firm would probably break ground about Oct. 1.

Shain called development of the research park "the start of a new era of economic vitality" for Madison and for the state as a whole.

Plans for the park, located on 300 acres of university-owned farmland on Madison's west side, have been under way for two and a half years. The project calls for phased development of about 130 acres to be leased to private companies for research facilities, and much of the remaining land for privately-financed commercial and retail business and housing.

"We are very excited about this project," Shain said. "This is the start of a new era of economic vitality, a good example of university outreach to industry, and an example of a long-term investment to support future research at the university itself."

Shain said the first phase of the project, development of research facilities and possibly a hotel-conference center on the 100-acre Rieder farm

-more-

portion of the property, could provide the city with 800,000 square feet of additional research and office space, and provide about 2,500 new jobs.

The research park also will create a long-term endowment for the university, Shain said, through the establishment of a non-profit corporation. The corporation will operate the research park and lease the land to tenants. The rental payments on the land then come back to the university to support research, he added.

Warzyn Engineering provides engineering and consulting services in such areas as waste disposal, groundwater contamination and water-based development. Warzyn officials said the company had evolved from a local to a national firm and experienced a 30 percent growth in business in the past year.

In a letter to Madison Mayor Joseph Sensenbrenner, Warzyn president Bruce Weber said development of the research park and the opportunity to work with UW-Madison faculty members were key factors in the corporation's decision to "solidify our local presence" in Madison.

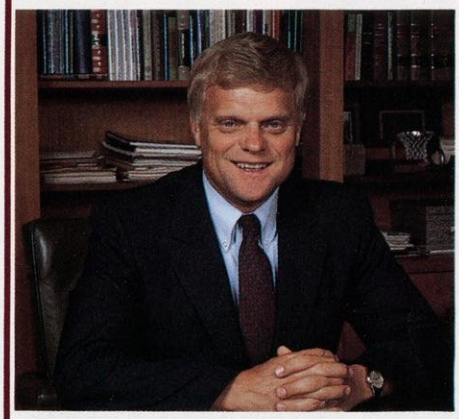
###

--Steve Schumacher (608) 262-8289

UW Research Park

The University of Wisconsin System

Means Business



Big business or small, high tech or labor intensive, international or local . . . the UW System is helping all kinds of companies solve problems and find new ways to move ahead.

Kenneth A. Shaw
President
The University of Wisconsin System

Since the early 1900s the University of Wisconsin has been a leader in advancing knowledge and applying the results to improve everyday life. Today, the research and teaching excellence that helped create "America's Dairyland" is allied with business and industry to gain the competitive edge needed for growth in the 1990s and beyond.

- UW faculty attract some $193 million a year in private and federal research funding for projects ranging from a new biopulping process to x-ray lithography.
- More than 500 UW departments, laboratories, consortia, research centers and other units offer expertise and assistance.

To tap the enormous range of services available through the UW System's 13 universities, 13 two-year centers and statewide Extension, write or call for a free copy of the 1988 *Directory of University Resources for Business and Industry.*

Toll free in Wisconsin: Dial 1-800-362-3020 and ask for WISC.
Out of state: Call 608-263-5512 direct.
Or write:
University Relations
1855 Van Hise Hall, 1220 Linden Drive
Madison, Wisconsin 53706

University of Wisconsin-Madison

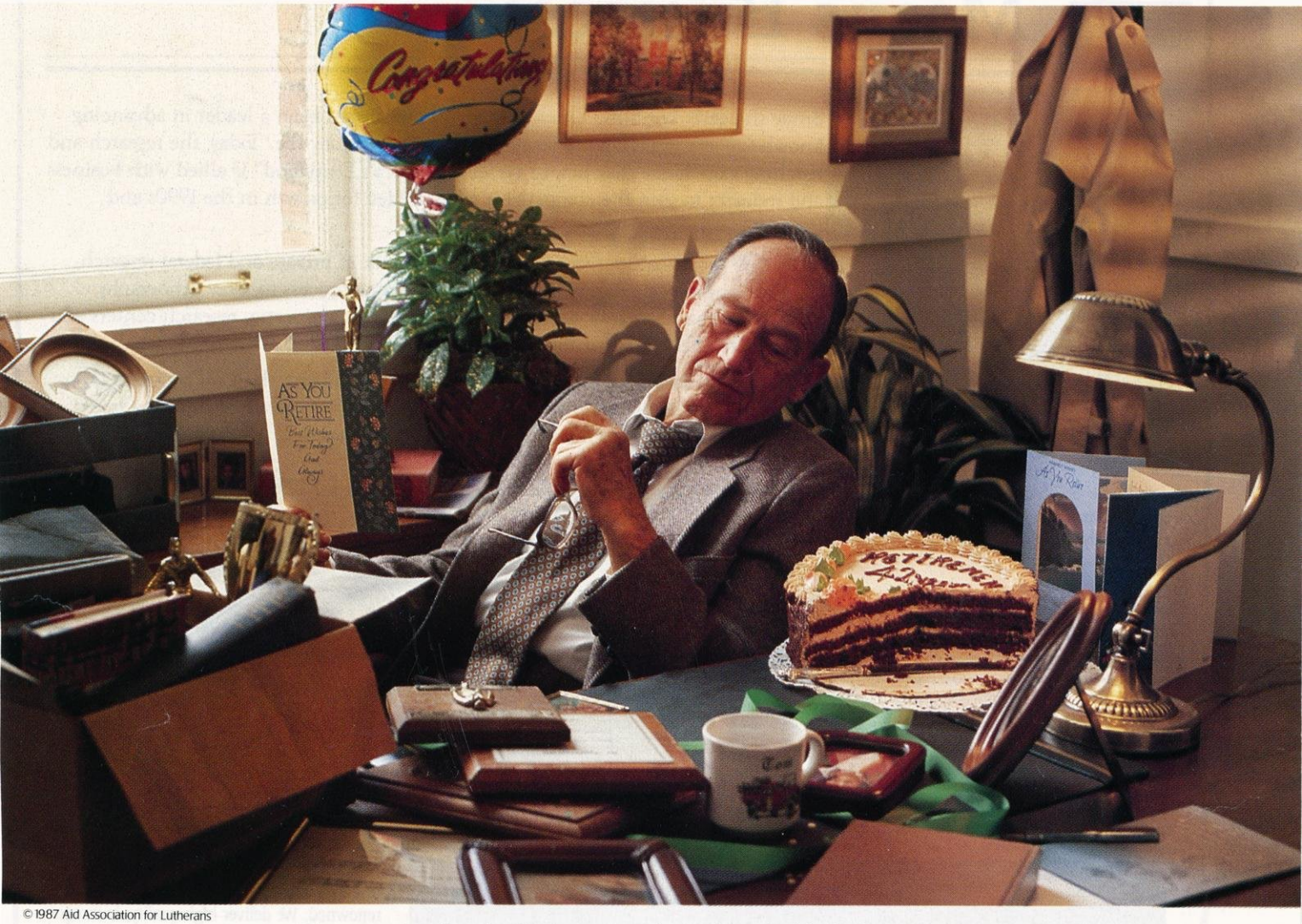
A World Class University boasting a World Class Research Park

UW–Madison, one of the nation's largest research universities, is internationally renowned. We deliver high quality, low cost education. We contribute knowledge that is on the cutting edge of fields from Afro-American literature and astrophysics to zoology and zerobase budgeting. We take pride in the service we provide to the people of Wisconsin and beyond.

In 1984, we established the University Research Park so that business and industry could better tap our resources, better convert the ingenuity and state-of-the-art research of our faculty and students into real-world products, services and jobs. On 325 acres, with 9 top-notch companies employing 500 people, our Research Park is off to a strong start. But there's room to grow.

For more information, call us and ask for the University Research Park: (608) 262-3677; toll free (Wisconsin) (800) 362-3020; toll free (Continental USA) (800) 262-6243.

AAL: Because there are times when you shouldn't have to go it alone.



From stock clerk to retiring sales manager in 42 years, 11 days.

You hadn't really expected the party. The funny speech, the cards, the cake that Helen baked, and the good memories will last you another forty-two years.

But the most reassuring thing can be the knowledge that you've planned wisely for your retirement. With a financial strategy from AAL that includes a solid life insurance plan, an annuity, an IRA, and mutual funds.

Truly, retirement is no time to go it alone.

And planning for your retirement is the time when AAL can help. In this complex time of new tax laws, and growing financial uncertainty, you'll find your AAL representative is equipped with the knowledge and resources to provide the individualized financial planning you need.

So call your AAL representative today. It could be the best move of your career.

Financial security and personal service are only part of the benefits of membership in AAL. There's also a broad range of self-help programs and volunteer opportunities unique to the nation's largest fraternal benefit association.

For more information, write AAL, Appleton, Wisconsin 54919-0001.

AAL and affiliated companies

AAL

Fraternal Benefits And Financial Security For Lutherans

MADISON HIGH TECH WEEK KICK-OFF REMARKS

UNIVERSITY OF WISCONSIN-MADISON CHANCELLOR DONNA E. SHALALA

SEPTEMBER 19, 1988

Univ. Research Park

It seems fitting that we should kick off the Greater Madison Area's High Tech Week here at the University Research Park with such impressive representation from the public and private sectors.

I am delighted to be a part of this celebration with Mayor Sensenbrenner, County Executive Rick Phelps and University of Wisconsin System President Kenneth Shaw. We share a deep commitment to the economic development of this city, this county and this state.

In that light, we want especially to thank Don Helfrecht and his colleagues at Madison Gas & Electric Company for their strong support, not only of this event, but of the whole development of our research park.

It is from here and from our university laboratories, after all, that some of the most extraordinary technological innovations of the future will come.

Research innovations that will reinforce the outstanding reputation of our University faculty, and play a key role in economic development throughout this region and the nation.

From this ground will flower a new and vital part of the UW's land grant heritage: a commitment to research, education and service that will yield new jobs and expand the state's economic base.

The University Research Park is a vital component in our plan to help business and industry take more advantage of our expertise. To transfer innovative ideas from the classroom and laboratory to the workplace.

-more-

The possibilities for unique and profitable relationships between our faculty and research park tenants are many. Fostering new business here is one way we can keep the ingenuity nurtured at UW-Madison and at other Wisconsin campuses right here in Wisconsin.

What you see here today is the bud of the flower. Granted, it's one impressive bud. Since the park was established four years ago, almost a third of the park's 325 acres has been committed to development.

Nine top-notch companies are in the park. They soon will employ more than 500 people. But research parks are ambitious, far-reaching, delicate organisms that take time to mature.

We have a vision for this park for the coming decade. The park can be the Midwest's equivalent of Stanford's research park in the west and North Carolina's Research Triangle in the east. But it will compare to these only if we proceed with the utmost care in planning. It can't be rushed.

We've all heard the criticisms: Why aren't more businesses locating in the University Research Park?

Well, the fact is, they are.

Look around. We are making progress. The University Science Center -- these beautiful buildings -- house, or soon will, Hazleton Laboratories, Medical Media Associates, Xylan (zi-lon), Incorporated, the geotechnical laboratory of Warzyn (War-zeen) Engineering, CG Technologies and Grassland Media services.

Beyond the Science Center, the Hospital Corporation of America is building a facility on the western edge of the park. We are extending Science Drive all the way to Whitney Way come Spring.

Of course, there have been setbacks and disappointments, among them the loss of Sematech. But we have proceeded in the Park's planning with deliberate care.

This is not an industrial park where the word 'research' is a commercial gimmick for 'real estate' marketing. Such parks can be successful and well run, but this is the University of Wisconsin-Madison Research Park.

Not every firm that has wanted to locate in the park has meshed with our goals and mission. We have been selective in choosing our tenants. And they have been selective in choosing us. So what may look slow has, in fact, been painstaking growth.

We have to remember that our model parks -- North Carolina and Stanford -- began as far back as the 1950s. We began in 1984. Those parks have 20 years on us. In another 20 years, we fully expect that ours, too, will be a model.

We are promoting and marketing this park aggressively, but not at the expense of our goals. This year, we'll complete construction of the third building at the University Science Center, and expect to begin construction on one or two more buildings. In coming years, the Science Center will boast seven beautiful buildings. And other exciting projects are in the works.

I especially want to take this opportunity to thank Wayne McGown who has worked tirelessly to promote and develop this park, and his staff who have so ably assisted him in that process. I want to thank Roy Dagnall and Hazleton Laboratories for their commitment, and Doug Frakes and Construction Concepts for their construction management and leadership.

Also deserving of our gratitude are Rick Parfrey and Strang Partners for a series of buildings designed to complement the Park, and Bob Gorsuch, Susan Druml and Jerry Ley of the Park Bank for financing assistance.

It has taken many dedicated people to help plant this seed and nourish it. It has taken the support of our University System, our community and our state. We plan to grow, with your help. All we need is time, patience and your continued support to realize the full potential of this idea, to realize the full partnership between university researchers and private enterprise.

####

9511I

Unid. Research Park

BUSINESSES TAKE ROOT IN UNIVERSITY PARKS

High Technology
January, 1986

Industrial centers near campuses promote sharing of resources and development of new firms

by Sarah Glazer

Relations between academia and industry have not traditionally been close. Academic scientists tended to shy away from influences that might taint the purity of their research aims, while corporate leaders were generally content to leave the theorists in their ivory towers. But that was before Stanford University turned its surrounding orchards into Silicon Valley—the world's "fertile crescent" of high tech entrepreneurship—and before sharp cuts in federal research funding (except for defense-related projects) made corporate support crucial. Today, links between universities and industry have strengthened considerably, to the point where over 40 schools, in cities from Orlando to Seattle, are trying to repeat Stanford's formula for success. These "research parks," real estate developments usually adjacent to campus, are intended to draw R&D companies into the university environment and to help nurture those that are already there. Some of the most successful so far are Forrestal Center at Princeton, with over 50 companies in residence; Research Triangle Park between the University of North Carolina, Duke, and North Carolina State, with over 40; University of Utah Research Park, with over 30; New Haven Science Park at Yale, with over 20; and, of course, Stanford Industrial Park, with 80.

The university's strongest motive for

ILLUSTRATION BY ROB COLVIN

George E.P. Box

WSJ 12/29/85

Know your Madisonian

Professor George E.P. Box is a member of the Royal Society of London, a membership he shares with such luminaries of the past as Charles Darwin and Isaac Newton.

That says something about Box, the founder of the UW-Madison Statistics Department and a UW faculty member for 25 years.

Box also enjoys flying kites in Wisconsin's state parks, and that says something else about him.

He is a Vilas Research Professor of Statistics at the UW, one of the most prestigious titles a faculty member can carry. That says something, too.

Two years ago, at a meeting of the Royal Statistical Society, Box carried on a long conversation — extolling the virtues of Madison — with Queen Elizabeth II.

"It was just like talking to your mom," he recalled. "I didn't know what to think when I was presented to her, but she was very easy to talk to and very interested in Madison."

One of his former students describes him as "the most humble man I ever met."

Perhaps the best description of Box is that he appears to be a man who enjoys his work and enjoys his life.

"I came to Wisconsin originally to give a seminar on what a model statistics department might be like," he recalls. "When I finished, they asked me to stay and create such a department.

"By and large, I found I liked it here," Box continued. "I found I could talk to the people here. The administrators here are real scholars — a person can be a dean one day and a professor the next. So, I've felt very warmly about how the place was run."

A native of England, Box earned his Bachelor of Science, Ph.D and Doctor of Science degrees from London University.

He began his career as a chemist, but became a statistician during World War II.

"I was in the Army and they assigned me to a research unit that was trying to figure out what to do about poison gas.

"One day, a colonel asked me if I knew statistics. I told him that I had read a book but knew nothing about it. He replied that, since I had read the book, I was the statistician because they couldn't find another."

Following the war, he worked as a statistician for the Imperial Chemical Industry and published a number of articles on his research.

"That caught the attention of people in America and they started inviting me over to give seminars," Box said.

He was a visiting professor at the University of North Carolina and director of the Statistical Techniques Research Group at Princeton University before coming to the UW.

In 1966 he was a visiting Ford Foundation professor at the Harvard Business School and in 1970 he was a visiting professor at the University of Essex, Colchester, England. But his career has largely been carried out here.

"Statistics might sound as if it were a dull subject, but virtually every field needs statistical analysis," Box said. "There are a lot of people at the UW who are doing all kinds of fascinating research and they often need help with the statistics part of it. So, if you learn to listen, you can get to know a little bit about many subjects."

Box knows a great deal about a number of subjects. He is, for example, a consultant to American Cyanamid, Monsanto Company, the World Bank, the Pillsbury Company and to the Federal Reserve Board.

He is the father of two children, Helen, a medical student, and Harry, who recently completed a degree in communications arts.

George E.P. Box

— State Journal photo

developing industry on its doorstep is pure defensiveness, believes Chase Peterson, president of the University of Utah in Salt Lake City. Administrators have learned that they must "increase financial opportunities for faculty and students," he says, or risk losing their top science and engineering researchers to the corporate world. Peterson should know: "Two years ago, we lost the head of our toxicology department to Genentech in San Francisco."

Stanford, in fact, set up the prototype research park in 1951 to stem its own engineering brain drain, says Frank Morrow, a real estate consultant who was in charge of the park when he was Stanford's real estate director. "Frederick Terman—a professor who later became dean of the engineering school—wanted to stop the exodus of engineering grads to the East," says Morrow. With token support from the university, Terman convinced several former grad students who were starting their own companies—William Hewlett, David Packard, and the Varian brothers (Sigurd and Russell)—to set up shop in Palo Alto. Today, computer manufacturer Hewlett-Packard and instrument manufacturer Varian are two of the main reasons the Santa Clara Valley is a magnet for engineering talent from around the country and the world.

Most observers believe that a company's strongest incentive for locating in a university research park is the proximity to skilled researchers and to well-equipped labs. Being at Princeton's Forrestal Center "has turned out to be the greatest stroke of good fortune," says Marc Ostro, founder and chief science officer of Liposome, a biotechnology company. "We're right in the heart of the pharmaceutical industry and are two miles from the Princeton campus. We use research equipment there that we couldn't afford to buy."

Many universities in the industrial Northeast and Midwest are hoping that access to top-caliber research teams will counteract the high wage and tax rates that are driving local manufacturers toward sunnier climes. Such a rationale is behind a recently established research park at the Madison campus of the University of Wisconsin, which ranks itself as the third most heavily funded research university in the United States. "Taxes are high in Wisconsin, it snows in the winter, and other parts of the country can offer lower wages," says Robert Brennan, president of the Greater Madison Chamber of Commerce. "But we have a great grad school." It also has significant support from the state. Wayne McGown, assistant to the university's chancellor, observes that the state legislature passed a budget increase for the university this year—despite pressure to cut funding—because it recognized the school's importance to economic development.

Some states have enthusiastically supported parks for just this reason, both in industrial and in predominantly agricultural areas. New York helped fund several programs at Rensselaer Polytechnic Institute—in addition to its park—aimed at breathing new life into the area's manufacturing base. And North Carolina's state government was the driving force behind Research Triangle Park because it hoped to attract industry to a relatively undeveloped region.

From the R&D companies' point of view, locating near a university provides a steady opportunity to size up potential employees. Computer graphics company Evans & Sutherland, a tenant of the University of Utah Research Park, recruits aggressively for entry-level technical staff at the neighboring grad school, according to Susan Mickelsen, the firm's director of corporate relations. For companies, says Everett Rogers, an associate dean at the University of Southern California, "the chance to eye promising grad students and faculty" is one of the most worthwhile aspects of collaborative research.

But in some fields, such as artificial intelligence, university research departments are more than just recruiting grounds; they are the undeniable center of scientific activity. "When we were talking about where to locate," says Howard Schrob, technical director for Symbolics, a maker of AI-oriented computers, "I realized it was important to be close to MIT. If you want to know what's really going on in AI, that's where the seminars are." The company leased a building two blocks from the Cambridge, Mass., campus; given the local traffic and parking problems, says Schrob, "being even two or three miles away would have been too far."

Blueprints for research parks. The actual mechanics of setting up research parks have changed considerably since the 1950s and '60s, when entrepreneurs were usually content with space in old barracks buildings and garages. Standards have risen, and with some 40 parks underway nationwide, fledgling companies can be choosier. "The competition has gotten much stiffer," contends Mark L. Money, vice-chancellor of Texas A&M University. In contrast to the modest university investments for the first parks, he notes, "Arizona State is spending $15 million up front for roads, utilities, and landscaping—before commitment from any tenants—and Texas A&M will spend $6 million for site development before breaking ground for buildings."

Land itself can cost a bundle for schools that don't already own adjoining undeveloped acreage (as Stanford did in the 1950s). Princeton, for example, earmarked $27 million for land acquisition and improvements at the Forrestal Center site, according to Money. The problem is particularly acute for urban campuses, where undeveloped land is usually nonexistent and where expensive amenities such as high-rise parking lots are often necessary. In addition, others in the community may have their own agendas. MIT's differences with residential neighbors caused a delay of several years before its University Park could proceed. MIT finally agreed to include 100 new apartment units and several open grassy areas in its plan.

While most universities leave the specifics of site development and construction to real estate developers, almost all take part in selecting tenants. They usually stipulate that companies be oriented toward research or technology, a definition loose enough to admit, say, venture capital firms that fund high tech companies. Most parks seek tenants from many fields, but a few now in the planning stages focus on single technologies. A proposed park in Clemson, S.C., intends to admit only companies in the medical field, and another planned for San Antonio, Tex., expects to limit its tenants to biotechnology firms. Such projects, which aim to achieve a critical mass in a particular field, could be headed for trouble, according to Texas A&M's Money. "There just isn't a broad enough market right now," he says.

Regardless of scope, almost all current parks restrict their tenants' activities. Manufacturing and assembly is in most cases limited to small-scale operations, most often for making prototypes or devices directly linked to long-term research and development. In contrast, Stanford's park in 1951 was open to all "clean" industry—that is, companies that didn't belch black smoke—and included publishing houses and ordinary offices, says Morrow, its former director. The irony, he adds, is that some industries then considered clean, such as semiconductor manufacturing, have turned out to be major producers of hazardous waste.

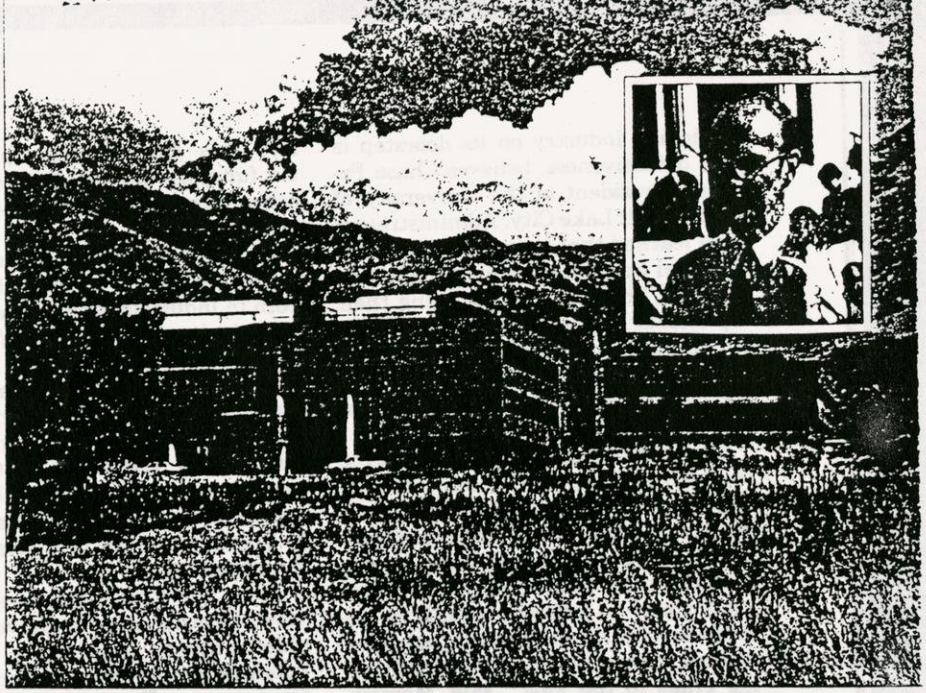
Most parks include buildings for both single and multiple tenants. In some cases a multitenant building is set up as a small-company "incubator" to help nurture young firms. For example, a recently opened incubator in London, the South Bank Technopark—one of many European developments much like those in the U.S.—gives its tenants bookkeeping services and access to an

adjacent technical college's computer system and engineering labs. "We are attracting companies three to five years old, for the most part, that are growing but unable to afford expensive offices," says the park's director, Jeffe Jeffers. "Our aim is to keep companies here for a short time and then move them into custom property we hope to build."

Even if a company isn't in an incubator, being in a research park often gives it access to services available almost nowhere else. Since becoming a tenant in Yale's New Haven Science Park a year and a half ago, Impulse Engineering, a maker of high-energy power-conditioning systems for equipment such as lasers and CT scanners, has been using Yale's computer system and electron scanning microscope on a pay-per-use basis, says vice-president and cofounder Tony McNulty. The arrangement has helped the young firm immeasurably, he says. "When you're on a venture capital–funded budget, every penny counts." And Evans & Sutherland's Mickelsen says that when the company started in 1968—while its two founders were still professors at the University of Utah—its presence in the park enabled it "to piggyback on insurance and other benefits from the university."

In the case of the state-supported schools, such arrangements have sometimes come under criticism. Off-campus competitors of park tenants have charged that their taxes are helping subsidize favored companies. The intent of these publicly owned parks is to generate revenue for state and municipal coffers—both by stimulating economic growth and by giving the universities an independent source of income through the leases on their property. Yet most do offer their tenants unusual benefits, at least partly underwritten by other university facilities. "All we're doing," argues Utah's Peterson, "is building our own Rockefeller Center" (this valuable piece of Manhattan real estate was bequeathed to privately owned Columbia University). Wisconsin's McGown acknowledges that "building a long-term endowment for the future is only a recent concept in public universities." The implicit subsidy problem, and how these institutions can also function as real estate managers, must still be ironed out.

Cultivating home-grown firms. As a rule, research parks have been most successful in fostering local companies and especially in aiding entrepreneurs among the faculties and student bodies of their own schools. For some parks, the focus on local ventures is strictly pragmatic. "We have limited resources for competing with



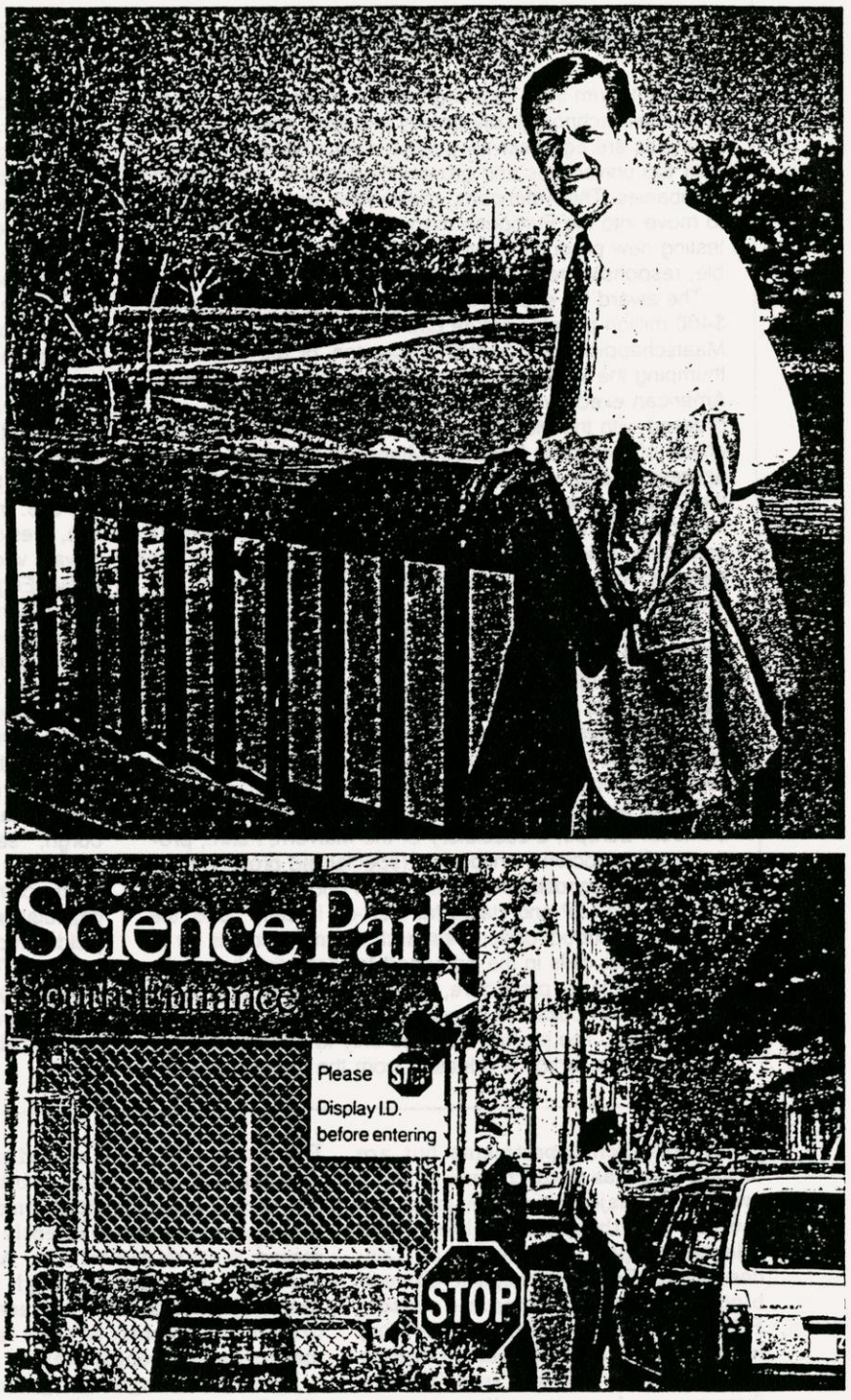
Industrial parks near campuses may help stem the brain drain from academia, says the Univ. of Utah's Chase Peterson (top). But they also contribute to divided loyalties among faculty, says Symbolics' Howard Schrob, shown in his office overlooking MIT (bottom).

major U.S. centers like Boston and San Francisco," says Glenn Mitchell, senior officer for the research park development authority in Edmonton, Alberta. "Our efforts are going toward growing our own companies."

But for all universities, whether near high tech epicenters or far away, looking inward for the seeds of start-ups makes sense. Academics may need no more than official encouragement—or, at the very least, a lack of active discouragement—to launch an entrepreneurial career, contends Matthew Bullock, a director of Barclay's Bank (London) who helped develop the research park adjacent to Cambridge University. "Academics shouldn't be forced to choose between continuing an academic career and starting a very uncertain new enterprise."

But functioning with one foot in industry and the other in academia requires a good sense of balance, in both a practical and an ethical sense. "When people have dual allegiances, it's hard to keep them separated," says Symbolics' Schrob, who is himself a part-time lecturer at MIT's AI lab. They increase the likelihood that advisers will—perhaps unconsciously—steer their students into doing research that is commercially valuable but scientifically unexciting. "Most professors are not ripoff artists," Schrob stresses, but students can nonetheless get robbed of the chance to do more challenging research. His own solution to the dilemma is to pursue two distinct areas of research. "At Symbolics I do chip architecture, and at MIT I do AI," he says. But while the division reduces conflicts of interest, it also means he must spread himself pretty thin. "The practical consequence," he says, "is that I don't spend enough time doing AI to supervise students."

Universities nudging faculty towards business should take care not to go overboard, cautions Wisconsin's McGown. Because "pulling professors out of the classroom could be devastating," he says, time spent away from teaching duties should be worked out individually with the approval of a faculty member's entire department. Otherwise, professors who aren't involved in off-campus ventures may legitimately feel coerced into shouldering extra duties, while their colleagues get a shot at becoming rich and famous. The University of Utah's solution is to require professors whose outside work interferes with their academic duties to go onto part-time status. It also allots a portion of royalties from commercializing faculty research to the researcher's department. "The assumption," says Peterson, "is that they all contributed to give one person that extra time."



Texas A&M provided roads and utilities for its park, says vice-chancellor Mark L. Morey (top); Yale's urban setting (bottom) made such costs largely unnecessary.

Interdepartmental jealousy can also be a problem, especially when faculty members feel that the university encourages some but not all of them to pursue commercial ventures. When faculty senates must vote on research parks, the proposals do not always win support from humanities and social science staffs, who are already painfully aware of enrollment trends toward majors in hard science, engineering, and business. Accommodating industry-university collaboration isn't easy. Says Peterson, "It does contaminate the ivory tower," and academics must learn to play by new rules.

The importance of location. Even though almost all parks are encouraging home-grown ventures, some universities have also managed to entice companies from other parts of the country. They are usually institutions that not only have top-

European schools get into the act

Anxious to trim their lingering high unemployment (and to shed their technologically dowdy images), many European countries are aggressively playing matchmaker between their top universities and growth-minded U.S. biotechnology companies. The Americans, meanwhile, are just as anxious to move into the European marketplace by producing and testing new products in what is widely regarded as a nimble, responsive regulatory setting.

The award for effort probably goes to Holland, where a $400 million private venture capital group in the Hague—Maatschappij voor Industriele Projecten, or MIP—has been thumping the virtues of Dutch workers and universities to American executives since 1982. "We were very impressed with the MIP," says Franklin Pass, chief executive officer of Molecular Genetics (Minnetonka, Minn.). "They're aggressive and upbeat, and have first-rate connections with the Dutch business community." Partly funded by the MIP, Molecular Genetics is now building a research and production site at Leiden University's bioscience park, where it will perform work in plant genetics and animal healthcare products.

The subsidiary will have no formal ties to the university (although Leiden professors will sit on the new company's scientific board). However, says Pass, "we knew right off that this would be the perfect environment for our kind of work." Besides the rich academic setting, Pass clearly sees Holland as the company's doorway to Western and Eastern European markets.

One of Molecular Genetics' neighbors at Leiden will be Centocor-Europe, a subsidiary of the Malvern, Penn., producer of monoclonal antibodies (specialized proteins used in disease diagnosis and treatment). Funded with $2.5 million from the MIP and slated for start-up in early 1986, the facility will conduct clinical research on monoclonals for imaging cancer cells in the body and for detecting heart disease. In the latter procedure, a proprietary antibody called antimyosin is hooked to a radioisotope and injected into the bloodstream. The protein attaches only to another protein, called myosin, which is released from the heart muscle during a coronary attack. A special camera is used to create a vivid portrait of the bound antibodies, thus identifying the location and extent of dead muscle.

Like Molecular Genetics, the company maintains a flexible relationship with the university, says Bruce Peacock, vice-president of finance. "But we're counting on a broad exchange of ideas and information," he says. "The university will make space and other resources available to us. In return, we will support several of its research programs and be an important employer for the students." Centocor has signed about a dozen such contracts with European researchers, several of them at Leiden.

But it was Scotland that pocketed what is reportedly one of the heftiest biotechnology investments ever made in Europe—the $40 million production facility planned near Edinburgh by Damon Biotech (Needham, Mass.), another leading U.S. monoclonals company. During the search for a site, president Nigel L. Webb met with several public and private venture groups in Holland, West Germany, and his native England. What finally hooked him, he says, was the enthusiasm and economic support offered by the Scottish Development Agency (Glasgow) and backed up by a group of European venture capitalists led by Advent Ltd.

Damon's relationships with local academics are still tentative, says senior vice-president Joseph F. Lovett, although professors from the area will probably sit on the scientific board of the new company (called Damon Biotech Ltd.). "We've known for a long time that there's top-notch medicine in that region, especially at the University of Edinburgh," says Lovett. "It was certainly one of the major factors in our decision."

The company holds exclusive patent rights to a cell encapsulation technique (called Encapcel) that reportedly yields much higher product densities than other culture methods. The Edinburgh facility will use Encapcel to make a variety of biological products beginning in early 1987, says Lovett—including monoclonals and a clot-dissolving protein called tissue plasminogen activator.

—H. Garrett DeYoung

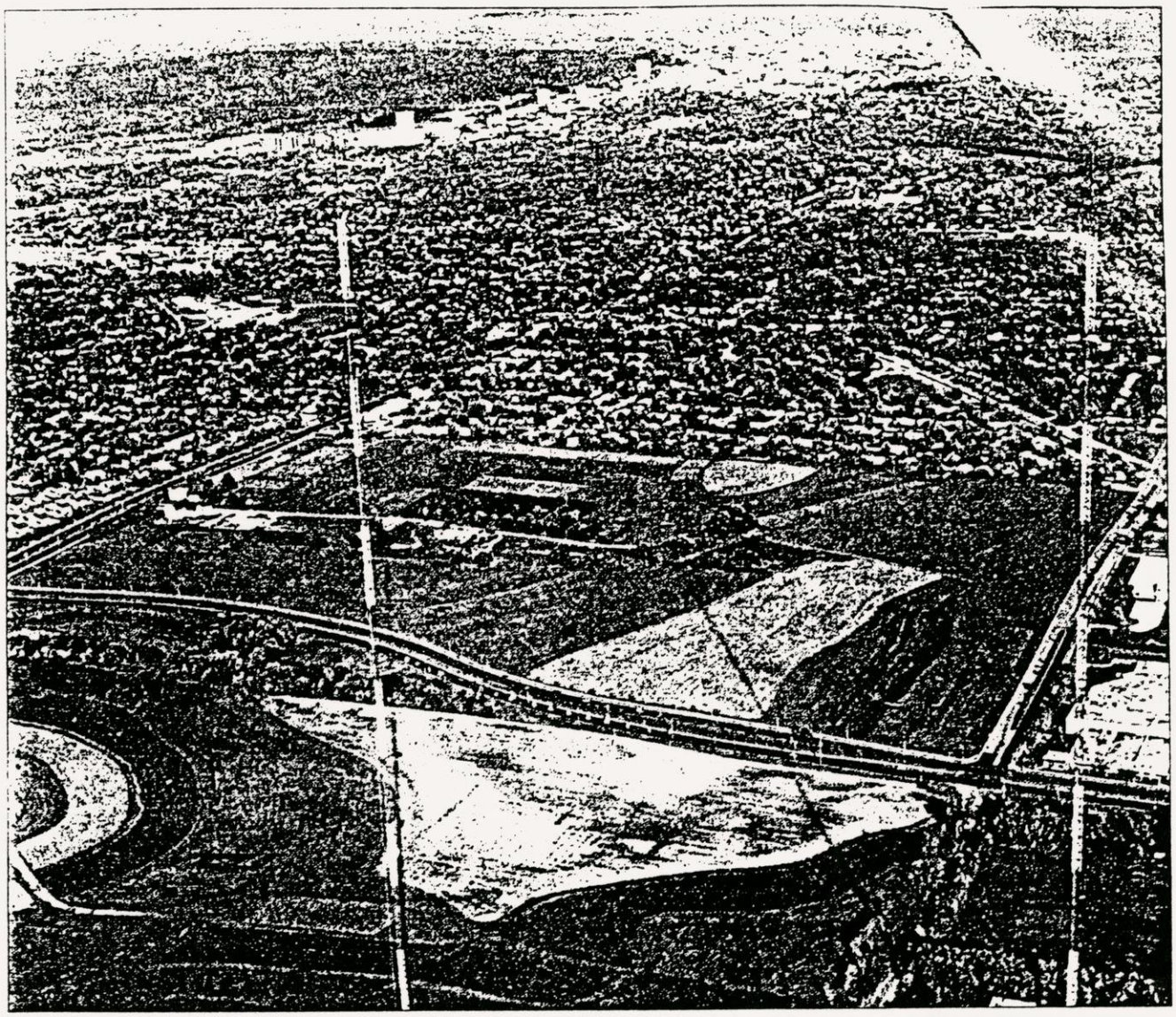
caliber research departments but are located in areas with charms of their own. "The major cities are great resources, with the quality of life to hold talented people," says Jeffers at London's South Bank Technopark. Ostro of biotech start-up Liposome extols Princeton's resources when describing his company's tenure there. "Princeton is a great place to live, a stone's throw from two major metropolitan areas—New York and Philadelphia." It's also close to some of the company's potential customers, he adds, and within easy reach of several large airports.

Although universities in less settled regions tout the merits of a leisurely lifestyle, they do face competitive disadvantages. Compared with the Northeast and the West Coast, there's very little local financing for new companies. Madison, Wis., for instance, has no local venture capital firms, a deficiency that chamber of commerce president Brennan concedes has slowed economic development. In an effort to bring local entrepreneurs to the attention of out-of-town money, Madison recently held its second venture capital fair. And Salt Lake City, reportedly a tough place to find funding despite the university's aid to start-ups, recently saw the establishment of its first venture capital firm.

For Impulse Engineering, the wishes of its financial backers played a big part in its decision to set up in New Haven, reports VP McNulty. His partner, David Turnquist, formerly worked in the Boston area—the home of the company's venture capital backers—while McNulty worked in Stamford, not far from New Haven. "Boston is a very expensive place to start a business," says McNulty, "but the venture capitalists didn't want us to be too far away." Convenient transportation, a good supply of skilled technicians, and, of course, Yale resources made New Haven an ideal choice.

Most university parks probably can't hope to match the fast growth rate of Yale's New Haven Science Park, which has acquired more than 20 tenants since it opened in 1981, or that of the Cambridge Science Park, the research park connected with Cambridge University in England, which sprang up in a few short years with no university involvement other than its gift of land. The effort to cultivate high tech industry far from existing centers is a long, slow process. Research Triangle Park, for example, took 30 years to acquire its 40 tenants. "It took 20 years just to take off," says Rogers at USC. "The turning point didn't come until IBM started a big R&D center there."

Patience pays. One of the main prerequisites for a development's success is simply staying power, contends Texas A&M's Money. For most



A former test farm at the University of Wisconsin provided a nearby park site in otherwise crowded Madison.

universities, which lack the perfect combination of world-class research talent, the infrastructure of a nearby metropolis, and a thriving financial community, progress is painfully slow. "You can't really hurry things up," says Money, but intelligent management can improve the odds considerably. "The success of most university parks will depend on how well they are able to identify the university's strengths and market them."

If they do succeed, universities may end up with tenants that, in their maturity, bear little resemblance to the young companies that once required such careful cultivation. The parks' success may also pose a new set of problems. Stanford's development, for instance, is turning into a corporate headquarters park, populated by established companies rather than start-ups. "New companies can't afford to come in," says Morrow, the park's former director, "and Stanford is now trying to figure out how to get them in there to nourish new research." Successful development can also inflate housing prices, as the Santa Clara Valley real estate market has so dramatically proved, making it difficult for either corporate or academic researchers—much less the valley's original residents—to live nearby.

Of course, there are also advantages for universities surrounded by established, prosperous companies—such as the availability of funds for fellowships, faculty chairs, and lab facilities. Some of the same Silicon Valley companies that were grateful to Stanford for the free use of lab space 30 years ago are funding ambitious research programs there today. In some cases, tenants offer help almost immediately. Start-up Liposome, with only 60 employees of its own, already funds two postdoctoral fellowships at Princeton.

But some visionaries foresee research parks not only fostering a diversity of relationships between universities and industry, but also drawing on the widest possible community and producing far-reaching effects. Jiro Tokuyama, a dean at the Nomura School of Advanced Management in Tokyo, hopes to see an internationally supported school set up in Japan or California for training managers and engineers. There, he says, "students could combine studying under an international faculty with getting practical industrial experience." Such a center would "establish a vast network of contacts for these students and encourage cooperation on an international level."

Sarah Glazer is a senior editor of HIGH TECHNOLOGY.

For further information see RESOURCES, *p. 68.*

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 11/11/83

CONTACT: Wayne McGown (608) 262-3677

REGENTS GIVE UW-MADISON GO-AHEAD ON CHARMANY PROPERTY DEVELOPMENT

MADISON--The University of Wisconsin System Board of Regents Friday (Nov. 11) authorized UW-Madison to proceed with development plans for a research park on the university-owned Charmany and Rieder farms on Madison's west side.

Regents approved the name "University Research Park" for the 328-acre parcel, gave UW-Madison the go-ahead to seek the necessary re-zoning from the City of Madison and authorized creation of a Design Review Board to review all future construction.

UW-Madison Chancellor Irving Shain told regents Friday that a mixed-use research park on the site would aid in technology transfer between the university and industry, provide UW-Madison with long-term financial benefits, and be the best use of urban land that until now has been used for agricultural research.

He also praised strong City of Madison and regent support for moving the project ahead.

A recently-completed environmental impact study, conducted by CH_2M Hill of Milwaukee, backed the university's plans. The study concluded that the present farmland is incompatible with surrounding homes and businesses, while the university's mixed-use plan would generate jobs, housing, taxes, revenue for the university and university-industrial interaction.

The UW-Madison College of Agricultural and Life Sciences, which now uses the land for teaching and research, has expressed a preference for moving to

-more-

550 acres of farmland owned by the university west of the present farm, Shain said.

Preliminary plans for the research park call for the phased development of about 130 acres for research facilities and office space, 50 acres for housing, and much of the remainder for commercial and office space, including a possible conference center-hotel.

The university is negotiating the possible sale of 50 acres of the property to the CUNA Mutual insurance company for its expansion, which Shain said could provide initial funds for development of the research park.

He said the development would be "campus-like," with large open spaces, landscaping, a small lake to handle run-off and a network of bike paths.

University officials have said the project could be developed over about a 10-year period, with the first development between 1984 and 1987 on 90 acres of the smaller Rieder farm. The approval process for the first plats could be completed by mid-March of 1984, they said, so the university can begin talks with interested businesses.

Shain said the university hopes to establish a non-profit corporation to buy the land at its appraised value, arrange long-term leases with businesses planning to locate in the park, and use the funds generated to create endowments for university teaching and research. He said such arrangements had worked well in the past in the development of the university's Hill Farm property and the establishment of the Wisconsin Alumni Research Foundation.

###

--Steve Schumacher (608) 262-8289

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 12/14/84

EARL CALLS UW-MADISON RESEARCH PARK 'TANGIBLE EVIDENCE' OF STATE POTENTIAL

MADISON--Gov. Anthony Earl called University of Wisconsin-Madison's new research park tangible evidence of the state's potential for business development and economic growth in remarks at the park's dedication ceremony Friday (Dec. 14).

Earl said he encountered pessimism over the state's ability to create a competitive business climate when he took office two years ago, and skepticism about the value of the university in working with business in technology transfer to foster economic growth.

"But today, we have tangible evidence of the value of the link between the university and the business community, of our regard for the University of Wisconsin as one of our great assets," Earl said.

"Perhaps most important, we have tangible evidence showing people of this state and other states that might be interested in us what our potential is."

Earl headed a list of government and university officials at the dedication for the research park, planned for a 328-acre site owned by UW-Madison on the city's west side. Warzyn Engineering Inc., a Madison-based engineering and consulting firm, broke ground as the first tenant of the park as part of the ceremonies. Warzyn plans a 32,000-square-foot, $1.5 million office on a four-acre site. it is expected to be completed by October 1985.

UW-Madison Chancellor Irving Shain said the research park plans meet almost all the requirements for success listed in the latest national study of

-more-

high-tech research parks, among them the direct support of a major university, a location in a high-quality residential area and in a campus-like setting, and the flexibility to allow the presence and growth of incubator facilities.

But Shain cautioned that there are now about 150 research parks being developed around the country, and "a similar number of well-planned enterprises on the drawing boards."

"To achieve success," Shain said, "we'll require a continuation of the concern and cooperation that we received in the planning phase of this project as we move into the operational phase."

University Research Park, three years in the planning, calls for phased development of about 130 acres to be leased to private companies for research facilities, and much of the remaining land for privately-financed commercial and retail business and housing, including the possibility of a hotel-conference center.

University officials have said the research park is a long-term project that probably will take a decade or more to fully develop.

###

-- Steve Schumacher (608) 262-8289

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Univ. Research Park

Release: Immediately 10/9/84

CONTACT: Wayne McGown (608) 262-3677

RESEARCH PARK CORPORATION OFFICERS AND TRUSTEES NAMED

MADISON--Seven Wisconsin residents have been elected to the Board of Trustees of University Research Park Inc., university officials have announced. They are M. William Gerrard, president of Gerrard Realty Corp., LaCrosse; William D. Knox, president of W. D. Hoard and Sons Co., Fort Atkinson; James T. Lundberg, vice president and treasurer of Employer Insurance Co., Wausau; and Madison residents Donald L. Evans, president of D. L. Evans Co., James R. Morgan, president of the Wisconsin Taxpayers Alliance; Irving Shain, chancellor of University of Wisconsin-Madison; and Joel Skornicka, vice president of UW Foundation.

The trustees recently organized the corporation and elected Shain as president, Evans as vice president, Morgan as secretary and Skornicka as treasurer. Wayne McGown, a special assistant to Chancellor Shain, was named assistant secretary.

The corporation was formed to manage the development of the University Research Park on the Charmany-Rieder farm properties on Madison's west side. Plans call for the corporation to purchase the property from the university and, in turn, convey it to park occupants by means of long-term land leases. Income from the corporation will be dedicated back to UW-Madison for research and educational purposes.

Shain said he was pleased at the willingness of "such a fine group of people" to accept the responsibility of trustee positions on behalf of the UW-Madison, and reiterated his belief that "the University Research Park will have a significant impact on the economic development of the city and the state and the long-range research capability of the University of Wisconsin-Madison.

###

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

UIR

Release: Immediately 10/27/83

CONTACT: Jean Lang (608)263-7274

UW-MADISON MAGAZINE FOCUSES ON RESEARCH

MADISON--Technological advances in biology and engineering are highlighted in the recent issue of Touchstone, the magazine that reports on research at University of Wisconsin-Madison.

Published four times a year by the University-Industry Research Program, Touchstone contains in-depth articles on subjects ranging from chemistry and biology to engineering, economics and international studies.

The September-October issue describes methods developed by UW-Madison animal scientist Neil First for cloning embryos from superior cattle. Cattle reproduction is also the subject of an article on the work of reproductive physiologists Donald J. Dierschke and Edward Hauser, who recently confirmed that maturation in heifers is strongly influenced by the season of their birth.

Of interest to business and industry is an article describing facilities for the new UW-Madison Center for X-ray Lithography. As the article explains, X-ray lithography is a process for manufacturing integrated circuits, the "chips" that store and direct information on computers. The center will draw on an improved method for manufacturing the circuits provided by the university's recently-completed synchrotron radiation storage ring, Aladdin.

The current issue of Touchstone also contains information for university researchers on how to obtain patents for their inventions.

The magazine was created both to inform university faculty members about the research of their colleagues across campus, and to point out the

-more-

applications of that research to business and industrial readers, said editor Jean Lang.

Lang noted that the magazine has been in existence, in one form or another, for more than twenty years, but it recently has undergone some cosmetic changes and been given the new name, Touchstone.

Lang pointed out that many of the stories in the magazine are written by students who are training to become science writers. Thus another goal of the magazine, she said, is to give these students experience in researching and writing sophisticated stories about research and technology.

More information or a copy of the magazine is available by writing Jean Lang, editor of Touchstone, at University-Industry Research Program, Room 1215, WARF building, 610 Walnut St., Madison WI 53705.

###

Donna K. McBain (608) 263-2877/262-8282

note

From: University of Wisconsin-Madison / University News Service, 19 Bascom Hall, 500 Lincoln Drive, Madison, Wisconsin 53706
Telephone: 608/262-3571

1/14/82

Copies of the written report of the Urban Land Institute committee that studied the potential of UW-Madison's urban farmland are now available. If you would like a copy, or have one and would like more, you can pick them up at the 9th floor reception desk in the WARF Office Building, 610 N. Walnut St. Alternatively, call or write Wayne McGown, 946 WARF Office Building, Madison 53706, telephone (608) 262-3677.

The report contains recommendations on the development of the Charmany and Rieder farms along Mineral Point Road.

University News Service

feature story

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: (608) 262-3571

Release: Immediately 11/18/83

CONTACT: Constance Ahrons (608) 262-4553

DOES DIVORCE DESTROY A FAMILY?

by MARY ELLEN BELL,
University News Service

MADISON--Almost half of all marriages will end in divorce, but society still considers divorce a deviation from normal family structure.

Even the terms used in describing divorced families -- broken home, disorganized, fractured, incomplete, single parent family -- give the impression that divorce is abnormal and destructive.

But a University of Wisconsin-Madison social work professor who is conducting a five-year study of divorced couples with children says divorce doesn't necessarily destroy a family. Constance Ahrons has found that many divorced couples establish what she calls a binuclear family -- one family system made up of two interdependent households.

"The single parent family is a misnomer," Ahrons said.

"It implies that a family has only one parent, but often both parents continue to function in parental roles after a divorce. There may be two households with parents who are single, but it's only a single parent family if one of the parents has no further contact with the family."

Binuclear families can involve arrangements that often are more intricate than merely sharing child care between two households, Ahrons said. Her interviews with 98 couples one year after they divorced revealed that many former spouses continue to have "kin-like" relationships.

-more-

The relationship was termed "intimate" by 20 percent of the 28 couples who had joint custody of their children and 5 percent of the 54 couples in which the mother had sole custody. Another 30 percent of the joint custody couples and 20 percent of the mother-custody couples said the relationship was not intimate, but was generally caring, respectful and friendly. Only about one third said their former spouses were enemies.

"Traditionally, such continuing relationships have been seen as indicating unresolved marital issues, of 'hanging onto the marriage,'" Ahrons said.

"There has been a general mistrust of continuing relationships after divorce. It's assumed the feeling between former spouses must be antagonistic."

But of the couples Ahrons interviewed one year after their divorces, 85 percent said they had a continuing relationship. Most said they talked at least once a month. A third reported weekly conversations. Although the talks were about children most of the time, the couples said they also talked about things unrelated to their children, such as family and mutual friends.

One third of the mother-custody families and over half of the joint custody couples said they would want to maintain a relationship with their former spouses even if they had no children.

"These findings suggest the desire to maintain a relationship may be prevalent among divorcing couples," Ahrons said. "Friendly interactions should not be dismissed as indicating there are unhealthy or destructive attachments between former spouses."

Ahrons and her staff currently are involved in analyzing a second set of interviews recorded three years after divorce.

"These families are becoming very complicated," she said.

"More than half the participants have remarried. Twenty of them have new babies. A child in a binuclear family in which both parents have remarried has two sets of parents, eight grandparents -- more if the grandparents have been divorced and remarried -- and up to four sets of new half and step-siblings."

Analysis of the responses to the second set of interviews is incomplete, but Ahrons says her preliminary look through the material indicates that fathers who have joint custody are more satisfied that non-custodial fathers -- a difference Ahrons thinks may come about because these fathers have more to say about how their children are being raised and because of the differences in financial arrangements.

"With joint custody there's not as much money going from the father to mother because the children are living with their father much of the time. So there are fewer suspicions about how child support payments are being spent."

A number of the couples who began as mother-custody families have set up joint custody arrangements, either legally or informally, during the two years since the first set of interviews.

Ahrons says the second interviews also will reveal how remarriage complicates a binuclear family, and why the role of stepparent is so difficult and confusing, especially for women who previously had no children.

Early in the second marriage the relationship between biological mother and stepmother usually is not very good , Ahrons said.

"With children going back and forth between households, even things like how the laundry has been done can cause friction. So big problems -- differences in child rearing ideas, jealousy, role confusions -- can become very big issues."

Ahrons' findings are based on in-person interviews. Interviews one year after divorce were conducted with 98 couples. Second interviews included at least one person from 96 of the original couples, both former spouses from 80 couples and 91 new partners and stepparents. A third set of interviews -- five years after divorce -- will be conducted this winter.

The study is funded by grants from the University of Wisconsin-Madison Graduate School and the National Institute on Mental Health.

###

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Friday, Nov. 18, 1983 11/18/83

(NOTE TO EDITORS: Released simultaneously by Science Magazine.)

CONTACT: Hugh H. Iltis (608) 262-2792

UW-MADISON BOTANIST SOLVES MYSTERY OF EVOLVING CORNCOB

By JOHN M. TREACY
UW Science Writer

MADISON--Modern ears of corn evolved at breakneck speed from the small branch tassels of corn's Mexican ancestor, a University of Wisconsin-Madison scientist has concluded.

Botanist Hugh H. Iltis said the sexual transformation of the male tassels into female corn ears was a stunning and unexpected evolutionary achievement.

In an article to be published in next Friday's (Nov. 25) Science Magazine, Iltis explained that corn's ancestor is a variety of Mexican teosinte, a many-branched grass whose similarities to corn have long been noted. The assumption of most botanists had been that teosinte's tiny ears had somehow evolved into the massive ones of corn.

Iltis said in the article, however, that it was teosinte's male tassels, not its female ears, that went through cataclysmic changes in structure, size and sex to become corn ears.

"This type of dramatic structural change occurs very rarely. Moreover, the change occurred over five or ten generations -- an unheard of evolutionary speed," Iltis said in an interview.

Corn's sudden emergence, about 8,000 years ago in southern Mexico, shows

-more-

that structural evolution can move extremely fast even without major genetic changes, he said. The process may offer clues to the origins of other evolutionary "inventions," he added.

Iltis' theory, called "catastrophic sexual transmutation," answers most of the puzzling questions regarding corn's clouded past.

Botanists have suspected for about a century that corn evolved gradually from teosinte, but no intermediate types had been found in nature or the archaeological record. Then, in 1971, Iltis identified annual Mexican teosinte as a subspecies of corn. Seven years later he and his colleagues discovered a perennial teosinte species in Mexico with 20 chromosomes, the same number as corn.

According to Iltis, this emphasized that the two plants were practically identical and that no "missing links" were needed to account for corn and teosinte's similarities.

"Teosinte is corn," Iltis explained. "Cover up the ears of teosinte and it takes a specialist to tell them apart." The ears, however, are very different.

Teosinte's tiny ears have two single rows of six to twelve hard-shelled grains. A modern corn ear has many rows of hundreds of large, soft, exposed grains.

The major riddle was this evolution of the corn ear, a "magnificent anomaly" as Iltis called it.

"It was hard to conceive how such a massive monster as the corn ear could have sprung forth from such a tiny, fragile mouse" as the teosinte ear, Iltis said.

He observed that today's corn ears are borne at the tips of short, stout branches called shanks that emerge from a main stem. Teosinte's ears, however, are borne all up and down long secondary branches that are tipped by tassels.

"If the terminal modern corn ear evolved from the lateral teosinte ear, it

would have been unlikely structural acrobatics," Iltis said, pointing out that a modern corn ear is not even close to the positions of teosinte's ears.

Iltis came to the conclusion that it was the central spike of the teosinte tassels, not the ears, that turned into today's large corn ear.

"Any supermarket sweet corn, if not trimmed, will be tipped by several male floral parts as kind of an evolutionary reminder," Iltis said.

The sexual change could have been triggered one of several ways, he said, including fungus infection, mutant genes or cold nights and short days. Whatever the reason, it caused the male tassels to become female, and caused the long branches of teosinte to telescope inwards to become the short shanks of corn.

Similar sexually-related changes in corn have been observed in laboratory experiments, Iltis noted.

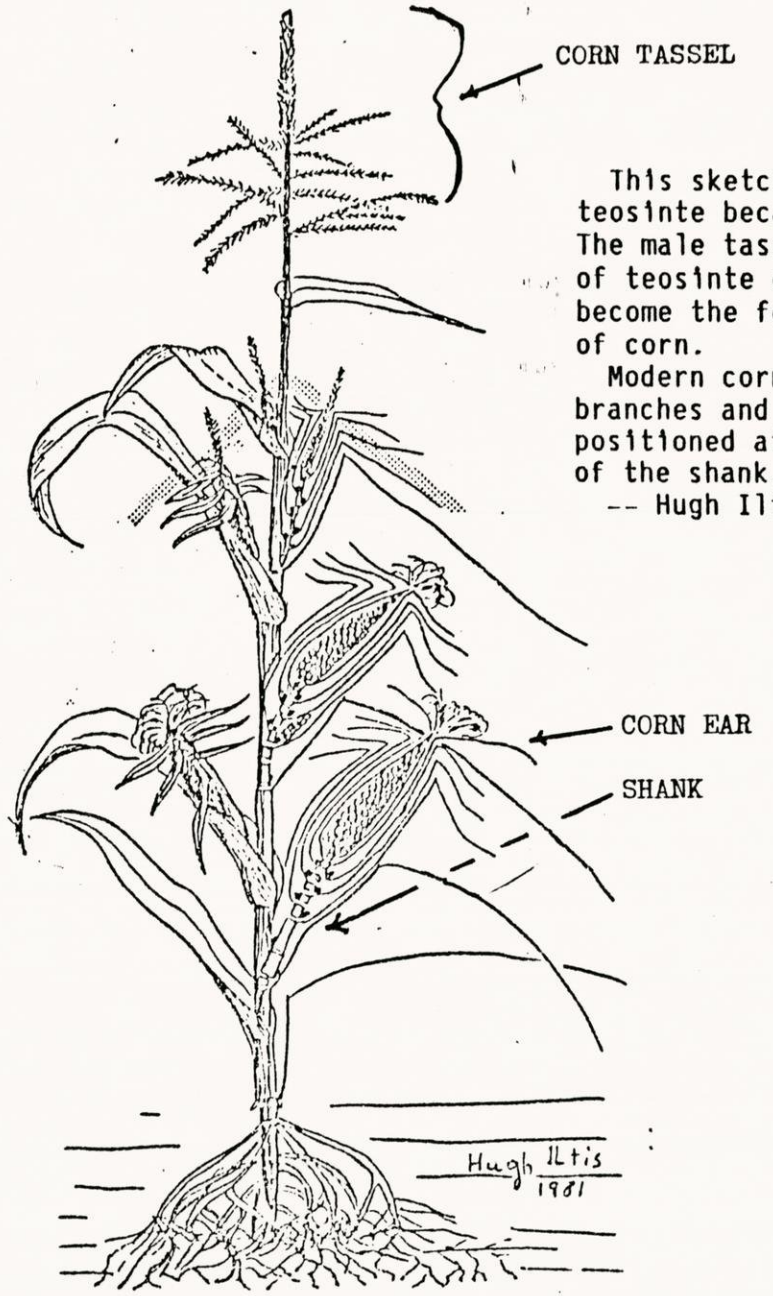
"The sexual transmutation caused the tassel spike to become a nutrient-demanding 'dictator,'" Iltis said.

The plant's now-female tassel spike marshaled nutrients at an enormous rate, making it twist and swell into a form resembling the modern corncob. Teosinte's original ears shrank and withered away.

"Had the ancestral teosinte died out, we would have been quite unable to reconstruct its remarkable evolution," he said. He argued that wild plants, especially those related to our crop plants, should be preserved to help botanists solve evolutionary mysteries.

###

TEOSINTE



CORN

This sketch shows how teosinte became corn. The male tassel spike of teosinte evolved to become the female ear of corn.

Modern corn has short branches and the ear is positioned at the end of the shank.

-- Hugh Iltis sketch

For more, see: WI. For Research

uw news

From the University of Wisconsin-Madison / News Service, Bascom Hall, 500 Lincoln Drive, Madison 53706 / Telephone: 608/262-3571

Release: Immediately 9/24/81 jhs

CONTACT: Wayne F. McGown (608) 262-3677

LAND USE INSTITUTE TO STUDY UW'S MADISON FARM PROPERTIES

MADISON--The long-term fate of the University of Wisconsin-Madison's farmland holdings on Madison's west side will be the subject of an intensive, week-long study by a land use institute based in Washington, D.C., the University has announced.

The study, involving about 406 acres of the Charmany, Rieder and Mandt properties located along Mineral Point Road, begins Sunday (Sept. 27) and ends the following Friday morning with a public report.

At issue is what to do with the three farms as Madison's westward growth increases their cash value and brings into question their use as agricultural research and teaching facilities. Suggestions so far have ranged from residential development to office buildings and an industrial research park.

Wayne F. McGown, a special assistant to Chancellor Irving Shain, said the $50,000 study will be conducted by a team of nine consultants from the Urban Land Institute, a nonprofit research and education group. Founded in 1936, the institute was begun as a cooperative venture to investigate land development and planning standards. In recent years it has organized a consultant service which draws on its members for expertise.

The study of UW-Madison's urban farmland was commissioned by the UW Foundation, McGown said, and will be paid for by a grant from the Oscar Rennebohm Foundation.

- more -

The nine institute consultants are expected to interview nearly four dozen people, including civic leaders, legislators, city and county officials, University administrators and regents, bankers and land planners.

The institute team has been charged by the University with answering four basic questions:

--What program would produce the "highest and best use or uses" for the land that would maximize the long-term educational and financial benefit to the University while fitting the needs of the Madison community;

--What kind of land planning is needed to do it;

--What kind of markets exist for the land; and

--What kind of action--"political, financial, organizational and technical"--is needed to carry out the program.

In addition, the University wants to insure that the College of Agricultural and Life Sciences is "made right" for the loss of the farms, and would prefer that any plan provide a long-term "endowment" similar to the sell-off of the Hill Farm property some 25 years ago.

Members of the Urban Land Institute's consulting team serve without pay, according to officials, and the $50,000 goes to cover travel expenses and the costs of producing the report. The balance goes into the institute's research fund.

McGown said the University asked for opinions on the institute's work from about two dozen prior clients, including city governments, private companies and at least one state. "I've got nothing but glowing recommendations," he said.

Heading the consulting team will be Michael F. Kelly, president of The Center Companies, Minneapolis. Other members will be:

Robert A. Hatch, senior vice president of Coldwell Banker Commercial Brokerage Co., Los Angeles; Benjamin T. Lake II, president of Olin-American Inc., Pleasant Hill, Calif.; Bruce P. Hayden, president of Hayden Associates Inc.,

Bloomfield, Conn.; Robert M. O'Donnell, president of HOH Associates Inc., Denver; Robert W. Siler Jr., president of Hammer, Siler, George Associates, Washington; Leslie A. Smith, president of Ben Dyer Associates Inc., Seabrook, Md.; Joan Manor Walker, president of Property Consultants Inc., Northfield, Ill.; and Wayne S. Doran, board chairman of Ford Motor Land Development Corp., Dearborn, Mich.

If one of the consultants is unable to serve, John H. Dugan, a consultant with American Land and Life Stock Co., would substitute.

Urban Land Institute was picked to do the study by an eight-member UW-Madison Land Development Advisory Committee headed by Shain, according to McGown. The committee, with members from UW Foundation, Wisconsin Alumni Research Foundation and the Board of Regents, was formed to advise the University on the farmland question.

All three parcels involved lie south of Mineral Point Road: a 143-acre portion of the Charmany Farm west of Whitney Way, the 111-acre Rieder Farm east of Whitney Way, and the 152-acre Mandt Farm west of the County Trunk M intersection. UW Foundation property at County Trunk M and Raymond Road also might come under consideration.

The consulting team's agenda calls for members to be greeted Sunday evening by Madison Mayor Joel Skornicka, County Executive Jonathan Barry and state Sen. Fred Risser, D-Madison. A briefing session and a city bus tour is scheduled Monday. The interviews are slated all-day Tuesday and Wednesday morning. The team expects to have its findings ready in time for a 9 a.m. oral report Friday at the Jacob F. Friedrick Center, 1950 Willow Drive. A formal, written report will be compiled for delivery to the University later.

- o -

(NOTE TO EDITORS AND NEWS DIRECTORS: The 9 a.m. Friday report session is open to the press. It is expected at this time that the consulting team will be answering questions from the floor.)

###

Announcing

FITCHBURG RESEARCH PARK*

adjoining

MADISON, WISCONSIN

The first research park in Wisconsin

Johan Bjorksten, Ph.D.
President

***A division of Bjorksten Research Laboratories, Inc.**

Offering land developed exclusively for research laboratories constructed to your needs, on lease ten years or longer.

Located on Fish Hatchery Road, Madison, Wisconsin

15 minutes to the University of Wisconsin

15 minutes to the Capitol

20 minutes to the Madison Municipal Airport

FITCHBURG RESEARCH PARK

Mailing address: P. O. Box 265, Madison 1, Wisconsin

Telephone: Area code 608 ALpine 6-6808

Copy

Bjorksten RESEARCH LABORATORIES, INC.

MADISON, WISCONSIN • HOUSTON, TEXAS • DAYTON, OHIO • WASHINGTON, D. C.

CABLE ADDRESS
"MUTUS, MADISON"

POST OFFICE BOX 265
MADISON 1, WISCONSIN
TELEPHONE ALPINE 6-5581

January 18, 1963

Honorable John W. Reynolds
Governor of Wisconsin
Madison, Wisconsin

Dear Governor Reynolds:

Subject: Proposed Research Park, etc.

Before me is a copy of a report to your predecessor on "Scientific Research and Industrial Development" by the Wisconsin Department of Resource Development. We are vitally concerned with this subject because we have done at our own expense, in Madison, exactly what this report says should be done at public expense.

What this report proposes is not in the interest of the State of Wisconsin, because it seems impractical and perhaps even unethical to use public funds to set up a nontaxable organization for doing work which is now being done by a taxpayer at no cost to the public, and which on the contrary is bringing to the State of Wisconsin both direct and indirect taxes as well as funds helping support the local economy. We submit that public funds should not be used for competing with a taxpayer. If more emphasis and stimulation of research are your object, there are better ways as will be shown below; ways that produce an income to the State while accomplishing what the report views as desirable.

Bjorksten Research Laboratories was founded 19 years ago, and has been in Madison 15 years. During this time we have handled $9,000,000. worth of research contracts, both applied and fundamental; about half of this for industry and half for the U.S. Government.

This work has embraced the entire range of research in chemistry and a broad range of physics and biology, ranging from chewing gum to steel alloys, from plastics to microbiology, from radar to radio isotopes, from rocket propellants to medicines and plant hormones, from literature compilations to the construction of pilot plants.

Nor has our work been sterile.

Three successful manufacturing companies with sales in millions have resulted from our efforts. A pilot laboratory for engineering production of foamed metals has been built in Madison, and seems likely to develop into a large industry. One hundred twelve patents have issued and many more are pending. A large milling firm among our clients has stated that we have saved them a million dollars; almost all of our growth has resulted from recommendations of satisfied clients.

For 15 years Bjorksten Research Laboratories has also done research and development work for the U.S. Government including work for the Air Force, Navy, Army, Department of the Interior and Atomic Energy Commission. Much of this work and some of the finest results are still surrounded by security restrictions, but we can mention that alone the systems we have introduced and pioneered for making water-resistant bonds between glass fiber and plastics have saved the Government many millions and industry many millions more.

Our organization has been developed from a starting capital of $5,000. and 19 years of unremitting work. We bought and paid for our land -- 175 acres just outside Madison, our buildings -- 7 of them, and versatile equipment. We have paid our taxes and have not asked for favors.

With 19 years of experience and the present facilities, we are now in a position to take on almost any assignment in chemistry and a wide range in physics, biology and engineering. We have excellent working relations with members of the University staff and with our neighbors and friends at the Forest Products Laboratory, the Wisconsin Alumni Research Foundation and the Barley and Malt Research Laboratories. Specifically, we are in a position to handle, and are now handling in Madison the type of work, both applied and basic, which is mentioned in the report to your predecessor.

We submit that it would not be advantageous for the State of Wisconsin to help finance or support an organization to compete with an existing taxpayer who is ready to handle contract research and development both basic and applied not only for Wisconsin but for other states as well; who has now sizable land suitably located at Madison and who is using his own and other locally available supporting facilities and university consultants on those occasions when this is helpful.

If a group of men desires to enter this field of business, let them pay their own way as we have done.

If you wish to increase the utilization of scientific research in Wisconsin, may we suggest that you consider the following steps:

1. Let the State sponsor research contracts for work on problems which will help Wisconsin. We are now working on $60,000. in contracts with the State of Nebraska to find new industrial uses for corn products -- and this is a small fraction of the funds the State of Nebraska uses in this way. Suitable problems for Wisconsin State research might be for example:

New industrial uses for milk casein
Chemicals from peat
Use of paper industry waste products by microbiological conversion methods
Improvement of concrete mixes for roads
Making industrial proteins directly from alfalfa.

Honorable John W. Reynolds
Madison, Wisconsin

January 18, 1963

This research should be awarded to the best qualified and most competent bidder within the state, on terms negotiated in accordance with the needs of the project. If you want to maximize the effect of this program on Wisconsin research, please consider setting up the contracts so that they do not call for a fixed monthly effort, but leave the contractor free to suspend work when otherwise very busy, and increase the effort during slow periods so that it will have a leveling effect on his work load. This would materially strengthen Wisconsin research in the competition for out-of-state research assignments.

2. Set up a fund for research risk insurance for small firms. This is the only way in which you can get small business to participate in research on a sound basis. The odds may be 10:1 that any given research project will fail. Financing one or two research projects only is the rankest of gambles. A careful small company cannot afford to take this risk. A big company which has numerous projects can do this because the profits from one project that succeeds will cover the cost of the failures.

However, if the small company could take out insurance with a State agency for, say, 80% of the research risk, then they could afford research on quite a scale in the aggregate and might benefit hugely and soundly. The agency might be made self-supporting by collecting some royalty on the successful projects.

3. Set up an agency for leasing major expensive equipment to Wisconsin firms for research. This would make us much more competitive on Government contracts. For example, we get a request for proposal requiring a "Whatchaclan" costing $100,000. We have no other use for it. The contract goes to General Electric or perhaps M.I.T. Nobody in Wisconsin can compete because of lack of the critical piece of equipment.

If we could call a Wisconsin State Research Equipment Agency and get assurance that we can use the instrument for a year at, say, $10,000. if we get the contract, we could bid on a much broader range of contracts and bring them to our state. This too could be made self-supporting by charging reasonable fees.

4. Publicize Wisconsin research needs, facilities already available, and particularly accomplishments.

Respectfully yours,

BJORKSTEN RESEARCH LABORATORIES, INC.

Johan Bjorksten
President

JB:mp

The State of Wisconsin

EXECUTIVE OFFICE
MADISON 2

JOHN W. REYNOLDS
GOVERNOR

April 8, 1963

Dr. Johan Bjorksten
President
Bjorksten Research Laboratories, Inc.
P. O. Box 265
Madison 1, Wisconsin

Dear Dr. Bjorksten:

This is to acknowledge your letter of January 18, 1963 on the subject of a proposed research park such as that which came from recent discussions conducted by the Wisconsin Department of Resource Development, University of Wisconsin, and other agencies.

I was very happy to get your communication and your views. I wish to compliment you for the fine research laboratory which you have set up and for the successful results you have achieved for your client.

Please be assured that it is not the purpose of the State of Wisconsin through the Wisconsin Department of Resource Development, or any other agency as far as I can determine, to provide a research development program which will be injurious to your kind of activity. At the present time the University of Wisconsin is taking the lead in formulating policies on development of research centers and the Wisconsin Department of Resource Development is engaged in some conversation with the University in order to present a unified program. Your views certainly will get the highest consideration and if any proposal is made, comments will certainly be welcome.

I know the Wisconsin Department of Resource Development will want to study and give careful consideration to the suggestions you have made for assisting private research agencies such as yourself, handle a better volume of work and also be able to use critical pieces of equipment which a smaller research agency probably cannot afford. We will certainly want to consider this as a part of an over-all research program.

I am sure that the people of Wisconsin should know more about your laboratories because if they did the various industries in the State, I am sure, would take more advantage of it.

Thank you for your welcome comments.

Sincerely,

John W. Reynolds
G O V E R N O R

JWR:z/b

Restrictions Applicable to Fitchburg Research Park

1. The lots, or portions thereof, in Fitchburg Research Park shall be used as sites for research laboratories, office buildings, or light industrial structures of the same dignified character.

Such use ordinarily involves only light equipment, is conducted only within enclosed substantially constructed buildings, does not involve the open area around such buildings for storage or otherwise other than loading or unloading operations in the rear, and is not noxious or offensive by reason of smoke, dust, gas, fumes, odors, noise or vibrations beyond the confines of the building.

No residential dwelling shall be permitted on any lot or portion thereof unless authorized in writing by the Fitchburg Research Park Administration.

2. The building set-back line is 100 feet from the highway right-of-way at Fish Hatchery Road. It is 55 feet from the street right-of-way at all other streets. The minimum distance from any portion of any building to any side or rear lot line shall be 25 feet, provided always that if the building plot is larger than one lot, a building may be located on or across a side lot line.

3. No building shall be erected, placed or altered on any lot or portion of any lot until the construction plans and specifications and a plan showing the location of the structure have been approved by the Fitchburg Research Park Administration.

4. No noxious or offensive activity shall be carried on upon any lot, or upon any portion of any lot, nor shall anything be done thereon which is or may become an annoyance to the neighborhood. The purpose of this subsection and its intent is to provide that research and related light industrial activities shall be established and maintained with proper appearance from streets and adjoining properties and to provide that each such permitted use shall be a good neighbor to adjoining properties by control of emission of noise, odor, glare, vibration, radiation of any kind, smoke, dust, liquid or solid wastes, and the like.

5. Billboards or other advertising signs other than those identifying the name and business of the person or firm located on the premises shall not be permitted.

6. Outside storage of any materials, supplies or products shall not be permitted within any yard unless such storage is properly screened so as not to be visible from any property line.

7. Yards are to be landscaped attractively with lawn, shrubs, ponds, trees, et cetera. Any areas left in a natural state shall be maintained in a well kept and attractive condition.

8. Parking areas shall also be maintained in a proper and attractively appearing condition.

9. The foregoing restrictions shall constitute covenants running with land and shall be binding upon all lessees or persons claiming any interest in any way in Fitchburg Research Park. They shall continue and remain in effect until July 1, 1988, and shall then be automatically extended for a period of ten years unless there is recorded in the records of Dane County, Wisconsin within the six-month period ending July 1, 1988 an agreement executed by a two-thirds majority of the owners and lessees of property at Fitchburg Research Park terminating these restrictions.

10. Invalidation of any of these covenants by judgment or court order shall in no way affect any of the other provisions which shall remain in full force and effect.

11. Any question, dispute or misunderstanding arising out of or in connection with these covenants shall be referred to arbitration before some competent person who shall be agreeable to the Lessee and to the Fitchburg Research Park Administration. If they fail to agree on such a person, arbitration shall be had before a single arbitrator appointed by the American Arbitration Association, and under the rules and regulations of that association.

Approved

_____(Lessee)

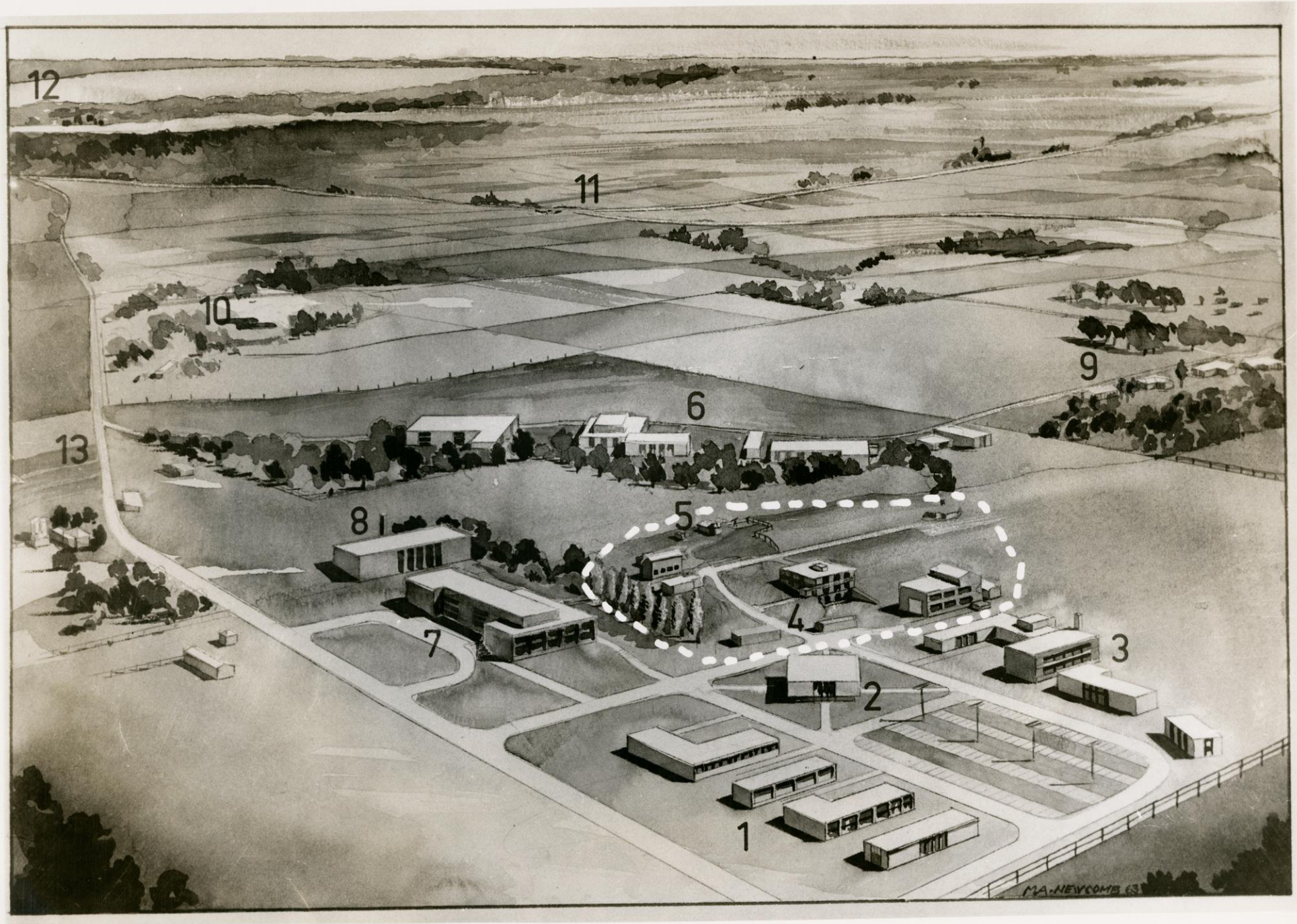
By

Attest

Fitchburg Research Park

By

Attest


12
11
10
9
6
13
8
5
4
7
3
2
1
A
MA. NEWCOMB 63

Architect's rendering of tentative plan
FITCHBURG RESEARCH PARK
Madison, Wisconsin

North

Aerial Photo of
FITCHBURG RESEARCH PARK
in relation to University of Wis.

NOTE

FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

Bjorksten Labs
ab 6-5581
Brochure for promotion
of Research Park

To go with
Bjorksten
Brochures
to

Bill Palmer
Bozell + Jacobs
700 Kiewit Plaza
Omaha 31, Nebr.

Repost on Industry Relations
from faculty 2/4/63
Story of U's report to
Regents (Jan?)

Industrial Research Park

U. W. NEWS FROM THE UNIVERSITY OF WISCONSIN NEWS SERVICE, MADISON 6, WISCONSIN

1/14/63 rt

RELEASE: Immediately

MADISON--A special University of Wisconsin faculty committee recommended Monday that the University build closer ties with Wisconsin industry, encourage the development of a research application and design facility, and explore the advantages of a "research park."

The committee's recommendations were in line with those made Friday by UW Pres. Fred Harvey Harrington, though he stressed that the application facility and the "research park" should be initiated and financed by industry.

Both he and the committee agreed that the University should establish an administrative organization that would facilitate University-industry cooperation and communication.

The committee's recommendations on the research institute and research park were worded as follows:

1. In cooperation with Wisconsin financial, commercial, and industrial establishments, (the University should) encourage the development of an application and design facility, probably located in proximity to a university but organizationally separate. The purpose of this facility would be to provide applied engineering service and testing, principally to small companies which could not support such staff and facilities of their own.

2. In cooperation with industry, (the University should) explore the advantages to industry of having its new or expanded research and development activities located in a "research park" near a university so that there could be greater contact between applied and fundamental research.

-more-

As Pres. Harrington earlier stated, the committee indicated that the University's strength is in fundamental research and that applications are mainly the province of industry. But the committee added:

"Public service and fundamental research within a department or college are not mutually exclusive, witness the singular accomplishments of the College of Agriculture in both areas."

The objective of the University in this regard, the committee said in its report to the faculty, is "to cooperate with Wisconsin agriculture, banking, commerce, and industry to create a scientific base and milieu within the state that will preserve and expand the state's industrial, commercial, and agricultural stake in national and international commerce and trade, as well as in the health, space, and defense activities of the federal government."

The committee, appointed by the late Pres. Conrad A. Elvehjem in April, 1962, has since been studying the possible ways in which the University can enhance the state's economy. Monday's progress report centered on these points:

"Technical and scientific knowledge is expanding at an ever accelerating rate;;the results of pure research are influencing applied research and product design engineering in sharply contracting time intervals; and as a result, whole new industries are constantly moving into the national economy.

"A state can share in this exploding economy only if it has adequate scientific, technical, and management personnel, and a solid base of scientific laboratories necessary for developing new ideas and techniques.

"The common welfare of the people of Wisconsin, the industry and commerce of the state, and the University itself, requires the University to expand its cooperation with industry and commerce substantially beyond the degree of cooperation which has existed in the past so that its relationship with industry and commerce will become as effective as its relationship with agriculture."

###

File: Research Park

University Research Park

Madison Community Tower

MADISON, WISCONSIN

What is the Madison Community Tower?

The Madison Community Tower was developed by the University of Wisconsin System because an existing university tower limited the development of University of Wisconsin–Madison's University Research Park. The tower was designed to accommodate a variety of public and private broadcast and two-way radio users in order to reduce the number of towers needed on Madison's skyline. The State and various tower users have between $10 million and $11 million invested in the tower.

Where is Madison Community Tower?

The tower is located west of Madison on university research farms property at 8559 Mineral Point Road, Verona, Wisconsin. The tower is owned by the State of Wisconsin and is leased to University Research Park Facilities Corp.

The Coordinates for the tower are: 43° 03' 20.568" North
89° 32' 05.90" West
The tower base is located at: 1,126' Above Mean Sea Level

How tall is the Tower?

The tower is 1,423 feet tall, which is 50 feet shorter than the Empire State Building. Wisconsin has at least six other towers which are taller. A two-person maintenance elevator in the tower travels 1,258 feet.

The tower is about one-third higher than previous Madison towers. The additional height expands the tower users' broadcast range and improves the radio and television signal quality for those communities in southern and central Wisconsin which are in their broadcast area.

How strong is the Tower?

The tower was designed and constructed by Kline Towers of Columbia, South Carolina. The tower and guy wires weigh 660 tons, the approximate weight of 400 automobiles. The tower can hold 112 tons of equipment and platforms. The triangular tower with 12-foot sides meets national standards which require that it withstand 85 MPH winds without ice and 74 MPH with ½ inch of radial ice.

There is the equivalent of 2⅛ miles of sidewalk in the concrete foundation and guy anchors. The load on the base of the tower is 3,324,000 pounds.

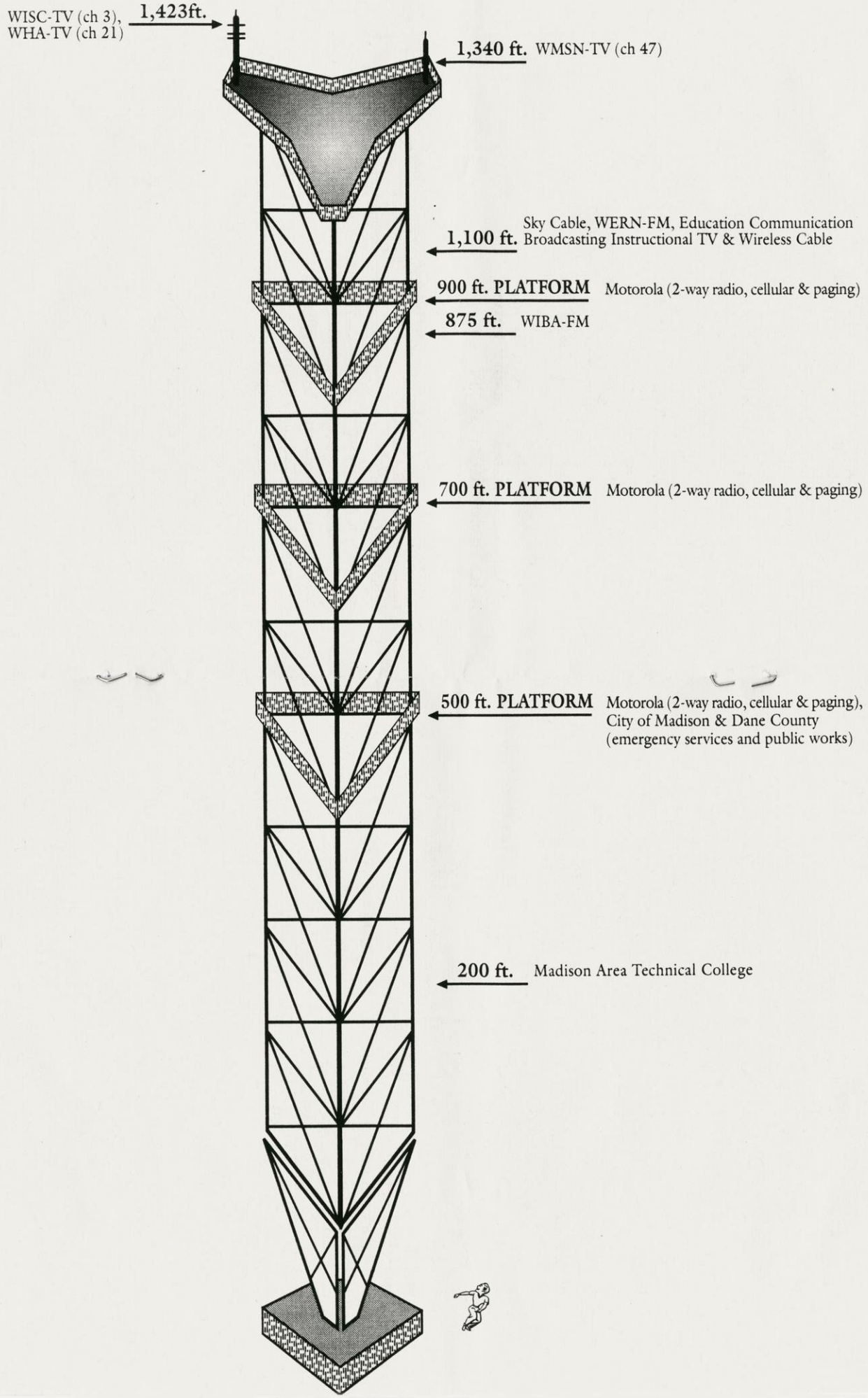
There are 5.5 miles of 2¾ inch guy wires supporting the tower. Each guy wire can support the weight of approximately 283 automobiles. If individual strands of the guy wires were laid end to end, they would stretch from Madison, Wisconsin to Washington, DC. The tower has 15,300 individual pieces of steel and 24,500 fasteners.

What is located on the tower and in the buildings?

The buildings house the transmitters for every station with antennas on the tower. Transmitters are equipment which make it possible to process radio and television signals from television and radio studios into broadcast signals to the general public.

There are six basic types of equipment installed on the Madison Community Tower: point-to-point microwave antennas, microwave reflectors, broadcast antennas, stand-by antennas, paging and dispatch antennas, and ground–level satellite dishes.

Channels 3, 21 and 47 are broadcasting television signals from the large antennas at the top of the tower. Channel 47's antenna is on the SE tower leg. Channel 3 stacked their antenna on top of Channel 21 on the NE tower leg. There is room for one additional broadcast antenna on the W tower leg.


WISC-TV (ch 3),
WHA-TV (ch 21)
1,423ft.
1,340 ft. WMSN-TV (ch 47)
1,100 ft. Sky Cable, WERN-FM, Education Communication Broadcasting Instructional TV & Wireless Cable
900 ft. PLATFORM Motorola (2-way radio, cellular & paging)
875 ft. WIBA-FM
700 ft. PLATFORM Motorola (2-way radio, cellular & paging)
500 ft. PLATFORM Motorola (2-way radio, cellular & paging), City of Madison & Dane County (emergency services and public works)
200 ft. Madison Area Technical College

Antennas and dishes at approximately the 1,000 ft. level are for Sky Cable television which broadcasts to various subscribers with receive dishes; Wisconsin Public Radio member station WERN-FM; and, Educational Communications Board (ECB) which provides educational programming to school districts. ECB also has receive dishes at the 200 ft. and 500 ft. levels to receive programming from Madison Area Technical College-Janesville and the Educational Communications Board Operations Center.

Platforms at 700 ft. and 900 ft. are being used exclusively by Motorola to service a variety of two-way radio, cellular phone, paging and dispatch services. The National Weather Service and WIBA-FM also have equipment at the 900 ft. level.

The 500 ft. platform is primarily used by the City of Madison and Dane County for public safety, public works and public transit broadcast activities. Motorola also has equipment at this level.

Does the Tower have governmental approvals for all activities?

Yes. The Town of Middleton and Dane County provided the necessary zoning approvals. The Wisconsin Department of Transportation and the Federal Aeronautics Administration approved the height of the tower at this location and the dual lighting system of white strobe and red lights for the tower. The Federal Communications Commission provided each station with approval to broadcast from this location. All of these governmental approvals ensure that the tower is safe for air traffic and the general public.

Does the Madison Community Tower meet national safety standards?

Various government agencies also have set standards for the transmission of radio and broadcast signals. This tower was designed to conform to Occupational Safety and Health Administration and the American National Standards Institute standards for broadcast signals which have been adopted by the Federal Communications Commission. Theoretical broadcast patterns are designed, reviewed and approved. Governmental approvals also require that actual broadcast patterns be measured at the start of broadcast operations.

How long was this tower in planning and construction?

The tower took 12 months to construct and install equipment during 1994–1995. State financing and a design/construction contract for the project was approved in 1989–1990. Governmental approvals for the tower were obtained in 1984. Initial discussions about relocating the tower from University Research Park to the West Madison Farms occurred in 1981.

Who do I call for further information?

- University Research Park Facilities Corp.: 608–262–3677.
- Wisconsin Educational Communications Board:
  television engineering: 608–264–9636
  radio engineering: (WERN-FM): 608–264–9748
- Sky Cable: 608–271–6999
- Motorola: 708–538–6300
- City of Madison/Dane County: 608–266–4767
- WHA-TV: 608–263–2131
- WIBA-FM: 608– 274–5450
- WISC-TV: 608–271–4321
- WMSN-TV: 608–833–0047

University Research Park
University of Wisconsin-Madison

University Research Park

TENTH ANNIVERSARY
1984⇒1994

PARKLINES 1 2 3 4 5 6 7 8 9 10

Fall 1994

A decade ago, University Research Park was established by the University of Wisconsin Board of Regents. Today one can look back on ten years of Park growth and maturity and see a number of objectives being realized. Opportunity for the transfer of technology to the private sector from basic research developed at the University is being created. Employment for a wide variety of scientists, technicians and others is increasingly available. And finally, the business economy of the City, the State and the region is being enhanced. It was exactly these results that were hoped for when the Park was begun in 1984, with little more than an idea, some raw land and the determination and skills of a handful of individuals.

This Anniversary issue of **PARKLINES** *portrays some of the significant events that have occurred along this ten year timeline and recognizes the contributions of certain key people who have given leadership and impetus to the Park's development during this period.*

What of the future? Steps are currently underway that will lead to the opening of an additional 200 acres for Park development in 1995. Based on the results of the past ten years, this expansion promises a growing base of economic support for research at the University and the opportunity for the University, the State of Wisconsin and the City of Madison to continue their leadership as places where research and the creation of technological invention are given tangible support.

THE UNIVERSITY RESEARCH PARK'S TENTH ANNIVERSARY

1984 ⇨ 1994

1984

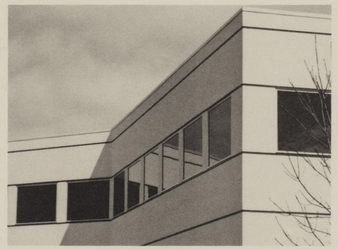
- Final approval by Regents and State of Wisconsin
- University Research Park Corporation is formed
- Trustees are named

1985

- Warzyn constructs first building
- Initial infrastructure is completed

1986

- Persoft constructs second building in Research Park



1987

- University Research Park board creates the Science Center

1988

- First Science Center building occupied

1989

- Three additional Science Center buildings constructed
- The MGE Innovation Center is established

1990

- Parkway Hospital/Park West I and two more Science Center buildings are con structed
- Park receives Orchid Award by Citizens Group for Quality of Development

1991

- A fiber optic connection to campus is estab lished
- Construction of Ultratec/Daycare Center and a Science Center building

1992

- Completion of the Science Center complex
- Gift of 25% of the Science Center by Douglas Frakes

1993

- $990,000 in city property taxes paid by Park tenants
- Park West II construction
- Park assumes tv tower relocation project
- Dane County Small Business Advocate of the Year Award

1994

- Park ranked in the top third of U.S./Canada research parks
- Plans are completed for Charmany expansion
- Four new research buildings are under construction

WAYNE F. MCGOWN

We asked University Research Park Director Wayne McGown to share his reflections on the development of the Park as we celebrate this tenth anniversary. McGown has served continuously as the Director of University Research Park from the very beginning of its planning phases in the early 1980s. He brought to the project a longtime background in public administration, both in the University and in state government under several gubernatorial administrations. His many roles in the state included serving as state budget director and as secretary of the Department of Administration under Governor Warren Knowles. He is intimately familiar with the workings of the University by virtue of being Special Assistant to the Chancellor, a position he has held during several campus administrations. The continuity and leadership he has brought to the development and operation of the Park has been instrumental to its success. His comments and observations follow:

University Research is an outgrowth of two critical factors that came together in the early 1980s. First, the University owned a large piece of pastoral land that had become surrounded by urban development, making it less suitable for agricultural research. Second, the City of Madison determined its economic future would be well served by attracting high-tech, research-oriented companies. The concept of a research park met the challenges posed by both circumstances. There were other options, of course. Developers were beginning to see the value of this land for development, and were starting to propose single projects. To his credit, Irv Shain, who was chancellor at the time, resisted piece-meal development and secured gift funds to hire the Urban Land Institute(ULI) to make development recommendations on the entire property.

ULI's recommendation for a multi-use development, including a research park component, was accepted by the Regents who asked the UW-Madison administration to prepare a detailed plan based on the ULI concepts. Chancellor Shain asked me to spearhead the planning effort.

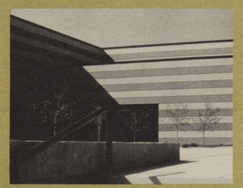
We organized a joint City-University Committee that I co-chaired with the city planning director. Appointments to the committee were made by the Mayor and the Chancellor and represented a good cross-section of the community, including the League of Women Voters, the Chamber of Commerce, the affected neighborhood associations, the City Council, university leadership and others. The thoroughness of the committee's work, which went on over a year, is evident in the fact that the project was subjected to more than 35 policy-level votes by various government agencies without one negative vote.

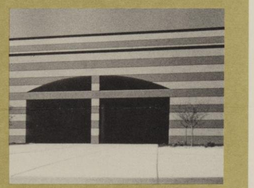
Today the Park operates under a corporate structure with a ten-member Board of Trustees whose members serve without pay and at their own expense. This group of business, civic, and university leaders has provided a quality of leadership and consultation that has been most significant in guiding the development of the Park.

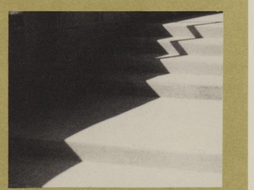
The most significant challenge faced in the early days was financial. The park received no state appropriation to underwrite its development and its infrastructure was not funded in any way by the City (unlike research parks in many other communities throughout the country). We were fortunate to have some early transactions to help the cash flow and eventually lead to financial stability.

The Trustees made an early decision that they would develop the Park themselves, on behalf of the University, rather than contract with a private developer. That decision was compatible with the goal of dedicating all net proceeds from the Park to the University. By developing the Park, the trustees hoped to achieve an

continued







IRVING SHAIN

Several months ago former Chancellor Irving Shain presented a paper at a meeting of the Madison Literary Club. The paper dealt with a wide range of issues related to technology transfer, i.e., the commercialization of inventions created at U.S. universities and the demands on universities to contribute to the economic development of their communities and the nation as a whole. One segment of the paper addressed the role of University Research Park in helping the University of Wisconsin - Madison respond to that demand. Shain spoke about the early days of the Research Park and some of the challenges that were faced and met.

During the early 1980s Shain, then chancellor of the University of Wisconsin-Madison , conceived the idea of the creation of a research park by the university. Since the park's founding, he has continued to play a creative and nurturing role in its development and serves as an officer on its Board of Trustees. Parklines felt that its readers would be interested in reading some of Shain's comments. The following is an edited version of that part of the paper that relates to University Research Park:

...Many universities across the nation have tried to create an income flow by developing surplus real estate. The challenge was to find a suitable use for the land that would create an income flow for the institution. Technology transfer was becoming an important issue at the time, and research parks seemed to provide a real opportunity.

University officials had overly optimistic views of the potential for attracting companies to their new research parks and for the opportunities for technology transfer between the campuses and the business world. They dreamed about all the money that would flow from renting space on a site close to the university. During the past ten years more than 150 university related research parks have been started, but only a few are much more than the vacant land with which they started.

I wish I could claim to have thought of the concept of University Research Park as fully developed in its current form. My original motives were the same as university administrators at other universities: to generate income for the institution. We were a few years ahead of them, but that was caused by several unique driving forces.

The research park site consists of lands that were once parts of the College of Agricultural and Life Sciences (CALS) experimental farms. These farms had been purchased when the area was in rural Dane County. Over the years, of course, the area around the farms became urbanized, which led to difficulties, especially conflicts with the surrounding residential neighborhoods.

For instance, a problem arose when houses were constructed along the back of the Reider farm. CALS used a standard farming practice of spreading manure on the fields during the winter, on the theory that the snow would cover the material, and it would fertilize the ground during the spring as the snow melted. One January, the day after fresh manure had been spread liberally on the fields, the temperature hit a record 57 degrees. I can still remember the phone in the Chancellor's office ringing off the hook, as neighbors called to complain. From that day on, I knew that farms did not work well in residential areas and I tried to plan for alternative uses.

In my view, that land was part of the University's endowment. Many private universities have large endowments that provide steady income to fund all kinds of programs. We have some funds of that type, such as the WARF and the Vilas Trusts and the funds held by the UW Foundation, but these are never enough. Oscar Rennebohm realized this when the Hilldale Shopping Center was created, and the University benefits significantly every time groceries or a pair of socks are bought in any of those stores.

continued

Wayne F. McGown *continued*

endowment for the University more quickly. They adopted a policy of only leasing land to tenants, thereby keeping it in perpetuity for the benefit of the University.

The many potential benefits and contributions of University Research Park are now coming into focus. Much of the effort to this point has been real-estate related with an emphasis on the quality of development, which has been and continues to be well received by the City, the County, the University, the Park's neighbors and, perhaps most importantly, the Park's tenants.

One of the significant emerging benefits of the Research Park is its success in becoming a vehicle for technology transfer from the university laboratory to the marketplace. Several companies, using University-generated research, have begun operations in the Park and have received support in their efforts from the University community. Most of the companies in the Park are the "grow your own" kind that have experienced growth in sales and employment in the Park environment. This follows the pattern of technology transfer between successful research parks and their universities across the nation.

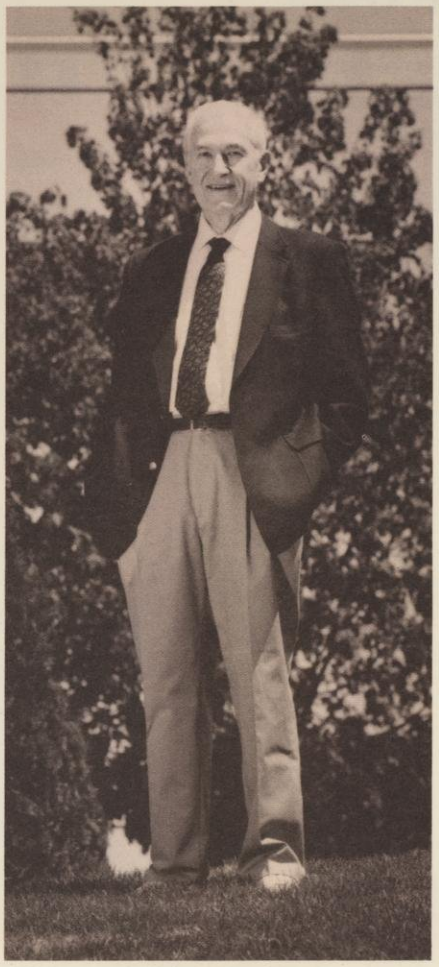
The Association of University-Related Research Parks reports that in 1980 there were about twenty four parks in the United States and Canada. By 1990 there were 120. There are a variety of ways research parks measure relative growth: average acreage occupied per year, number of companies, and number of employees. By any measure, University Research Park ranks in the top one-third of research parks in the U.S. and Canada.

One reason behind that success is the strong acceptance the Park enjoys at all levels within the University. When I meet with my counterparts from other universities, it is a point of envy that we receive such enthusiastic top level support for our Park. Faculty deans, support staff and four chancellors—Irving Shain, Bernie Cohen, Donna Shalala, and now David Ward—have been not only supportive but enthusiastic about our efforts. This support and enthusiasm has been invaluable to our success.

As we move into the Park's second decade, I believe it is experiencing more of a sense of true community. The Park is beginning to take on some aspects of a university campus, with companies relating to one another and networking in a variety of ways. In 1995 we will have available a training facility in the Sports Medicine building where we can import courses from the campus. The Park's newsletter, social events, and CEO get-togethers are all designed to help achieve a sense of community. Even the day care center contributes, and some day we may have a restaurant open in the Park, an event to which many tenants look forward. I

continued

Irving Shain *continued*



My goal, then, was to find a use for the land that would create a continuing income flow to support the institution. We tossed around many ideas, but the concept of a research park seemed to fit the goals of the University, of which there were three: to create an endowment, to provide a location that would encourage technology transfer, and to contribute to the economic development of the city and the region. Getting the project under way was an enormous task, and I can tell you that without Wayne McGown, it never would have been possible. The Park is now ten years old, and as I look back on the many people and organizations that helped, I can only marvel at our good fortune.

We have made a lot of progress in the past ten years and University Research Park is one of the few really successful research parks in the country. Its nonprofit corporation, permitted by agreement with the Regents and the State, is governed by a distinguished group of ten volunteers and includes a Regent and a member of the WARF Board of Trustees. The Chancellor serves ex-officio as president of the Research Park trustees. All income from the Park is dedicated to support research at the UW-Madison. There have been many changes over the years as we have adapted to new conditions and learned about how research parks actually develop. The following include some of the more notable events:

Originally, the land was used by the College of Agricultural and Life Sciences for research. We had to move their experiments to another location before we could develop a research park. I requested funds from the WARF trustees, and they gave $1 million to the University to purchase a new research farm on Mineral Point Road west of the Beltline. Another significant gift from the Rennebohm Foundation later provided funds needed for the initial purchases of land to be developed within the Park.

The original idea of attracting large companies that would own their buildings and pay rent to the Park for the land turned out to be of limited interest. Many inquiries came from small companies that needed only small amounts of space, and that led to the concept of a multi-tenant building.

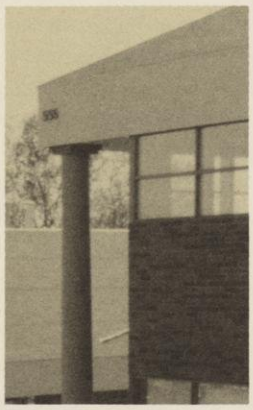
We had to construct the first multi-tenant building without any guarantee that we could rent its space. Along came Madison Gas and Electric (MG&E) which offered to provide the backing we needed to assure the banks that we could make the mortgage payments. MG&E agreed to rent half of the building if we couldn't find regular tenants. As it turned out, the building was fully rented before it was half completed, and MG&E transferred its backing to the next building. These multi-tenant buildings have been very successful, and in all there are 10 such buildings in the Park.

Another of the original concepts was to provide opportunities for technology transfer. Start up companies, however, need some help since they can't afford the range of services and amount of space that established companies can. MG&E again came to the rescue, and when we no longer needed help in providing backup financing for new

continued

Wayne F. McGown *continued*

believe we have only begun to glimpse what we can accomplish in the coming years. For now, as we celebrate ten years, I am grateful to so many who have helped us achieve success in the Park — all those I previously mentioned plus the Design Review Board, our banks, MG&E, Doug Frakes, our dedicated staff and most important, our tenants, who have placed their faith in us, and in the process have helped us make great strides in achieving our goals.



Irving Shain *continued*

buildings, joined with us in creating the Innovation Center, an incubator for startup companies whose basic services are jointly subsidized by MG&E and the Park. This has been a key element in the success story of several new companies that have now outgrown the incubator and are occupying standard rental space in other buildings in the Park.

That the University is the ultimate and sole beneficiary of the Research Park concept seems to catalyze generosity when we least expect it. A significant example involves the Science Center. We had no money when we built the first multi-tenant building, and although the MG&E backing was essential, we also needed funds for the contractor who would actually build the structure. The Park entered into a partnership with a local developer and contractor, Douglas Frakes. It was a very good relationship. By the time the ninth building was finished the partnership had some substantial assets, of which half belonged to the Park and half to Frakes. Then came a miracle. Frakes offered to sell the Park half of his half-ownership at an attractive price. He then gave the Research Park the other half of his half-ownership. As a result the Research Park now owns the entire Science Center, and when the mortgages are paid off in a few years a substantial income will benefit the University's research programs.

Let me summarize by saying that there are now 46 companies in the Park with about 1150 employees, occupying almost a half-million square feet of office and research space. The Park paid about $990,000 in city real estate taxes in 1993. About $2 million has been spent on the Reider farm infrastructure and 70 acres have been developed. Only about 15 acres remain to be occupied. Currently plans are underway to open additional lands on the Charmany Farm. The assessed value of the Science Center is about $12 million, and the value of the entire Park $26.8 million.

The mission of the Park is being fulfilled while maintaining high environmental standards for real estate development. We are proud of the accomplishments of the last ten years, and I am sure that University Research Park will be an asset to the University and the City for the indefinite future.

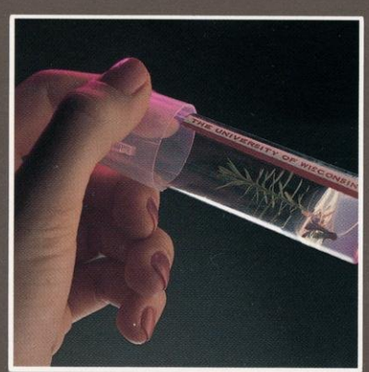
University Research Park, Inc.
1265 Wisconsin Alumni Research Foundation Building
610 Walnut Street
Madison, Wisconsin 53705–2336

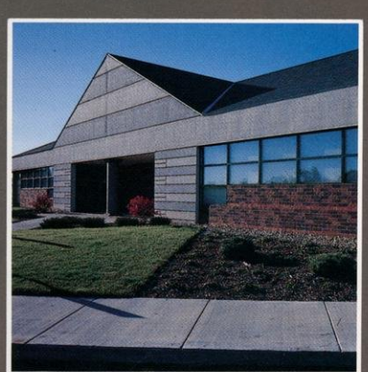
☎ 608/262–3677

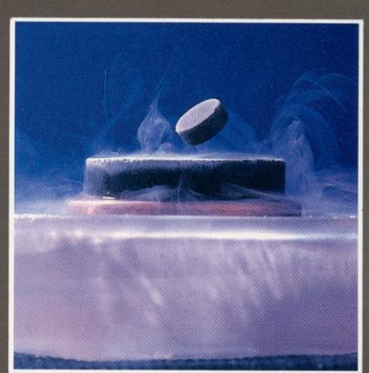
text *Wild Rose Editorial* **photography** *Greg Anderson* **design** *Tina Yao Designs*

University Research Park

University of Wisconsin-Madison







Access to Research Excellence Recognized Worldwide

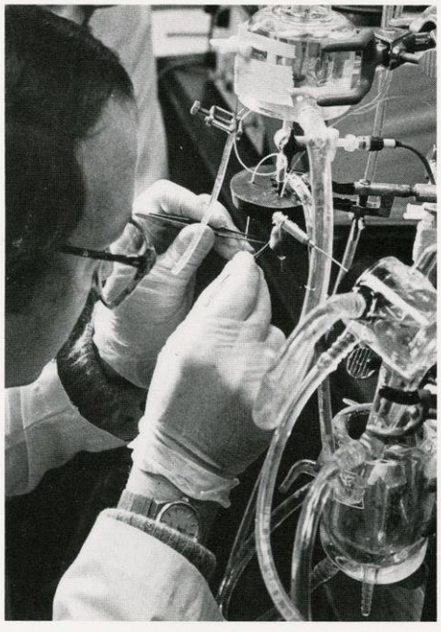
UNIVERSITY OF WISCONSIN-MADISON

Setting the Standard for Excellence

- Our reputation for excellence is built on more than 140 years of education and pioneering research. The research enterprise at the University of Wisconsin-Madison encompasses more than 5,000 ongoing projects spanning the physical, biological, engineering, medical, veterinary and social sciences, law, business, arts and humanities.
- UW-Madison is one of the largest research universities with an annual research budget of more than $242 million. Research funding by industry has nearly doubled over the past five years.
- The Wisconsin research enterprise has few equals anywhere in the world, a statement borne out by our high rankings in every serious survey of scholarly reputation conducted since 1910.
- The following are some examples of pioneering research at the UW-Madison which have dramatically improved our lives and industries.

ENGINEERING AND PHYSICAL SCIENCES

☐ UW-Madison is a leader in materials science research, particularly in the areas of alloys, ceramics, composites, electronic materials, and superconductors. We are a national Center of Excellence in the use of plasmas in manufacturing. Our modern laboratories support work on vision systems for robots as well as simulations for design of flexible manufacturing systems. We produce commercial quality integrated circuits in our pilot-scale, Class 100 microelectronics facility, and operate a unique national source of synchrotron radiation for x-ray lithography and materials research.



☐ Our researchers have developed new technologies for control of electric motors; software packages to increase the efficiency of metal castings; and statistical and experimental design methods, widely used in industry, to evaluate and improve product quality and production processes.

☐ In a center funded by NASA and industry, researchers are tackling such problems as the extraction of helium fuel from the moon and the culture of food plants in space stations. The Graduate School's Space Science and Engineering Center, another NASA-funded effort, has built instruments for the Hubble Space Telescope; atmospheric sensing devices flown on satellite missions to Venus and Jupiter; and hardware and software for weather satellites. With expertise in remote sensing and environmental monitoring, Wisconsin has also taken the lead in the task of computerizing and integrating physical and historical land record systems.

☐ In fusion research, Wisconsin's engineers and physicists hold a premier position. We are home to an impressive variety of experimental fusion machines and have granted the largest number of doctorates in this field in the country.

☐ UW-Madison's computer science research efforts include harnessing microcomputer networks into a powerful multi-computer, automating integrated circuit layout and developing artificial intelligence and simulation of cognitive systems.

MEDICINE

☐ The UW Clinical Cancer Center has pioneered work on tamoxifen, a drug that may prevent breast cancer from recurring in post-menopausal women. The center, one of 20 National Cancer Institute centers, is a site for clinical trials on anti-cancer agents. McArdle Laboratory for Cancer Research complements the clinic with its work on the basic biology of cancer.

☐ Digital subtraction angiography, a marriage of x-ray and computer technology to produce images of blood vessels, was discovered and refined here. UW-Madison researchers have also developed and commercialized new techniques of single and dual photon absorptiometry to measure bone mineral loss, known as osteoporosis; others have developed a digital hearing aid that can be precisely programmed to meet an individual's hearing needs.

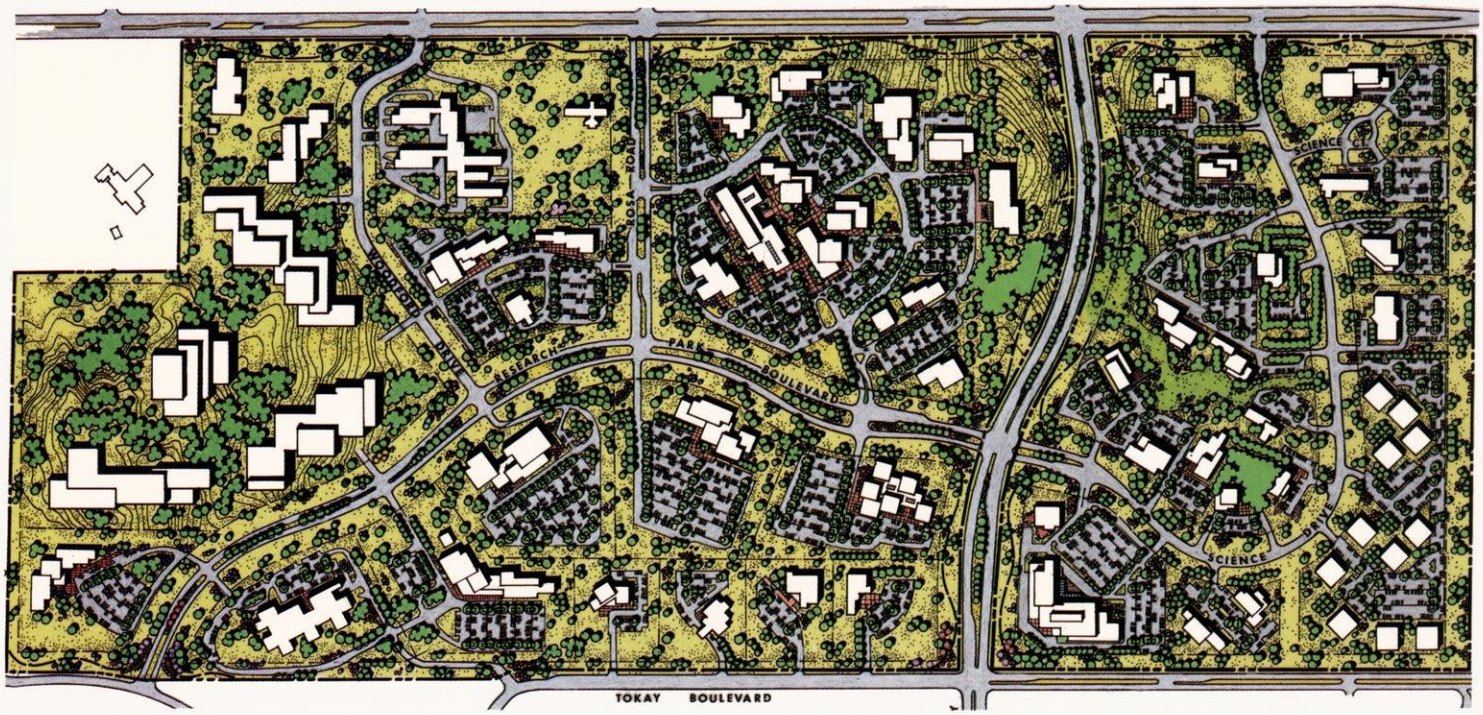
☐ The UW Solution, a fluid which enables donor organs to remain viable for up to 24 hours after harvesting, was developed here.

☐ Pharmacy researchers have patented a system for delivering drugs to the eye through small adhesive patches and have patented a patch worn inside the mouth for daily administration of medications. They have also been leaders in the use of microbial enzymes to synthesize purer drugs with fewer side effects.

☐ UW-Madison has improved the biopolymer materials used in artificial blood vessels and heart valves. We have developed important tools to diagnose and treat speech and vocal disorders and to enhance the independence of patients with physical disabilities.

UNIVERSITY RESEARCH PARK

A Unique, Affordable Business Environment

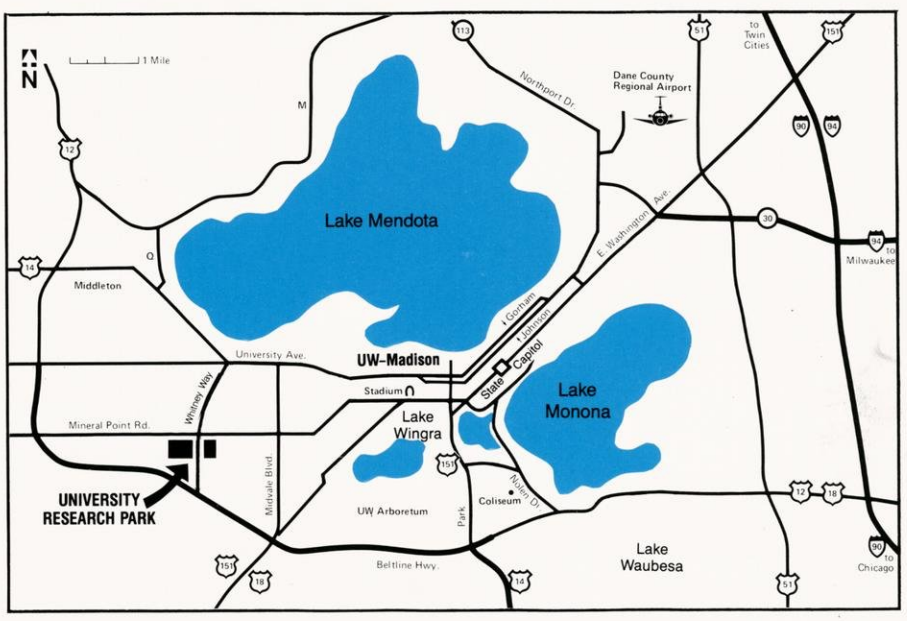


University Research Park is a unique research and technology park that stands apart from conventional mixed use office/business parks. A special place created to encourage partnerships between businesses and university researchers. The Park continues a UW–Madison tradition of successful relationships with the private sector. In the first four years, almost one-third of the 325 acres was committed to development. Eight companies and 500 employes located there in the first four years.

Designed with emphasis on the human needs for a quiet, comfortable, scenic working environment, the Park also responds to the practical business needs of established and emerging corporations. Streets gracefully follow the natural, rolling land contours. Woodlands, wetland preserves, ponds and generous landscaped green spaces cover more than one-third of the Park. The buildings, which are carefully designed, quality, contemporary facilities, complement the area's natural beauty.

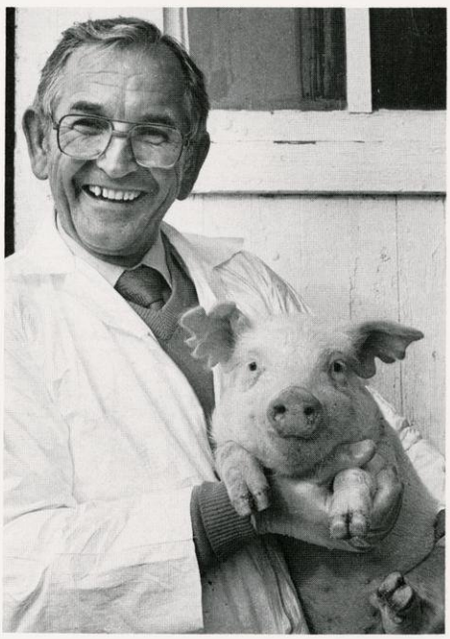
The attractively designed Park offers affordable office, laboratory and assembly facilities in the University Science Center. Flexible long term land leases on 2 to 50 acres or more are available for individual corporate facilities. The Park can participate in sole or joint development and ownership of facilities. The majority of the land is zoned Research Park-Specialized Manufacturing, which permits location of research, office, laboratory and light industrial manufacturing facilities. Sixteen acres are reserved for a hotel and conference center for Park tenants and 36 acres are available for complementary commercial development.

Only three miles west of campus, the Park is in an area of high-quality residential and commercial development with excellent access to the airport and interstate highway system. Major arterial streets and bus routes link the Park to all points of the city. Quality hotels, shopping and dining facilities are within blocks. Day care centers, cleaners, grocery stores, car repair services, and clothing, department and specialty stores are all adjacent to the Park. Excellent high schools and elementary schools are nearby. The Park is surrounded by new, affordable single-family and multiple-family housing developments.



BIOTECHNOLOGY

- ☐ In biochemistry and molecular biology, UW-Madison ranks among the nation's top five programs. Our scientists, known for their research on proteins and mechanisms of gene control, are aided by state-of-the-art facilities for gene and protein sequencing and synthesis, biocomputing, and creation of hybridomas and transgenic mice. Recently UW-Madison researchers mapped the atomic structure of a cold virus; others inserted a "correct" betaglobin gene into a cell with a defective gene, a step toward gene therapy of some diseases.
- ☐ Our researchers are using cell fusion and other methods of biotechnology to hybridize otherwise incompatible plant species and are also exploring jumping genes and somaclonal variants as sources of new mutations. By synthesizing enzymes found in fungi of the forest floor, scientists here and at the adjacent USDA Forest Products Laboratory are exploring new ways to make paper pulp.



- ☐ Producing superior livestock is the goal of Wisconsin scientists who pioneered embryo transplants in cattle, and have now cloned cattle embryos. Efforts are underway to modify cows' milk genes to yield new food products, and perhaps, pharmaceuticals.
- ☐ Recent developments in UW-Madison food science research include the making of flavorful low-fat and low-salt cheeses, and a process for removing cholesterol from dairy fats, beef tallow and egg yolks.
- ☐ Unique national research facilities include the Food Research Institute; Center for Dairy Research; Dairy Forage Research Center; one of the nation's top nuclear magnetic resonance facilities; and the Biotron, whose rooms can simulate environmental conditions found almost anywhere on earth.

TECHNOLOGY TRANSFER ASSISTANCE

Wisconsin's land-grant tradition has fostered strong research ties with industry, and the following programs develop and expand those relationships.

- ☐ The University-Industry Research Program (UIR) helps companies identify university expertise and resources. UIR's informational services include seminars, company briefings and a directory of faculty interests.
- ☐ Wisconsin Alumni Research Foundation (WARF), the university's patent licensing agent, helps faculty and their industrial partners draw up satisfactory patent and licensing arrangements. Licensing income provides incentive to inventors and their departments and supports university research.
- ☐ The Biotechnology Center coordinates biotechnology research at the university and facilitates technology transfer. The center is a link to more than 250 faculty who collectively receive more than $50 million annually in federal research grants. The center's service facilities are available to business and include biocomputing; protein purification; hybridoma, plant cell and tissue culture; transgenic mouse preparation; and two-dimensional photometry.
- ☐ More than 20 university-industry consortia sponsor research at UW-Madison in such fields as electric machines, robot design, biopulping and microchip technology. Member companies' benefits may include advance research reports, consultation with faculty and first rights on licensing patents developed by the consortium.
- ☐ University Research Park tenants will have access to the campus VAX/VMS computer services through a dedicated fiber optic cable. It will link tenants with 350 U.S. universities, federal contractors, the National Science Foundation, the Canadian and European research university network, and other specialty networks.
- ☐ The latest trends in technology are available through more than 20 campus libraries holding more than 3.5 million volumes. The engineering library's Information Services Division (ISD) offers confidential services such as literature and patent searches. ISD handles over 20,000 requests annually from companies nationwide. Information on demographic and sociologic trends is available through the Applied Population Laboratory and our Department of Sociology, which ranks first in the nation.
- ☐ The School of Business offers faculty consultants and provides management training through over 400 specialized courses in the Executive Program and Management Institute. A 1988 report of research productivity of American business school faculty ranked UW-Madison first among all public institutions and fifth overall. Our departments of marketing, management, risk management and real estate ranked among the top four in the country.

University Research Park

University of Wisconsin-Madison

Corporate Profiles

Summer, 1991

CG Technologies is an environmental microscopy laboratory providing analytical services which include building material analysis, air sampling and monitoring to clients throughout the United States. For further information contact: Ms. Carol Gannon, 535 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-7811.

Corporate Playcare provides child care for children from infants through age 5 who are employees of CUNA Mutual Insurance Association, CUNA and credit unions. For further information contact: Ms. Martha Harrison, 11 Science Court, Madison, Wisconsin 53711; phone: 608/238-6700.

Credit Union National Association (CUNA) and CUNA Mutual Insurance Group provide services and programs to credit unions and their members world-wide. They plan to expand their international headquarters into the Park. For

Foth and Van Dyke is a full-service engineering/architectural firm with offices in Green Bay, Madison and Milwaukee, Wisconsin; Minneapolis, Minnesota; St. Louis, Missouri; Tampa, Florida; and Chicago, Illinois. Specialties include buildings and site development, environmental protection, transportation, utility systems, resource management, and manufacturing processes and facilities. For more information contact: Mr. Doug Stitgen, 406 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-4761.

Genetics Computer Group, a UW-Madison research and development project which has developed into a successful private company, produces and supports an analysis software package for assembling and analyzing biological sequences. The package is used by 12,000 scientists in 290 universities and 25 countries. The company was formerly affiliated with the UW-Madison Biotechnology Center. For more information contact: Dr. John Devereux, 575 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/231-5200.

Grassland Media offers complete video production services, including scriptwriting, production, direction and post-production to business and industrial clients, agencies, associations and government. For more information contact: Mr. Stuart Stroup, 535 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-7575.

Hazleton Laboratories America has an analytical environmental chemistry operation located here. The company is

For Further Information Contact:

University Research Park
University of Wisconsin-Madison
1265 WARF Building
610 Walnut Street
Madison, WI 53705-2336
Phone: 608/262-4023
FAX: 608/263-2841

Greg Hyer
Associate Director

University Research Park, Inc. is a private, not-for-profit corporation responsible for developing the property. Members of the Board of Directors are distinguished business, research and real estate professionals. The Chancellor of the University of Wisconsin-Madison is chairperson of the Board. Professional staff, located on campus, are available to assess the Park's advantages for your company. Income from the development of the Park is returned to the University to finance basic research.

This literature was made possible with a gift from the Evan & Marion Helfaer Foundation, Milwaukee, Wisconsin.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 1161 MADISON, WI

POSTAGE WILL BE PAID BY ADDRESSEE

UNIVERSITY RESEARCH PARK
946 WISCONSIN ALUMNI RESEARCH
FOUNDATION BUILDING
610 WALNUT STREET
MADISON, WISCONSIN 53791-8885

Yes! Let's discuss partnerships with the leading public research institution in the United States. I'd like more information about the following areas:

- ☐ University/Industry Research Program
- ☐ Wisconsin Alumni Research Foundation
- ☐ Biotechnology Center
- ☐ Research/Licenses/Patents/Consortia in the areas of:
- ☐ Research Park Land for Lease
- ☐ Research Park Office/Laboratory Space for Lease
- ☐ Faculty Research Directory
- ☐ Research Park Video

_____

_____

Name & Title: _____

Company: _____

Address: _____

City, State, Zip: _____

Phone: _____

University Research Park

University of Wisconsin-Madison

Corporate Profiles

Summer, 1991

CG Technologies is an environmental microscopy laboratory providing analytical services which include building material analysis, air sampling and monitoring to clients throughout the United States. For further information contact: Ms. Carol Gannon, 535 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-7811.

Corporate Playcare provides child care for children from infants through age 5 who are employees of CUNA Mutual Insurance Association, CUNA and credit unions. For further information contact: Ms. Martha Harrison, 11 Science Court, Madison, Wisconsin 53711; phone: 608/238-6700.

Credit Union National Association (CUNA) and CUNA Mutual Insurance Group provide services and programs to credit unions and their members world-wide. They plan to expand their international headquarters into the Park. For further information contact: Mr. Richard Heins, CUNA Mutual, 5910 Mineral Point Road, Madison, Wisconsin 53701; phone: 608/238-5851 or Mr. Ralph Swoboda, CUNA, phone: 608/231-4000.

Eppendorf North America is involved in the development, manufacture and marketing of laboratory instruments and on-line process analyzers. In addition, the company markets molecular biology instruments and equipment designed and manufactured by its parent company, Eppendorf-Netheler-Hinz GmbH, which is located in Hamburg, Germany. For more information contact: Dr. Karl Schick, 545 Science Drive, Madison, Wisconsin 53711; phone: 608/231-1188.

First Business Bank provides banking services to businesses and business people. For more information contact: Mr. Jerry Smith, 406 Science Drive, P.O. Box 4961, Madison, Wisconsin 53711; phone: 608/238-8008.

Fiskars, Inc. offices in the Park are involved in research and development for world-wide consumer products, new manufacturing processes and materials. Fiskars, the oldest industrial corporation in Finland, manufactures and sells quality household and professional cutting tools and uninterruptible power supply systems for telecommunications and data processing. For more information contact: Dr. Larry Carter, 535 Science Drive, Suite D, Madison, Wisconsin 53711; phone: 608/233-1800.

Foth and Van Dyke is a full-service engineering/architectural firm with offices in Green Bay, Madison and Milwaukee, Wisconsin; Minneapolis, Minnesota; St. Louis, Missouri; Tampa, Florida; and Chicago, Illinois. Specialties include buildings and site development, environmental protection, transportation, utility systems, resource management, and manufacturing processes and facilities. For more information contact: Mr. Doug Stitgen, 406 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-4761.

Genetics Computer Group, a UW-Madison research and development project which has developed into a successful private company, produces and supports an analysis software package for assembling and analyzing biological sequences. The package is used by 12,000 scientists in 290 universities and 25 countries. The company was formerly affiliated with the UW-Madison Biotechnology Center. For more information contact: Dr. John Devereux, 575 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/231-5200.

Grassland Media offers complete video production services, including scriptwriting, production, direction and post-production to business and industrial clients, agencies, associations and government. For more information contact: Mr. Stuart Stroup, 535 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-7575.

Hazleton Laboratories America has an analytical environmental chemistry operation located here. The company is principally engaged in providing laboratory services to the pharmaceutical, chemical and food industries. Hazleton is a subsidiary of Corning Glass, New York and has operations in Virginia, New Jersey, Florida, France and England. For more information contact: Mr. Robert Conway, 3301 Kinsman Blvd., P.O. Box 7545, Madison, Wisconsin 53707; phone: 608/241-4471.

HBRS, Inc. performs market research and economic analysis on energy and natural resources issues for customers nationwide. For information contact: Mr. Kent Van Liere or Mr. Robert Baumgartner, 585 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/231-1011.

Marschall Products, Rhone-Poulenc, Inc. is a developer, manufacturer and marketer of ingredients primarily to the dairy industry. The name Marschall to the dairy processing industry has meant reliability, quality, innovation, service and leadership since 1906. For more information contact: Mr. Cleo Weibel, 601 Science Drive (after 11/1/91); phone: 608-276-3585.

MGE Innovation Center, sponsored by Madison Gas and Electric, provides below market laboratory and office suites to early stage companies. Companies have access to shared laboratory and support services and a conference room. Companies also have access to strategic business and scientific advice from a venture capital firm and the University of Wisconsin-Madison. For additional information contact: Ms. Ellen Larson-Marty, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-5054.

Medical Media Associates Inc. (MMA) specializes in medical communications, offering services to a national and international clientele. Clients include product manufacturers, pharmaceutical companies, clinics, hospitals, government agencies, HMOs, professional medical organizations and voluntary health organizations. MMA provides a full range of marketing, public relations, and educational services. For more information contact: Ms. Edith Oberley, 585 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-1054.

Metropolitan Life is an insurance company which deals with all forms of insurance. They are also involved in investments, mutual funds, and financial planning services. For more information contact: Mr. James M. Lewandowski, 406 Science Drive, Suite 200, Madison, Wisconsin 53711; phone: 608/231-3399.

NemaPharm, Inc. develops and applies innovative drug-discovery technologies using well-studied model organisms, principally the soil nematode Caenorhabditis elegnas. The focus of NemaPharm includes both novel agricultural chemicals and animal health agents as well as new human pharmaceuticals. For more information contact: Dr. Carl Johnson, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-2404.

New York Life is an insurance company which sells and services life and disability insurance, annuities, as well as security products through New York Life Securities. For additional information contact: Mr. Ray J. Hegg, 406 Science Drive, Suite 310, Madison, Wisconsin, 53711; phone: 608/238-3400.

Norrell Health Care is located at 406 Science Drive, Madison, Wisconsin 53711. For further information contact: Mr. Don Anderson; phone: 238-8878.

Novagen is a biotechnology company specializing in the areas of custom gene libraries and advanced products for genetic research for private industry, universities, clinical research laboratories and the National Institute of Health. For more information contact: Dr. Robert Mierendorf, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-6110.

Oral Health International performs dental care research and systems analysis in order to provide group or corporate purchasers of dental care a means of assessing the quality of dental care and treatment. For more information contact: Dr. William Schemmel, 585 Science Drive, Suite C, Madison, Wisconsin 53711; phone: 608/833-1448.

Parkway Hospital, a subsidiary of HCA Psychiatric Company, specializes in short term in-patient treatment of children and adolescents with psychiatric disorders. Parkway also provides university researchers with labs for research on more effective treatment for a broad spectrum of disorders. For more information contact: Mr. Jim Meyers, 6001 Research Park Blvd., Madison, Wisconsin 53719; phone: 608/238-5151.

Persoft is a software development and publishing company with terminal emulation, RAM-resident program manager and data base management products. For more information contact: Mr. Thomas Wolfe, 465 Science Drive, Madison, Wisconsin 53711; phone: 608/273-6000.

Piper Jaffray and Hopwood is an investment company and member of the New York Stock Exchange. For more information contact: Mr. Richard J. Thompson, Managing Director, 406 Science Drive, Madison, Wisconsin 53711; phone: 608/238-8800.

Preschool of the Arts provides early childhood education with an emphasis in the arts for children from ages 2 through 5. For more information contact: Ms. Barbara Goy, 11 Science Court, Madison, Wisconsin 53711; phone: 608/233-1707.

Sonoco Products Company is an international Fortune 500 company based in South Carolina which produces paper products from recycled paper for the textile, paper, packaging and shipping industries. A research and development program about the strength and deformation properties of their products is located in the Park. The program uses a Cray Research supercomputer and a software package developed in Madison. For more information contact: Dr. Terry Gerhardt, 555 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/231-3060.

H. J. Steudel and Associates, Inc. provides high-level management and software solutions to assist industry in implementing world-class manufacturing. The following products and services are provided: manufacturing systems, analysis, total quality management, facilities planning, STARCELL simulation software, and custom software and systems modeling. For more information contact: Mr. L. Gene Berg, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-4406.

Stress Photonics, Inc. conducts research and development in the area of applying differential infrared thermography to the non-destructive, non-contacting evaluation (NDE) of materials and structures from room to high temperatures. A benchmarking method will be established to optimize stress resolution and speed of imaging using current technology. A new thermographic stress analysis and non-destructive evaluation system will be designed and analytically evaluated against the benchmarks. For further information contact: Mr. James C. Rice, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-2878.

Synertron is a privately-owned clinical trials management company providing consultative services, data management and statistical analysis support for therapeutic investigative trials of patients with cancer. For more information contact: Dr. Richard Smalley, 575 Science Drive, Suite D, Madison, Wisconsin 53711; phone: 608/231-4477.

Tetrionics, Inc. is an FDA registered Good Manufacturing Practices (GMP) organic synthetic laboratory specializing in the production of experimental pharmaceuticals and pharmaceutical products with emphasis in the Vitamin D area. GMP status permits the material produced to be used by human subjects in clinical trials during the new drug development and as actual therapeutic agents. For more information contact: Mr. Herb E. Paaren, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-3115.

Ultratec, Inc. is a world leader in supplying communications devices to the deaf and a leading supplier of signaling systems for hearing impaired. Ultratec has their corporate headquarters, technology center and national service center in the Park and a European sales office in London, England. For more information contact: Mr. Robert Engelke, 450 Science Drive, Madison, Wisconsin 53711; phone: 608/273-0707.

United States Geological Survey Water Resources Division's Cartographic and Publications Program specializes in thematic and digital cartographic methods and products to support hydrologic studies nationwide. Their maps, prepared by traditional and digital imaging methods, document the collection and analysis of data on the quantity and quality of surface and ground water, water use and precipitation. For more information contact: Mr. Greg Allord, 505 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-9333.

Venture Investors of Wisconsin specializes in providing early stage seed and venture capital financing to Wisconsin growth companies. Portfolio companies represent such diverse markets as biotechnology, medical instrumentation and services, marine electronics and software. Venture Investors is also responsible for the day to day management of the MGE Innovation Center. For more information contact: Mr. Roger Ganser, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/233-3070.

Warzyn provides environmental engineering services nationwide. Warzyn's corporate headquarters is in Madison and they also have offices in Milwaukee, Minneapolis, Chicago and Detroit. For more information contact: Mr. Charles Stoll, 555 Odana Rd., Madison, Wisconsin 53719; phone: 608/273-0440.

Wisconsin Center for Demand Side Research brings Wisconsin utilities, the Public Service Commission, and the university together to research energy efficiency. They are charged with sponsoring, conducting and coordinating research that will help all sectors of the state economy (residential, commercial, industrial and agriculture customers) achieve maximum economic levels of energy efficiency, and making the research results available to appropriate decision makers. For more information contact: Dr. Sheldon Feldman, 595 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-4601.

Wisconsin for Research, Inc. (WFR) is a private, non-profit organization formed in 1980 to promote cooperative efforts between the University of Wisconsin-Madison and Wisconsin businesses for the benefit of both. Since its inception, WFR has developed or co-developed several projects to support technology transfer and economic development efforts in the state. WFR developed and operated a small business incubator and the Wisconsin For Research Seed Capital Fund and participated in the formation of the Wisconsin Venture Fair and the Madison High-Tech Consortium. WFR has also worked with the university on conferences and corporate seminars. For more information contact: Ms. Noel Pratt, 565 Science Drive, Suite A, Madison, Wisconsin 53711; phone: 608/238-3031.

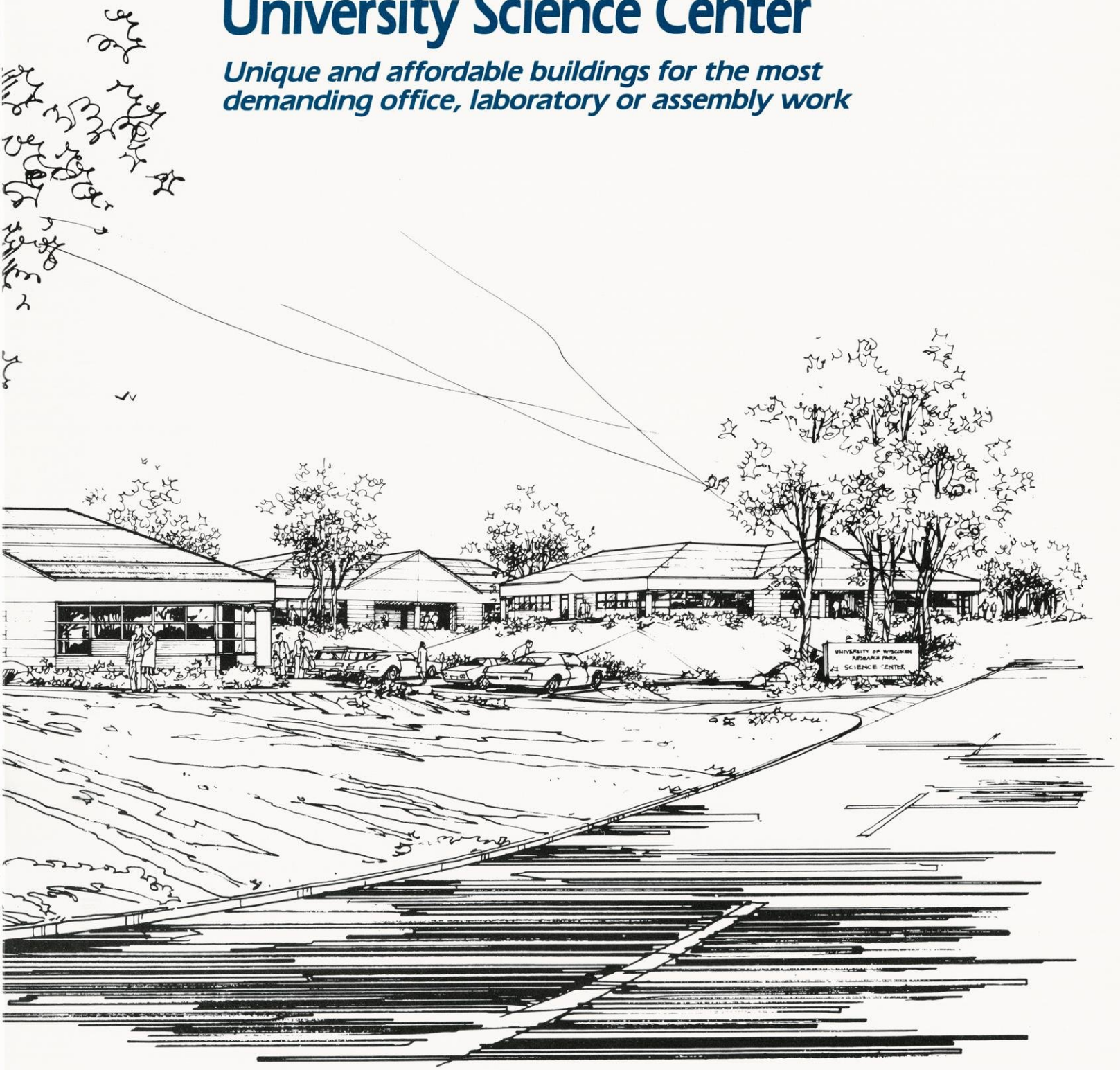
Xylan is a research and development company working on the development of enzyme and fermentation technologies for converting agricultural and industrial wastes to livestock feed, dietary fiber and chemical feedstocks. For more information contact: Mr. George Tyson, 555 Science Drive, Suite B, Madison, Wisconsin 53711; phone: 608/238-4600.

University Research Park
1265 Wisconsin Alumni Research Foundation Building
610 Walnut Street • Madison, Wisconsin 53705
Phone: 608-262-3677 • Fascimilie: 608-263-2841

University Research Park
University of Wisconsin-Madison

University Science Center

Unique and affordable buildings for the most demanding office, laboratory or assembly work



University Science Center . . .

distinctive buildings integrated in a beautiful park landscape.

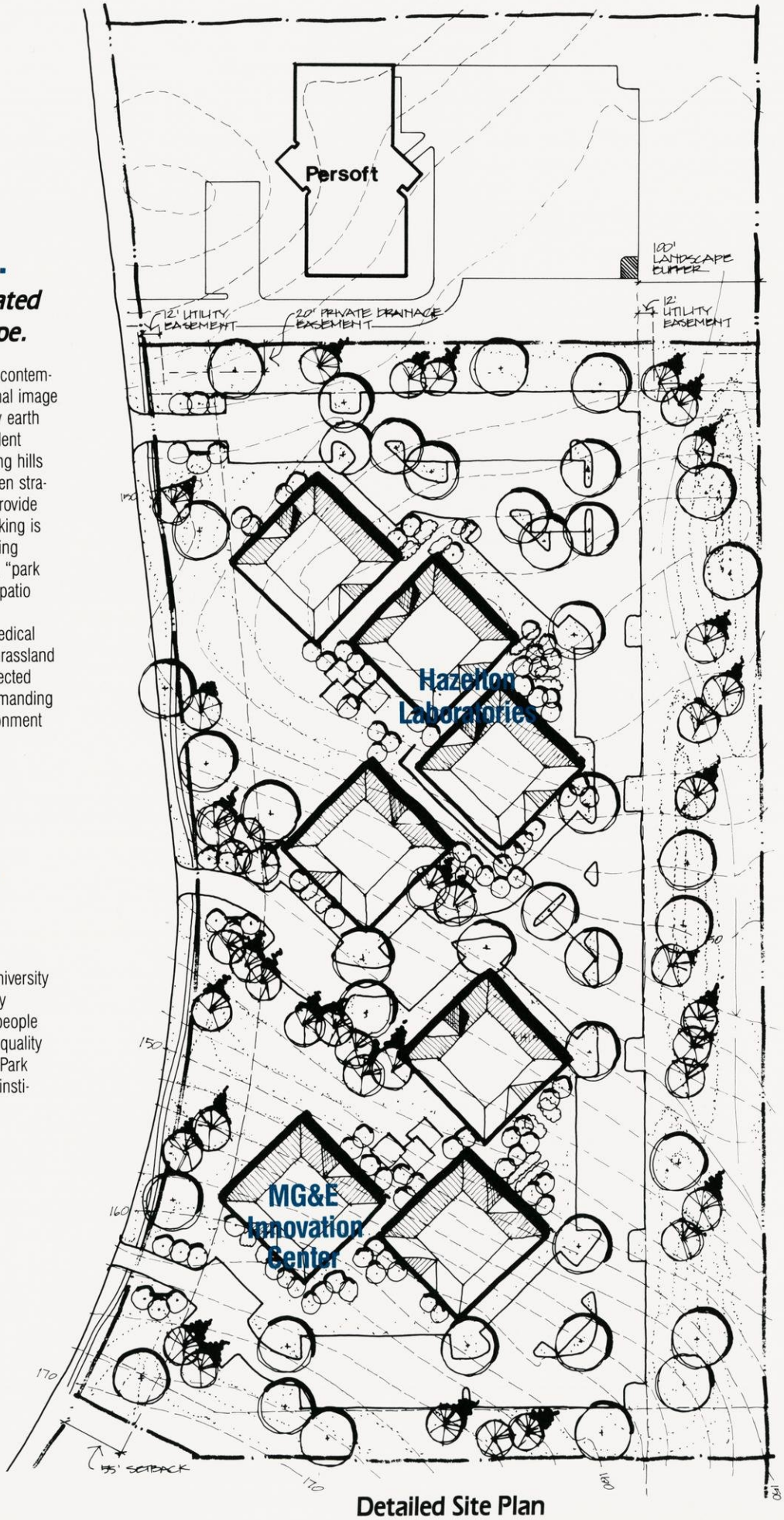
University Science Center's seven attractive, contemporary buildings convey a unique, professional image through the use of brick and complementary earth colors. Generous window space offers excellent views of the beautifully landscaped and rolling hills of the Research Park. The buildings have been strategically sited to enhance these views and provide convenient access to parking. Abundant parking is available at ratios fully 50% higher than zoning requirements. University Science Center is a "park within a park" and offers employes outdoor patio areas with tables.

Hazleton Laboratories of America, Inc., Medical Media, Inc., Xylan, Inc., CG Technologies, Grassland Media, and Warzyn Engineering have all selected University Science Center to satisfy their demanding needs at affordable prices in a quality environment for employes and customers.

University Research Park . . .

the Midwest's science and technology address.

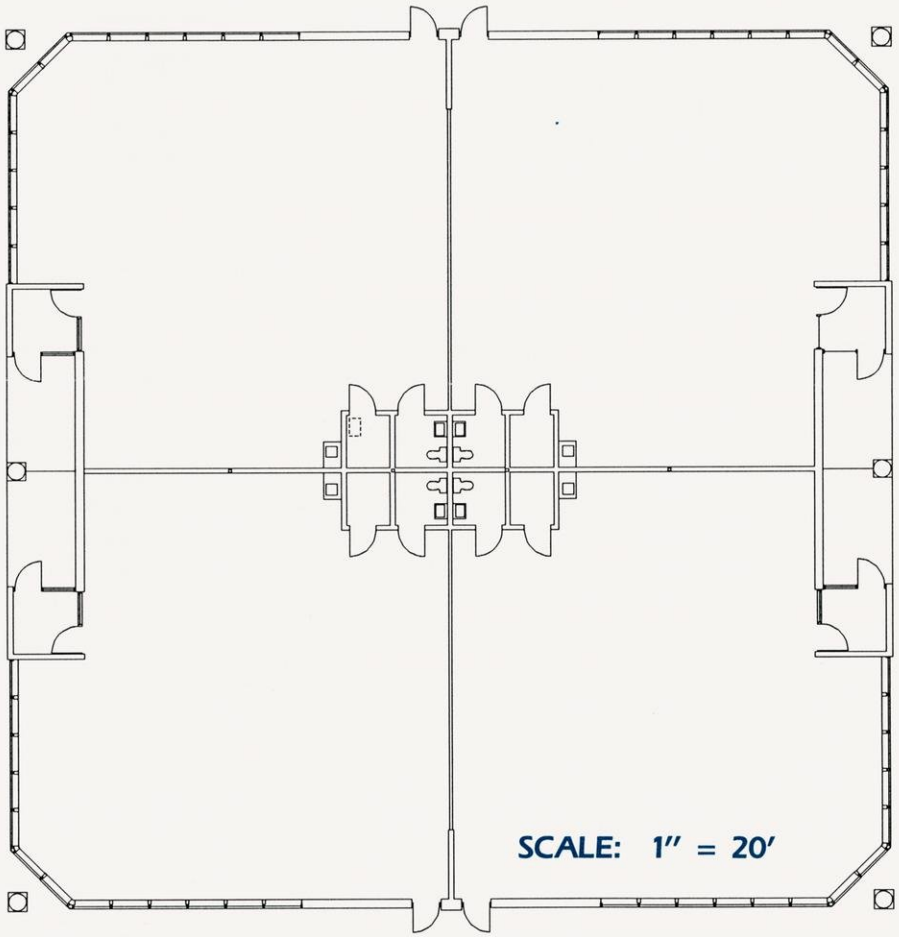
The 325-acre research park, in which the University Science Center is located, has been carefully designed to meet the demanding needs of people in science and technology businesses for a quality working environment. At the same time the Park offers access to the largest public research institution in the United States, the University of Wisconsin–Madison.



Detailed Site Plan

"The development of an Environmental Chemistry Laboratory at UW Research Park has provided Hazleton with a cost effective and timely solution to meet our clients' analysis needs. Pre-established site development plans and building dimensions allowed us to concentrate on programming design work while fast-tracking the building shell construction. The project will be completed in approximately one-half the time normally required."

William D. Hamilton
Facilities Manager
Hazleton Laboratories
America, Inc.



Detailed Building Information

Quality and convenience for you.

Office Sizes: From 2,400 to 9,500 square feet.

Parking: 315 spaces for 7 buildings.

Materials: Brick and permanent accent materials in contemporary colors with over 1,000 square feet of windows per building.

Mechanical Systems: High efficiency gas/electric heating and air conditioning with individual control systems; zoned to permit independent conditioning of all tenant areas.

Efficiency and flexibility for your benefit.

1. 100% use of leasable area; individual exterior primary and delivery entrances available for tenants occupying 2,400 or more square feet.
2. Total control over utility costs.
3. Maximum corporate visibility through extensive building signage.
4. Optional basement storage constructed for tenants completely occupying a building.
5. Carpeting, lighting, ceilings, finished demised walls, and code electrical, plumbing, heating, ventilating and cooling are all included in a competitive base price.
6. Tailored, detailed finishing of offices, laboratory or assembly spaces to your precise specifications at competitive prices.

A Dedicated Fiber Optic Telecommunications System

A dedicated fiber optic telecommunications system links the University Science Center to the university's computers, researchers, and vast library system.

The fiber optic network, using Ethernet protocol, operates at 1.5 million bits per second between the Park and campus. Documents and research data bases are transmitted in seconds. Companies may access the campus data network, 350 U.S. universities, federal contractors, the National Science Foundation, the Canadian and European research university networks and discipline-specific networks.

University Science Center

Only three miles from campus, the Park is in an area of high quality residential and commercial development. Excellent access to the airport and interstate highway system is available. Major arterial streets and bus routes link the park to all points of the city. Quality hotels, shopping and dining facilities are within blocks. Day care centers, cleaners, grocery stores, car repair services, and clothing, department and specialty stores are all adjacent to the Park. Excellent high schools and elementary schools are nearby and the Park is surrounded by new affordable single-family and multiple-family housing developments.

For More Information Contact:

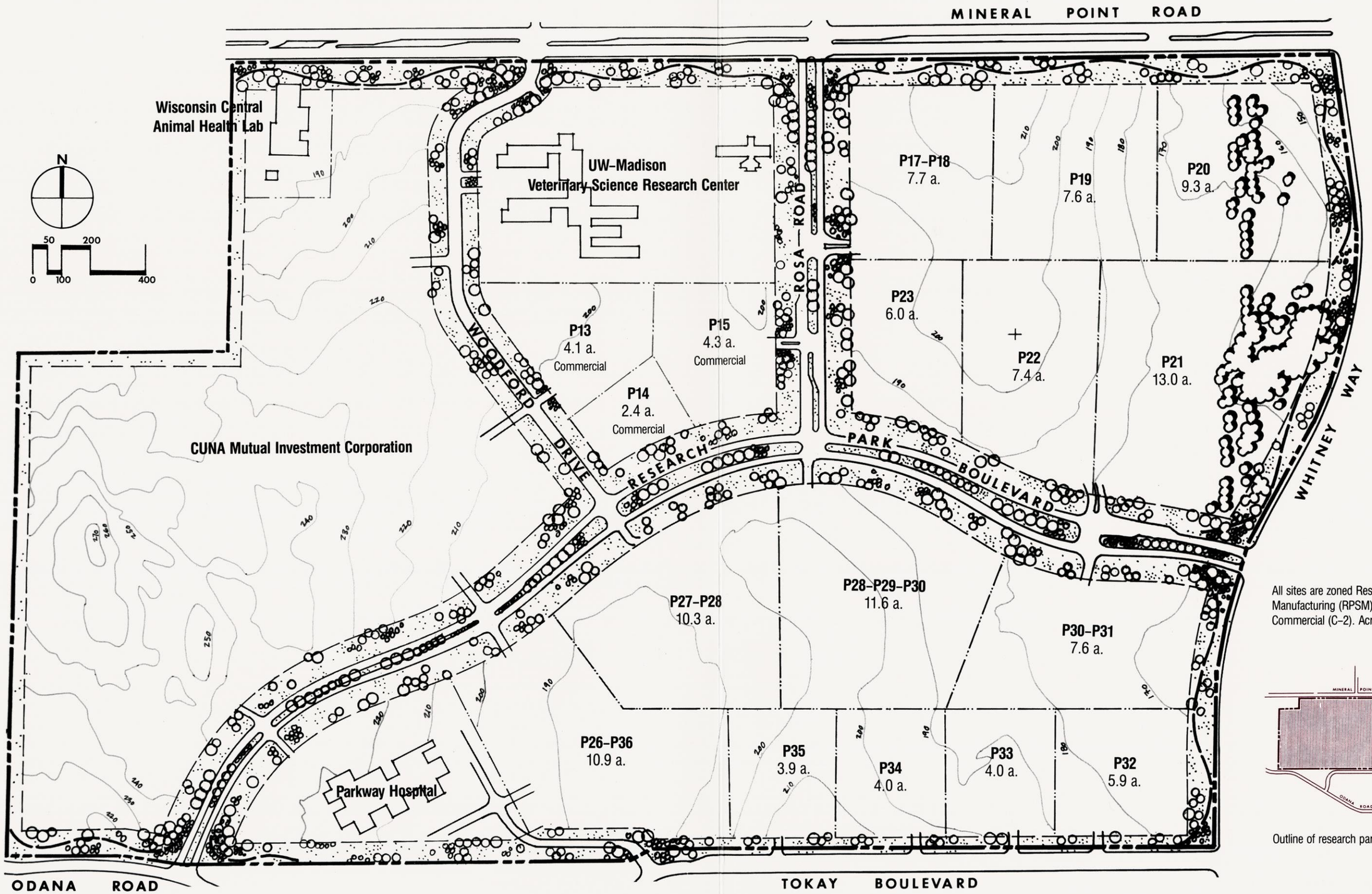
University Research Park, Inc.
1265 Wisconsin Alumni Research Foundation Building
610 Walnut Street
Madison, WI 53705
Phone: 608/262-3677
FAX: 608/263-2841

University Research Park
University of Wisconsin–Madison

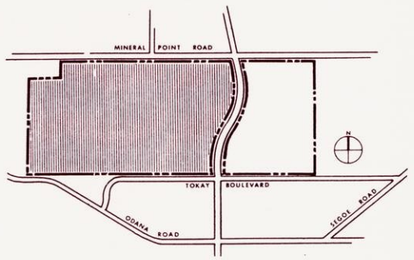
Available Sites

Competitive Building Sites at a Premier Address

University Research Park–West



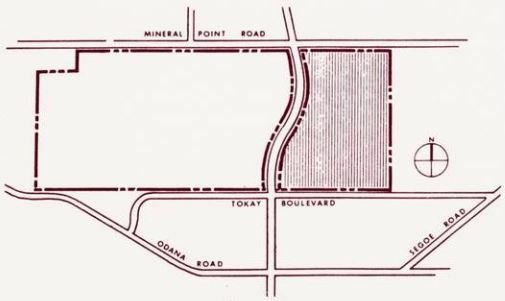
All sites are zoned Research Park Specialized Manufacturing (RPSM) except sites indicated as Commercial (C–2). Acreage figures are approximate.



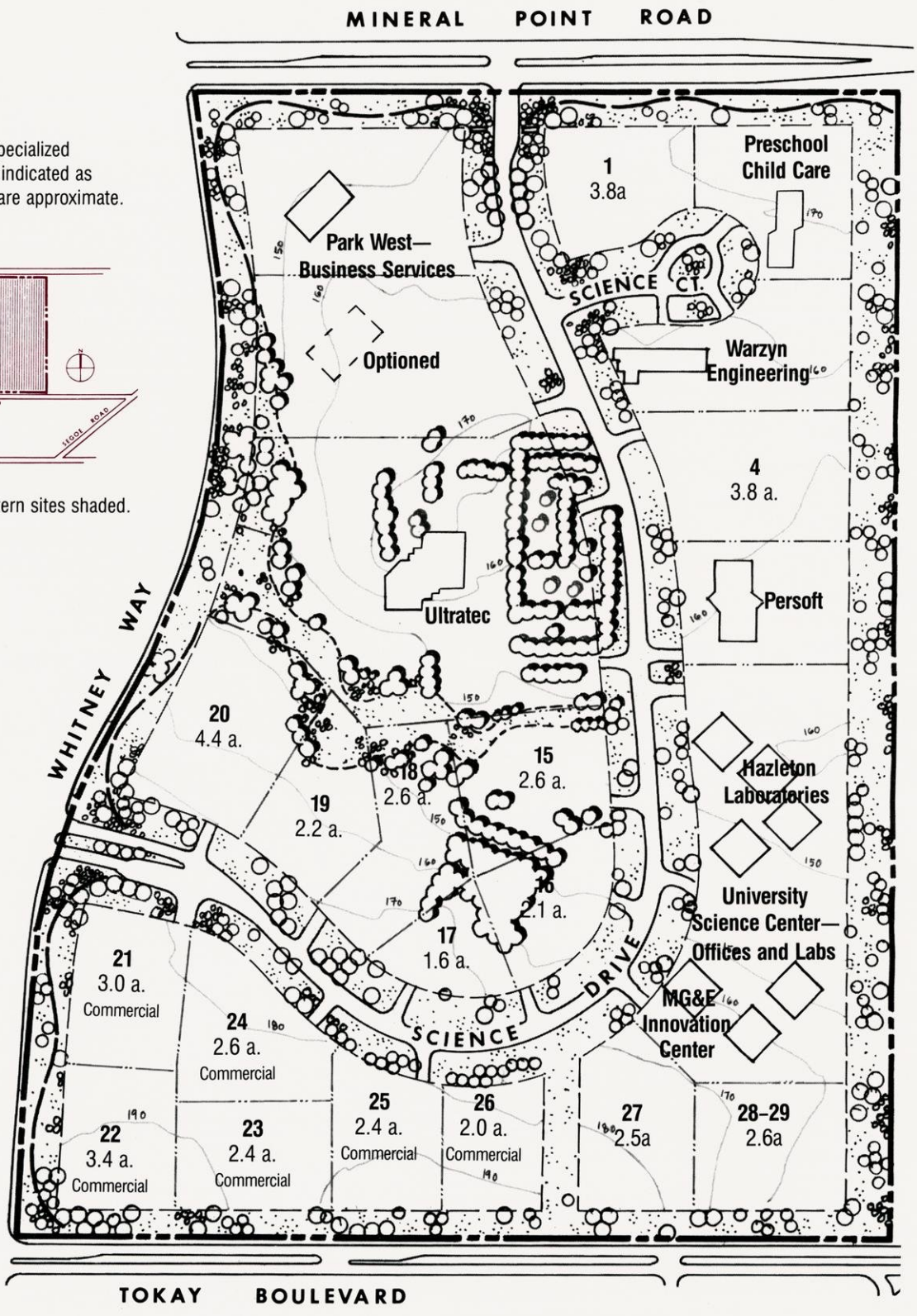
Outline of research park with western sites shaded.

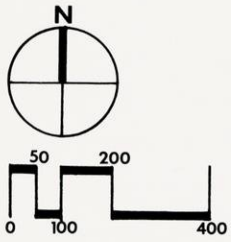
University Research Park–East

All sites are zoned Research Park Specialized Manufacturing (RPSM) except sites indicated as commercial (C–2). Acreage figures are approximate.



Outline of research park with eastern sites shaded.





For More Information Contact:
University Research Park, Inc.
1265 Wisconsin Alumni Research Foundation Building
610 Walnut Street
Madison, Wisconsin 53705
Phone: 608/262-3677
FAX: 608/263-2841

9/90

MADISON, WISCONSIN

An Abundance of Culture and Diversity

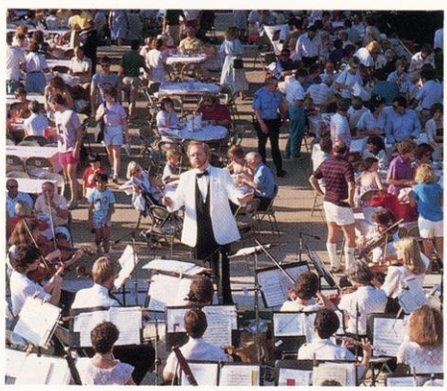
With a population of 173,000, Wisconsin's capital is consistently ranked among the nation's most livable cities. Set among rolling hills, 5,000 acres of public parks and woodlands, and four lakes covering 18,000 acres, Madison is a friendly and cosmopolitan city with a successful national and international business community. The city's major employers include Credit Union National Association Mutual and its affiliates, Rayovac, Oscar Mayer Foods Corporation, Ohmeda, Anaquest, Nicolet Instruments, Hazleton Laboratories, the State of Wisconsin and the University of Wisconsin. Over 200 "high-tech" related firms are located in the Madison area. Madison Gas and Electric provides reliable utility services at competitive prices and actively supports the growth of the area's high-technology industry.

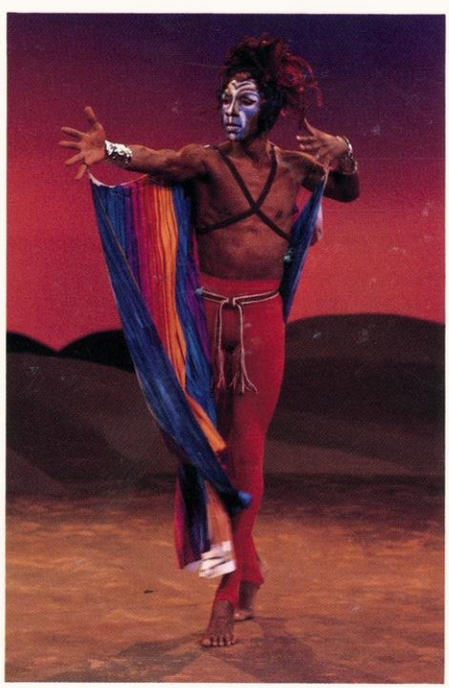
Madison's quality of life is evident in its rich cultural and recreational offerings, which range from music and live theater to street festivals, Big Ten college sports, year-round recreational activities and one of the nation's most extensive systems of bicycling paths and lanes. There are over 16 theater companies in the area including the Tony-nominated American Players Theater.

The Madison Metropolitan School District has an outstanding record of success. Three-quarters of Madison students score above California Achievement Test national averages. Wisconsin has had the first or second highest S.A.T. scores in the nation for many years. Computer, foreign language and science instruction and extracurricular activities are readily available. Madison Area Technical College, part of Wisconsin's highly regarded vocational education system, specializes in associate degrees, vocational diplomas and apprenticeships. Customized training for companies is done on site or in campus laboratories and classrooms.

Wisconsin's taxes and cost of living are highly competitive in the Midwest and nationally. Forty-seven states generate a greater portion of their revenue from business than Wisconsin. Our top income tax rate is less than seven percent. Inheritance and gift taxes are being eliminated and capital gains are only partially taxed. A family of four with an income of $75,000 in Madison has a total annual cost of living lower than if they lived in other growing high technology areas such as Boston, Minneapolis, Phoenix, Troy, San Jose, Portland or Tampa. Comparable executive housing costs 25% less in Madison than in these cities. Crime and traffic hassles are minimal.

Madison, Wisconsin is located near the Great Lakes and on the interstate system only 140 miles from Chicago, Illinois and 288 miles from Minneapolis, Minnesota in the midwestern United States. Madison's airport has 80 flights daily served by six airlines.





"Madison, the good life in America"

Life Magazine