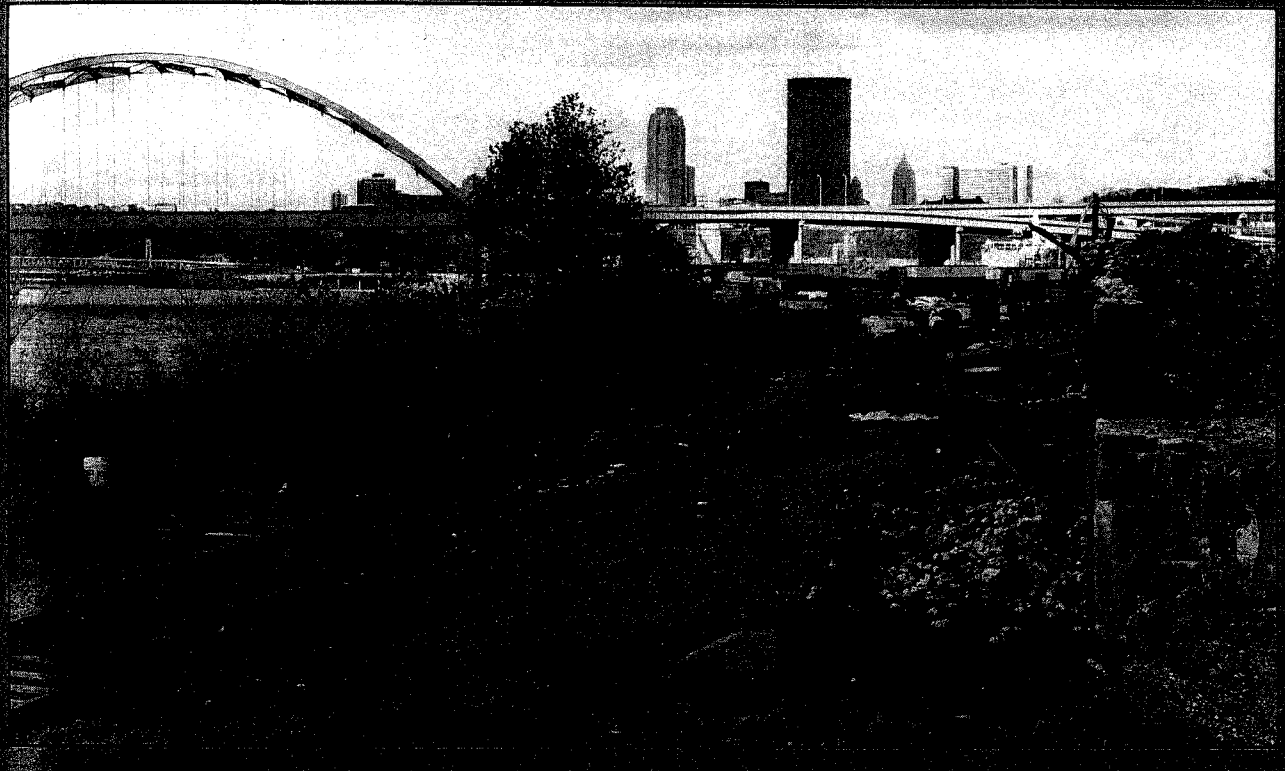
# TECHNOLOGY and INDUSTRY PARK



## AN EVALUATION OF DEVELOPMENT POTENTIAL AND STRATEGIES FOR THE URBAN REDEVELOPMENT AUTHORITY OF PITTSBURGH

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## AN EVALUATION OF DEVELOPMENT POTENTIAL AND STRATEGIES FOR THE URBAN REDEVELOPMENT AUTHORITY OF PITTSBURGH

**November 11–16, 1984**

**A Panel Advisory Service Report**
ULI–the Urban Land Institute
1090 Vermont Avenue, N.W.
Washington, DC 20005

# ABOUT ULI–THE URBAN LAND INSTITUTE

ULI–the Urban Land Institute is an independent research organization that conducts research; interprets current land use trends in relation to the changing economic, social, and civic needs of our society; and disseminates pertinent information leading to the best and most efficient use and development of land.

Established in 1936 as a nonprofit institute supported by the contributions of its members, ULI has earned recognition as one of America's most highly respected and widely quoted sources of information on urban planning, growth, and development.

Members of the Washington, D.C.–based Institute include land developers, builders, architects, city planners, investors, planning and renewal agencies, financial institutions, and others interested in land use.

This panel advisory service report is one of a series of research publications to further the objectives of the Institute and to make authoritative information generally available to those seeking knowledge in the urban field.

Claude M. Ballard
President
ULI–the Urban Land Institute

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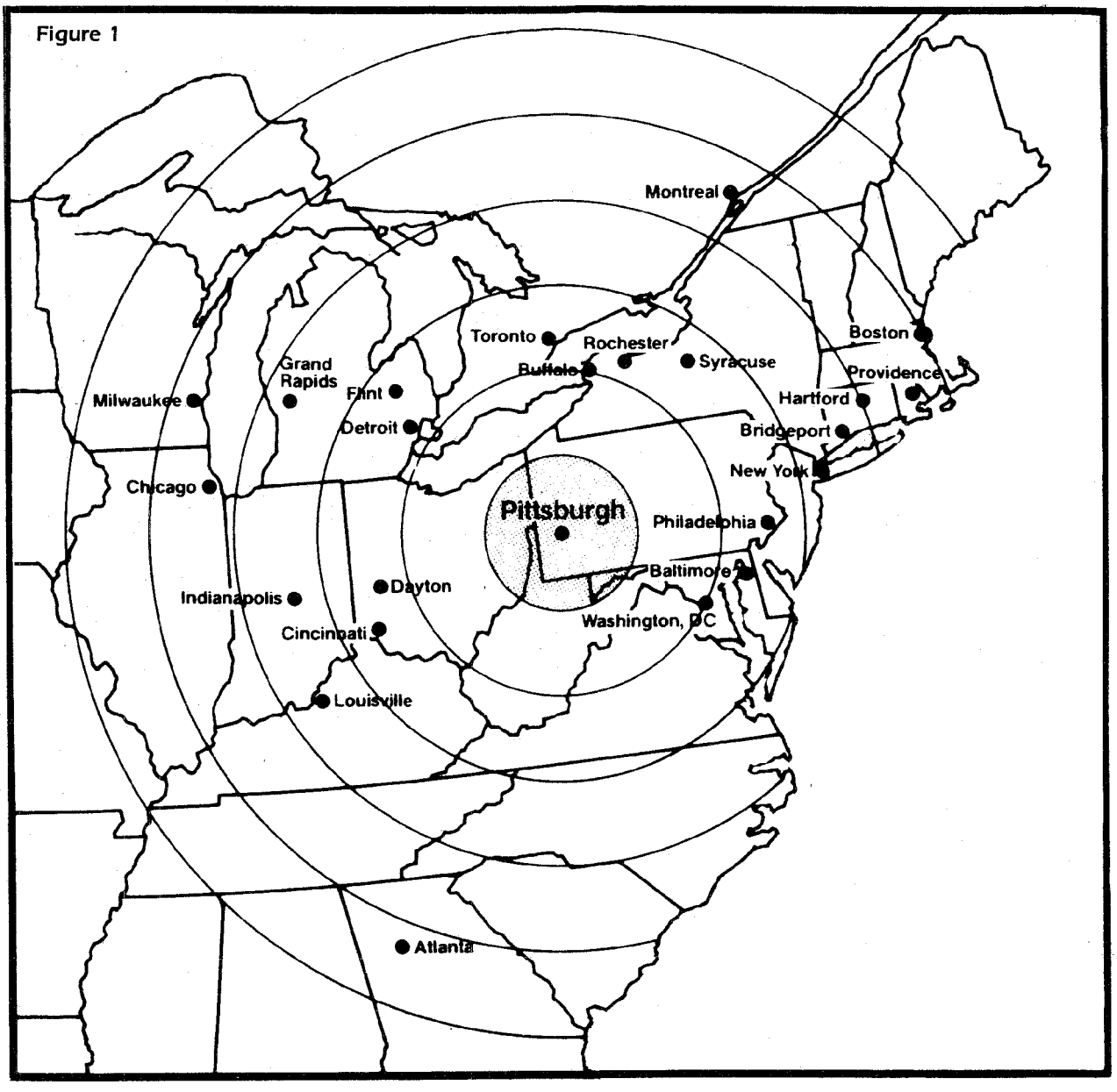
Printed in the United States of America

# CONTENTS

**FOREWORD** . . . . . 1
**ACKNOWLEDGMENTS** . . . . . 2
**PANEL MEMBERS AND STAFF** . . . . . 3
**THE PANEL'S ASSIGNMENT** . . . . . 5
**SUMMARY OF RECOMMENDATIONS** . . . . . 6
**FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS** . . . . . 9
The Setting . . . . . 9
Market Potential . . . . . 13
Site Planning and Urban Design . . . . . 19
Development Strategy . . . . . 27
Implementation . . . . . 31
**APPENDIX A:** Inventory of Major Industrial and R&D Developments: Pittsburgh Metropolitan Area . . . . . 36
**ABOUT THE PANEL** . . . . . 39




Seventy percent of the U.S. population and 70 percent of its manufacturing are within 600 miles of Pittsburgh.

Source: *Urban Design International* (Spring 1984).

# FOREWORD

The Urban Redevelopment Authority (URA) of Pittsburgh, the city's principal redevelopment agency, has focused attention on the goal of transforming the economy of the city and the region from one heavily dependent on basic manufacturing industries to a more diversified and forward-looking one. A J&L steel plant site recently acquired by URA represents a key opportunity to attract the knowledge-based industries upon which diversification rests. It is the city's first acquisition of surplus land used for steel mills.

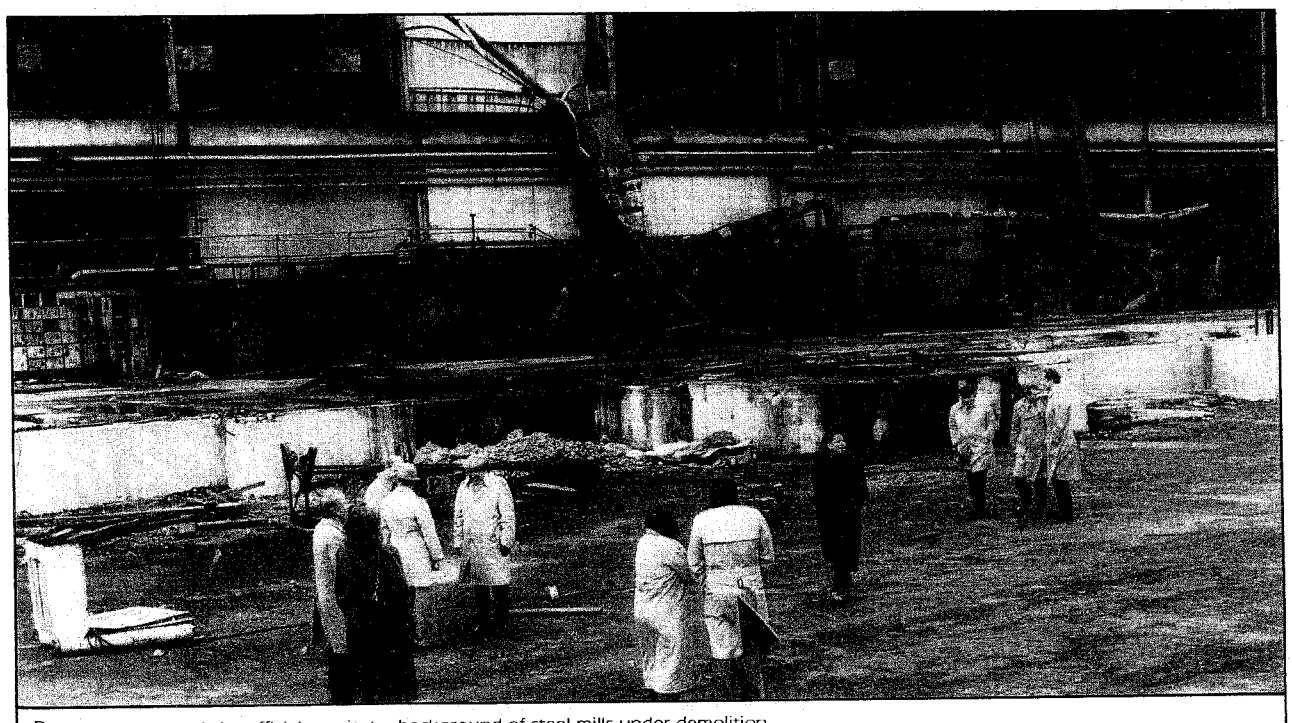
URA's concept for the site is to link the resources of the government, university, and corporate communities to attract sufficient advanced-technology industries to spawn additional investments that will continue similar economic development. In the interest of achieving a comprehensive view of the site's potential for development, URA sponsored a ULI panel advisory group to conduct an on-site evaluation, considering the site's market potential, site planning, possible development strategies, and implementation of the project. This report records the panel's overall findings, conclusions, and recommendations, which were presented orally at the William Penn Hotel on November 16, 1984.

ULI has undertaken over 130 panel assignments since the program began in 1947. Through its Panel Advisory Service, ULI makes technical expertise available to requesting communities, developers, and other organizations. To fit the needs of each panel assignment, panel members are carefully selected from ULI's 10 councils:

- Urban Development/Mixed-Use Council
- Commercial and Retail Development Council
- Industrial and Office Park Development Council
- Community Development Council
- Residential Development Council
- Recreational Development Council
- Small-Scale Development Council
- Federal Policy Council
- Development Regulations Council
- Development Services Council.

The members of the Pittsburgh panel were selected because of their extensive knowledge and experience in fields related to the assignment, including industrial and office development, land planning, feasibility analysis, development marketing, downtown revitalization, and public/private development and management. All panel members donate their time and effort to the Panel Advisory Service as a contribution toward furthering ULI's work and objectives.

The panel members and ULI hope this report will provide the sponsors with practical ideas and suggestions for the development of the J&L site to the benefit of the Pittsburgh community.



Panel members and city officials against a background of steel mills under demolition.

# ACKNOWLEDGMENTS

Both personally and on behalf of ULI–the Urban Land Institute, the panel members and staff thank the city of Pittsburgh's Urban Redevelopment Authority for the opportunity to help evaluate the development potential and opportunities of the former J&L steel plant site.

Specifically, the panel thanks Paul C. Brophy, Executive Director, and Rebecca A. Lee, Director, Economic Development Department, as well as the staff of the Urban Redevelopment Authority who did the advance work, prepared an excellent briefing package on the Pittsburgh region and the J&L site (enabling panel members to arrive in Pittsburgh better prepared than for most panel assignments), and arranged our interviews, tours, and support services.

Thanks are also extended to the financial sponsors of the panel: The Pittsburgh Foundation, the Pennsylvania Department of Community Affairs, and the Westinghouse Corporation Foundation.

While it is difficult to acknowledge the many individuals who have been of great help to the panel, the panel would like to cite especially the contributions of the following people:

John P. Robin, Chairman, Urban Redevelopment Authority of Pittsburgh

Robert Lurcott, Director, Department of City Planning, City of Pittsburgh

Frank Brooks Robinson, Executive Director, Regional Industrial Development Corporation of Southwestern Pennsylvania

Jerome Dettore, Director, Department of Planning and Engineering, Urban Redevelopment Authority of Pittsburgh

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Evan Stoddard, Manager of Policy, Analysis, and Project Development, Economic Development Department, Urban Redevelopment Authority of Pittsburgh

Steven Zecher, Economic Development Specialist, Economic Development Department, Urban Redevelopment Authority of Pittsburgh.

The panel's appreciation is also extended to the scores of local businesspeople, civic leaders, officials from the universities and other local institutions, and community and neighborhood representatives who shared their views and expertise on conditions in Pittsburgh and their vision of its future.

Finally, the panel thanks the people who worked so efficiently to type and collate the many iterations of the draft report—Marilyn Whiting, Mary Thomas, Donna Kirsch, Cydney Kinter, Mara Doss, Paula Ziemski, and Anita Stec—and those who helped prepare the graphics for the oral presentation of the report on Friday, November 16—Fred Swiss, Department of City Planning; Kenneth Britz, Urban Redevelopment Authority; Geoffry Radkoff, Urban Redevelopment Authority; and David Libby, Urban Redevelopment Authority.

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The panel formally presents its findings to the mayor and other city officials.

Vacant steel mill structures and an operating galvanizing plant (left foreground) currently occupy the site.

# THE PANEL'S ASSIGNMENT

In October 1983, the Urban Redevelopment Authority (URA) of Pittsburgh purchased 51 acres of the former J&L Pittsburgh Works Hot Strip Mill from the Park Corporation, committing almost $4 million to the acquisition through a $1 million city revenue bond, almost $2 million from URA's industrial land reserve fund, and a $1 million grant from the Pennsylvania Department of Commerce. URA proposes to enter into a development agreement with the Regional Industrial Development Corporation (RIDC) of Southwestern Pennsylvania for the marketing and development of the project.

The riverfront J&L site is conveniently located near the downtown corporate and administrative center and near universities and health complexes in the Oakland neighborhood. URA's concept for development is to create space for the growing number of advanced-technology firms originating from the Oakland institutions and for other growing knowledge-based firms located in the city; it seeks also to attract firms seeking locations within the Pittsburgh region. URA envisages a two-tier development framework—incubator buildings under the auspices of the RIDC and others and the proposed development on the J&L site—the amount of development necessary to keep new advanced-technology firms in Pittsburgh, to attract established advanced-technology and support firms to the city, and to create skilled and semiskilled jobs for local residents.

The J&L site development project has tremendous significance for the economic transformation of Pittsburgh. Its conspicuous location adjacent to the regional core, prominence on a major transportation corridor, and recent history as an obsolete steel mill make the project highly visible and symbolically important. The regeneration of this industrial site is seen as a major expression of the city's efforts to strengthen Pittsburgh's industrial base.

The panel was asked to evaluate four major aspects of the J&L site's development potential—market potential, site planning and urban design, development strategy, and implementation—and to consider several questions about each aspect.

**■ Market potential**

1. Is advanced technology in fact the highest and best use of this particular site?
2. What are the advantages and disadvantages of the site for this and alternative uses?
3. How can the site be best used to fit into a regional economic development strategy?

**■ Site planning and urban design**

1. Would it be preferable to maintain limited access or open the site to the public?
2. How should the open space be developed and maintained?
3. How should the design of the Second Avenue frontage and the riverfront be treated?
4. How can the project's successful marketing be ensured?

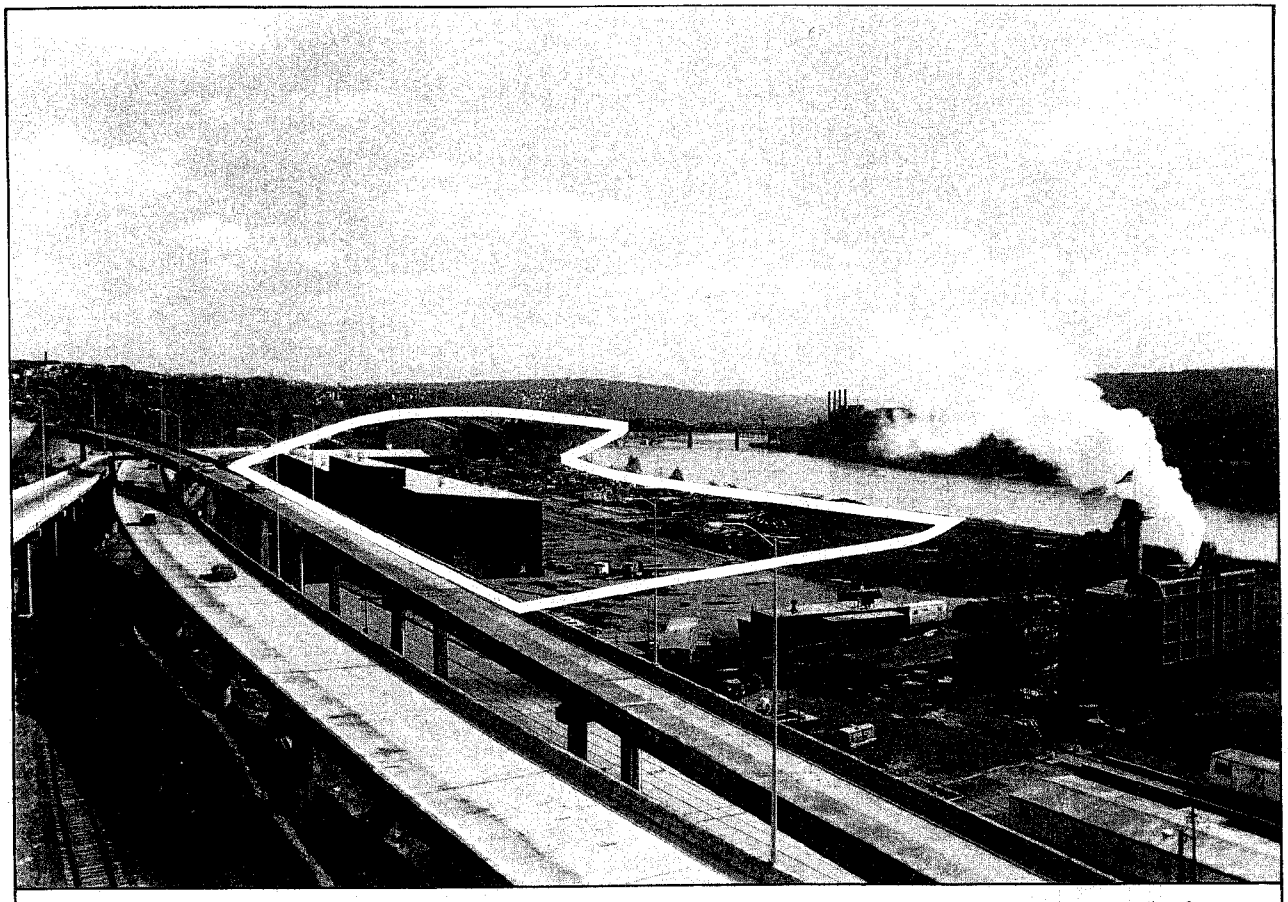
**■ Development strategy**

1. How should URA's concept be marketed?
2. How can the highest and best use of the site be ensured?
3. What role do speculative, multitenant buildings play?
4. How can links be forged with the area's universities and health centers?
5. What are the advantages of leasing and of selling building sites?

**■ Implementation**

1. How should URA relate to RIDC as the proposed developer?
2. What roles do other stakeholders in the community have to play?
3. What financing arrangements should be considered?
4. How should the development be managed?

While ULI's Panel Advisory Service has undertaken numerous studies of private sector and public sector projects since 1947, this assignment has been particularly challenging. The city's proposed use of the site is adventuresome but achievable. All too often municipalities conceive of an idea whose objectives are too wishful to be practicable. Further, the city of Pittsburgh has already gone beyond lip service in coping with the adversities of structural economic change that have undermined its historical economic prominence. It has in place several competent, intelligent, and energetic organizations that, with continued effort, can restore the city to an even more prominent place in the national and international economy than it enjoyed in the past. Panel members observed and were impressed by a broad willingness of Pittsburghers to rally to the support of ideas that promise benefits to the community but that may or may not have a direct payoff to them as individuals.



The J&L site marks the beginning of the industrialized Monongahela riverfront in Pittsburgh. Its redevelopment could spur upgrading for miles upriver.

# SUMMARY OF RECOMMENDATIONS

## TIMING

- Move ahead as quickly as possible but be patient. Turn down less than optimal sales opportunities. The site has excellent potential, and waiting to go to market until its full value can be realized will be well worth the wait.
- Develop the site completely—including infrastructure and landscaping—before marketing. Piecemeal marketing as tracts are cleared will detract from the value of the project, because buyers will not pay high prices for a site or build top-quality buildings in a distressed environment.

## MARKET

- Adopt a shotgun rather than a rifleshot approach to marketing. Rely on high standards for design and use and high rents to ensure appropriate tenants.
- Consider advanced-technology R&D and manufacturing firms as the primary market, but remain flexible in the choice of tenants.

## DESIGN

- Always bear in mind that this 51-acre site is potentially the seed of much greater development along the river, and develop it accordingly.
- Emphasize the public character of the park. Provide public access, public spaces along the river, views to the river, and an open feeling.
- Use strong protective covenants and restrictions to ensure quality design and compatible uses. Amend the proposed covenants and restrictions as detailed in the report.
- Do not compromise on quality in design or use.
- Strive for excellence in landscaping, entrances, and waterfront treatment. Completely transform the Second Avenue environment.

## USES

- Adopt a flexible subdivision plan and direct development through general targets for site use.
- Include support facilities for park employees.
- Create equal opportunities for all Oakland scientific and educational institutions to participate in the park's development.
- Build speculative buildings.
- Provide financial and programmatic support for start-up advanced-technology industries to locate in the park.

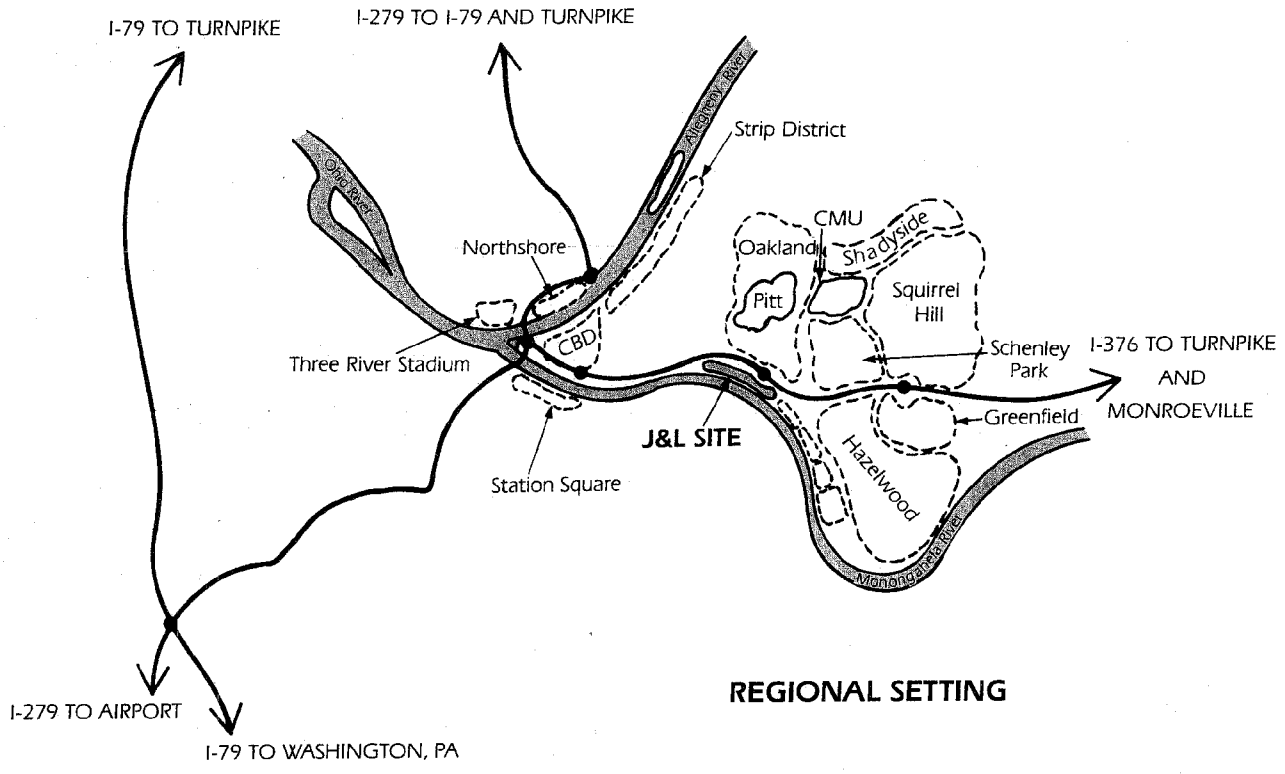
## DEVELOPMENT AND MARKETING

- Use RIDC as the master developer but open up the process to competitive developers.
- Promote a competitive building program open to all qualified developers who will abide by the design and use guidelines.
- Put a sunset clause in the development agreement: if performance is not satisfactory, URA has the right to find another developer.
- Require RIDC to provide a full-time project development manager.
- Set acceptable sales prices for land in the development agreement. Do not sell to anyone at below-market prices.
- Sell rather than lease land for development. Include buyback clauses in sales agreements that can be exercised if plots are not developed within a reasonable time.
- Market the project aggressively and internationally, using the brokerage community and Pittsburgh's network of economic development organizations.

## OTHER RECOMMENDATIONS

- Encourage use of mass transit.
- Consider major improvements in access.

**Figure 2**




**REGIONAL SETTING**

# FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

## THE SETTING

### THE SITE

The 51-acre tract of land that the Urban Redevelopment Authority of Pittsburgh purchased in October 1983 from the Park Corporation is centrally located in the city of Pittsburgh. It is bounded by Birmingham Bridge on the west, Second Avenue and the Penn Lincoln Parkway (I-376) on the north, Bates Street and its extension toward the Monongahela River on the east, and the Monongahela River on the south. Long-vacant steel mill structures, ranging from 7,500 to 160,000 square feet, currently occupy the site. Under the terms of the purchase agreement, the Park Corporation is to clear the property and bring it to a buildable state by October 1986. The site is relatively flat, with an elevation of some 22 feet above the median water level mark.

By car, the site is approximately five minutes from downtown Pittsburgh to the west and five minutes from the Oakland neighborhood to the north, where most of the city's health research institutions and universities are centered. Regional access is afforded via I-376 to the Pittsburgh International Airport (approximately 25 minutes) and via Crosstown Boulevard to I-279 and points north. I-279 westbound connects with I-79 northbound to Youngstown and Erie and southbound to southwestern Pennsylvania and West Virginia. I-376 eastbound goes through Wilkinsburg and Monroeville and connects with I-76, the main route to Harrisburg and Philadelphia.

The site can be seen from the Penn Lincoln Parkway (I-376) and the Boulevard of Allies, a major thoroughfare immediately north of the parkway. These roads, together with a B&O rail line, form a steeply terraced buffer between the site and the neighborhoods of Oakland.

### REGIONAL SETTING

The Pittsburgh metropolitan region (using the pre–June 1983 U.S. Census Bureau definition) has a population of 2,263,894 distributed among four counties: Allegheny (population 1,450,085, including the city of Pittsburgh with a population of 423,938), Beaver (population 204,441), Washington (population 217,074), and Westmoreland (population 392,294). It is the thirteenth largest U.S. metropolitan area.

**Population and Income.** During the 1970s, the region's population declined by more than 137,000, from 2.4 million in 1970 to 2.26 million in 1980, or by 5.7 percent. The losses in population occurred in Allegheny County (−9.7 percent) and Beaver County (−1.9 percent); Washington and Westmoreland Counties gained population at rates of 2.9 percent and 4.1 percent, respectively. The biggest population decline occurred in the city of Pittsburgh (−18.5 percent). Among the four counties, Allegheny enjoys the highest per capita income ($9,704 in 1980), compared to $9,218 for the entire metropolitan area.

**Labor Force.** As of 1980, the regional labor force numbered 1,014,000, an 11.2 percent increase from 1970. The largest segment of the labor force—665,000, or 66 percent—lives in Allegheny County.

**Employment.** The 30-year trend has been a net gain in jobs in the Pittsburgh region, although a serious decline occurred from 1980 to 1983. Despite a net population decline and drastic reductions in manufacturing jobs in the Pittsburgh region, total employment from 1970 to 1980 increased 9.3 percent. Much of this increase occurred in the latter half of the decade: between 1975 and 1980, employment in the region increased 6.3 percent, from 892,900 to 949,400, accounting for 70 percent of the total increase in the 1970s. Employment in service industries from 1974 to 1980 went up 30.3 percent, and employment in finance, insurance, and real estate climbed 19 percent. Manufacturing employment—especially in steel and other durable goods—continued its long-term downward slide, decreasing 8 percent between 1974 and 1980.

The recession beginning in 1980, however, induced a reversal of these long-term trends in employment growth. Between 1980 and 1983, approximately 100,000 jobs were lost, 91,000 of them in manufacturing. Nonetheless, employment in service industries continued to grow in the first three years of the 1980s by 23,000, an 11 percent increase.

The changing distribution of employment among industries indicates a diversification of the economy in which services and information-based industries (finance, health care, education, communications, and trade) are playing an increasingly larger part. Table 1 shows employment growth in selected industries and testifies to ongoing industrial diversification in the region. The Pittsburgh region's employment mix of manufacturing and nonmanufacturing jobs is today fairly similar to the national mix, whereas 30 years ago it had a much higher than average concentration in manufacturing employment.

**Table 1**
**EMPLOYMENT CHANGES IN SELECTED INDUSTRIES: 1960–1980**

| | Pittsburgh Region | | United States |
|---|---|---|---|
| | Number | Percent | Percent |
| Nonelectric Machinery | 4,393 | 21.5 | 80.2 |
| Electric Machinery | 6,565 | 36.0 | 67.1 |
| Transportation Equipment | 5,262 | 67.1 | 17.1 |
| Instruments | 2,826 | 86.3 | 45.6 |
| Selected Services[1] | 102,700 | 91.4 | 289.7 |
| Hospital Employment | 20,033[2] | 74.3 | 139.8 |
| Educational Services | 39,050 | 106.0 | 138.9 |
| Retail Trade | 47,500 | 42.9 | 70.0 |
| Wholesale Trade | 10,400 | 24.6 | 77.1 |
| Headquarters Administration | 12,361 | 54.6 | – |

[1]Excluding hospital, health, and educational services.
[2]Best estimate. In the city of Pittsburgh, hospital employment grew 14,200, a rate of 114 percent.
Sources: U.S. Bureau of the Census; Pennsylvania Industrial Census; U.S. Bureau of Labor Statistics; and American Hospital Association.

**Growth Strategy.** The fact that Pittsburgh's economy has historically been dominated by heavy manufacturing—in 1955 nearly half the region's workforce was in manufacturing, and one out of every five jobs was in basic steel—imposes some perceptual and psychological constraints on the region's ability to make a transition to a more diverse and technologically oriented economy. Over the years, a number of organizations comprised of civic and business leaders have worked on elaborating strategies to address the widely perceived need for a better understanding of and a sense of direction for the region's economy.

The most recent effort to develop a regional economic strategy is by the Allegheny Conference on Community Development, a community action organization founded over 40 years ago and comprised of leaders from various sectors of the Pittsburgh economy—business, finance, labor, education, and government. In November 1984, the Allegheny Conference issued a report, *A Strategy for Growth: An Economic Development Program for the Pittsburgh Region*, which delineates three general objectives for growth: (1) to step up business activity and job growth through the development of new companies, the attraction of new businesses from outside the area, and the expansion of existing businesses; (2) to improve the economic environment through the development of human resources, improvement of the labor climate, and better marketing in the area; and (3) to upgrade the area's transportation systems and other basic physical facilities. The strategy is predicated on five basic premises:

- *"The strategy should recognize the inevitability of change.* This is the single great lesson of the past 30 years. The forces that have been at work are irreversible. Never again will Pittsburgh and its surrounding communities be a region that depends so strongly on primary metals and other durable goods manufacturing.
  "Nor would a return to this state be desirable. While durable goods manufacturing remains a key part of our economy, concentration on a single type of industry can prove to be a great vulnerability. The stable, successful metropolitan area of the future is not likely to be a Steel City, or a Motor City . . . or even a Silicon Valley.
- *"The strategy should provide for many advances on a broad economic front, rather than a single thrust.* Advanced technology companies, for example, will undoubtedly play a key role in our future. But the region's economy should have diversity and balance. Diversity cushions the effects of drastic swings or drop-offs in any one industry.
  "The strategy proposed in this report envisions an economy diversified in a number of ways: with a mix of businesses in different industries; with a mix of both product-oriented and service-oriented industries (and with *linkages* between products and associated services); and with a mix of mature and new activities.
- *"The strategy should be long-term and evolve naturally from within the region, rather than try to impose short-term 'fixes' upon the region.* When a fundamental transformation is taking place, fundamental adjustments are necessary. Indeed, the mandate to the Allegheny Conference's Economic Development Committee was to design methods for making these fundamental adjustments . . . not to search for immediate cures for current problems.
  "On unemployment, for instance: While it is not possible to create massive numbers of new jobs this year or next, the strategy aims for an economy that is fundamentally less likely to have severe cycles of unemployment in the future.
- *"The strategy should be private sector oriented and market driven.* Economic development requires, above all else, investment and risk taking. The private sector is the engine for this economic activity. Thus, the strategy proposed here is oriented toward encouraging private investment.
  "At the same time, there is need for a strong and supportive public sector. In a number of important areas—transportation improvements, training and retraining, and tax policy, to name a few—the public sector plays a leading role. In other instances its job, just as important, is to reinforce private investment decisions by helping provide a supportive climate for economic activity.
- *"The strategy should call for coordinated action rather than central planning.* Centralized economic planning tends to be inflexible and unresponsive. Thus, the strategy presented here does not call for any master planning agency, nor for a great pro-

liferation of new specialized agencies. The need is for action, and in most instances, the organizations required are already in place. In some cases, existing agencies will need to be empowered with additional funds and staff resources to do the job suggested. In other situations, what is needed is greater coordination and cooperation among various agencies and institutions."

The panel finds this framework of premises and objectives to be a good one within which to analyze the development potential of the J&L site.

## ADVANCED-TECHNOLOGY RESOURCES

The panel recognizes that the seeds for significant growth in advanced-technology companies are present in Pittsburgh. Pittsburgh, it notes, is farther along in the retooling of its industry to fit the twenty-first century than most other cities in the United States. According to the Pittsburgh High Technology Council—a specialized trade association established in 1983 to nurture the environment for the growth of advanced-technology industry—advanced-technology companies currently account for 20 percent of the manufacturing jobs in the region. Many of these jobs are in electronics industries. According to the Allegheny Conference on Community Development, the Pittsburgh region has 170 private R&D laboratories, including 40 major corporate facilities, employing more than 25,000 workers and spending nearly $1.5 billion annually. Westinghouse, for example, is one of the region's major industries and is carrying out substantial R&D on the cutting edge of technology.

Seven major universities and colleges are located within the city of Pittsburgh—the University of Pittsburgh, Carnegie-Mellon University, Duquesne University, Robert Morris College, Chatham College, Carlow College, and Point Park College. A total of 29 colleges and universities are located in the region, with an estimated enrollment of over 95,000 students. The University of Pittsburgh and Carnegie-Mellon University are strongly oriented toward R&D, and their combined spending on R&D totals nearly $100 million annually.

The national reputation of a number of the science and engineering departments in these academic institutions is very high, and local universities have a number of technology-based strengths:

- **Robotics.** The Robotics Institute at Carnegie-Mellon University is the largest university-based robotics program in the United States. In FY 1984, its research funding exceeded $8 million, with about 70 percent of research funds coming from corporate sources. In the planning stage is a National Center for Robotics in Manufacturing, a facility to provide for full-scale research and training in the applications of robotics to manufacturing in the "factory of the future." The Robotics Institute stresses the establishment of working relationships with large and small manufacturing and industrial companies.
- **Computer Science/Artificial Intelligence.** Carnegie-Mellon University is a leading research university in computer science and artificial intelligence. During the week the panel was in Pittsburgh, the U.S. Department of Defense announced the selection of Carnegie-Mellon University for a $103 million, five-year contract to set up a Software Engineering Institute (see Figure 3), a center for developing better and faster ways of producing computer software. A private consortium of defense contractors is considering establishment of a nearby center to take advantage of the opportunities for technology transfer from the institute.
- **Biomedical Research.** Approximately $40 million is spent on biomedical R&D at the University of Pittsburgh and affiliated hospitals.
- **Materials.** Both the University of Pittsburgh and Carnegie-Mellon University are strong in materials research, particularly as it relates to metallurgy.[1]

The technology-based R&D carried on at these universities has spun off a number of small, advanced-technology companies, most of which tend to cluster around and feed off the universities. Most new business development has been in computer software, while relatively few commercial endeavors have been started in biomedical technology, industrial processes, or advanced materials.

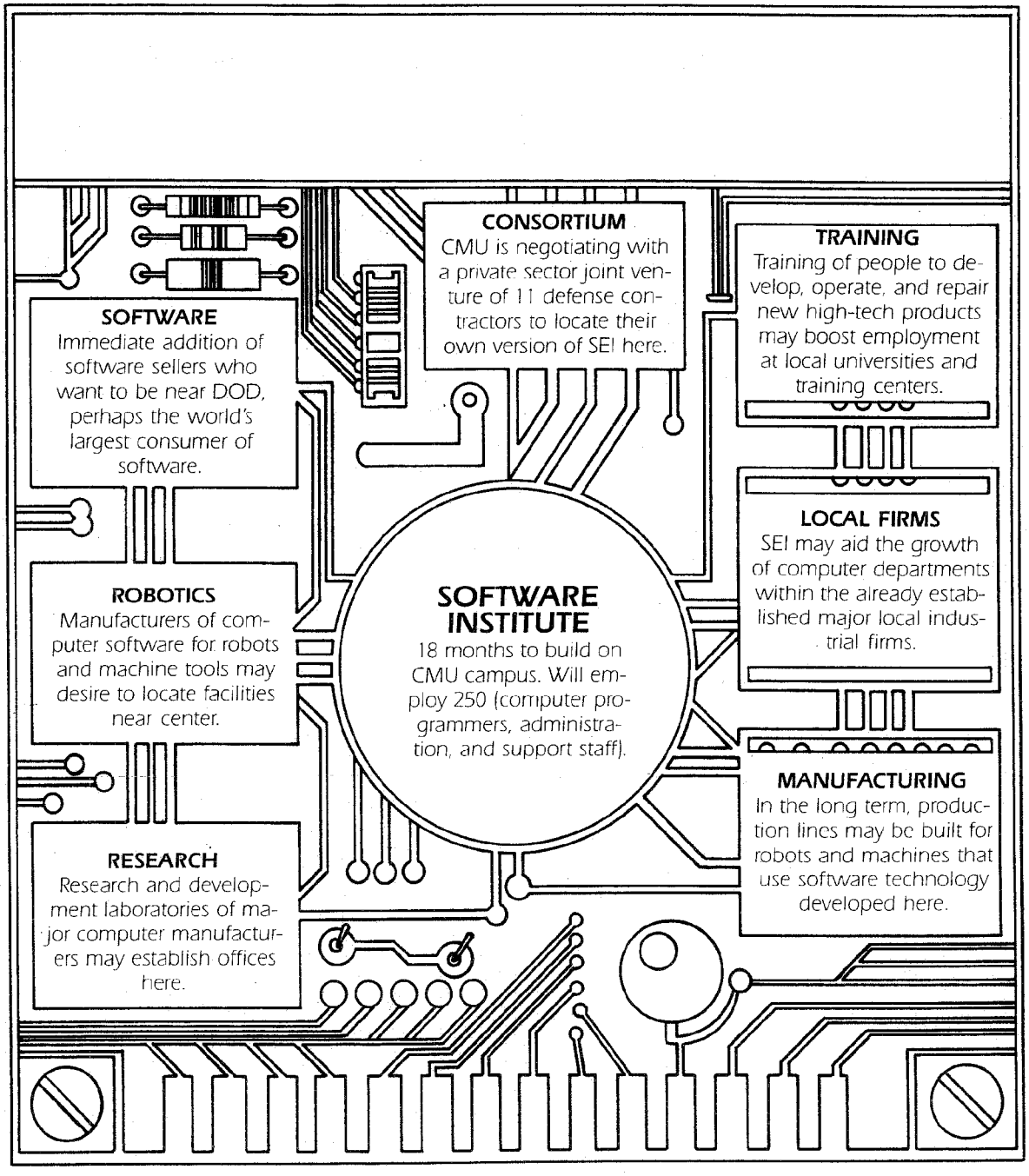
The transfer of technology from the universities to the private sector is being aided by a variety of programs:

- **The Western Pennsylvania Advanced Technology Center,** funded by the Ben Franklin Partnership of the Commonwealth of Pennsylvania and sponsored by a consortium centered around Carnegie-Mellon University and the University of Pittsburgh, sponsors R&D projects that will result in new products and processes, provides entrepreneurial assistance to help bring new products and processes from the laboratory to the marketplace, and participates in training and retraining the labor force. Created in 1983, its budget for 1984–85 is $16.2 million, and it is focusing its program in robotics, biological and biomedical technology, and high-technology materials and processes.
- RIDC is establishing two 35,000-square-foot **University Technology Development Centers.** These centers are incubator buildings located in the University-Oakland area, offering space for light manufacturing, assembly, distribution, offices, or R&D. The first center is built and 50 percent leased at $8 a square foot. The second center is in the planning stage.

[1] Allegheny Conference on Community Development, *Advanced Technology in the Pittsburgh Region: Assessment and Recommendations. A Report of the Advanced Technologies Task Force* (Pittsburgh: Allegheny Conference on Community Development, 1984).

**Figure 3**
**OFFSHOOTS OF THE SOFTWARE ENGINEERING INSTITUTE**

Carnegie-Mellon University's $103 million Department of Defense contract may create jobs in a number of areas. CMU President Richard Cyert describes seven theoretical offshoots from the Software Engineering Institute (SEI).




**Source:** Jim Conaway/*The Pittsburgh Press* (November 15, 1984).

- **The University of Pittsburgh's Foundation for Applied Sciences and Technology** is seeking ways to put "shelf technologies" (technologies developed by corporate laboratories but shelved because they did not mesh with the companies' current priorities) to use. One observer characterizes Pittsburgh as a prototype city in terms of the high degree of cooperation that has been forged between the laboratories of major corporations and universities.

In the panel's view, all the necessary elements for an expansion of Pittsburgh's advanced-technology industries are present, and the J&L site is appropriate for their use. An imaginative development plan and aggressive implementation can make the Technology and Industry Park a successful reality.

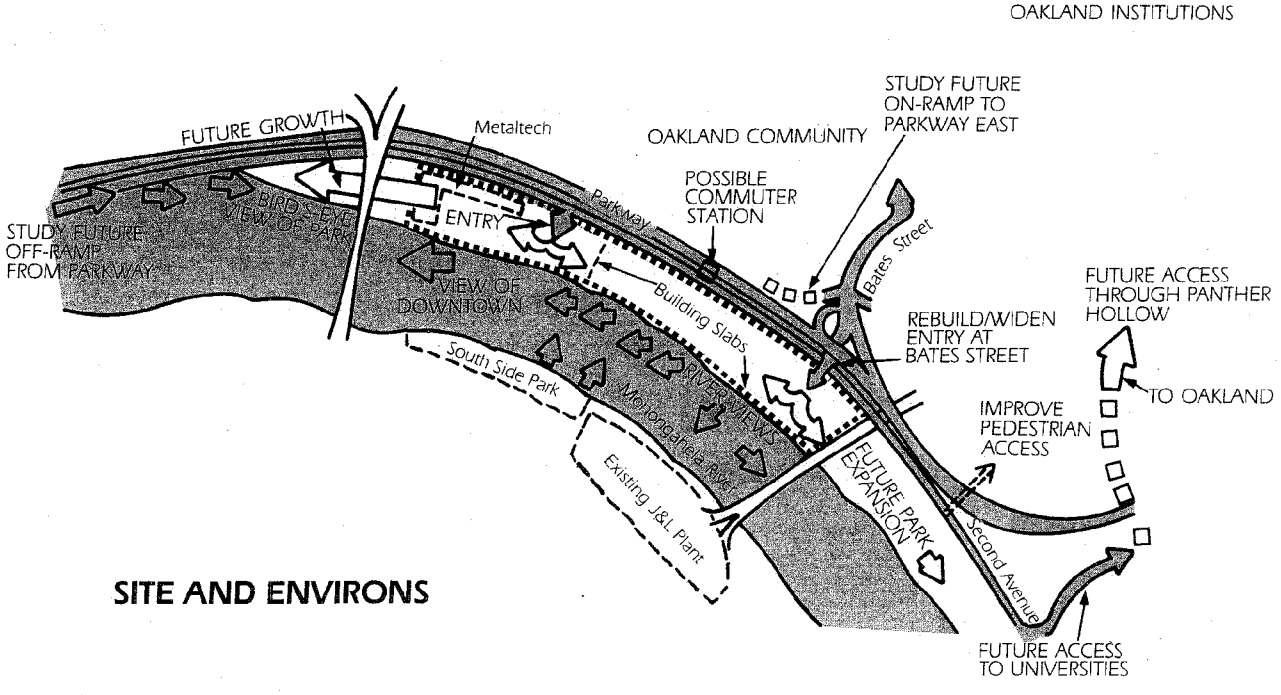
## MARKET POTENTIAL

### LOCATIONAL AND PHYSICAL ATTRIBUTES OF THE SITE

The site has a number of assets that enhance its market potential:

- Proximity to the educational and medical complexes in Oakland.
- Good regional access.
- Adequate size, permitting effective site layout and planning. No other comparable site is available within the 57 square miles comprising the city of

**Figure 4**




**SITE AND ENVIRONS**

Pittsburgh, but the site's width of only 500 feet is not ideal for a business park subdivision.

- Visibility from I-376.
- Undisturbed riverfront.
- Potential expandability. Some contiguous land to the west of the site and a great deal of land to its east might be available in the future. (The panel urges that decisions for the site be made with this expandability always in mind. The site will probably set the tone for whatever development occurs immediately upriver from it.)
- Proximity to preferred residential areas in the city.

The site also has locational and physical drawbacks, however:

- Difficult ingress to and egress from the site.
- Existing land uses on and adjacent to the site that are incompatible with proposed use by advanced-technology firms and light manufacturing. These incompatible industrial uses, though they provide jobs, should be at least screened from the rest of the project.
- Pollution in the river.
- The high cost of site improvement. The costs of raising the level of the site by 9 to 10 feet, of improving ingress, and of demolishing existing structures push up the base price of the land, making it higher than land costs in suburban industrial parks. Thick slabs from the steel mills cover up to three-quarters of the site. Engineering studies have not been undertaken to determine the cost of removing them, but all guesses are that it would be very high, perhaps prohibitively so. The panel favors more in-depth analysis of the slabs to determine the cost feasibility of removing them. The high costs of land and improvements might limit market opportunities to industries requiring a location close to downtown or to the advanced-technology firms in Oakland.

The J&L site is suited to the locational needs of R&D and manufacturing firms in the medical, electronics, communications, and computer software fields. Office, service, and associated uses with links to R&D and light manufacturing are also likely prospects for location there. The availability of direct links to the medical and scientific communities in Oakland as well as the site's proximity to downtown and its convenience to residential areas are key factors that distinguish it from other possible development sites. Table 2 shows the relative importance advanced-technology and light manufacturing firms attach to various of the site's characteristics, and Tables 3 and 4 indicate the degree to which the J&L site and an outlying industrial park, respectively, fulfill the locational attributes sought by such firms. (For a list of industrial parks in the Pittsburgh region, see Appendix A.) The ratings the ULI panel has assigned to the J&L site and, for comparison's sake, to RIDC Park West show that the J&L location would be significantly more attractive to R&D firms than RIDC Park West and also very attractive to scientifically oriented manufacturing firms.

**Table 2**
**SITE FACTOR RATINGS OF SELECTED INDUSTRIES[1]**

| | R&D Industries | | | | Manufacturing Industries | | | |
|---|---|---|---|---|---|---|---|---|
| **Site Characteristics** | **Medical** | **Electronics** | **Communications** | **Computer Software** | **Medical** | **Electronics** | **Communications** | **Computer Software** |
| Physical Proximity to Research/Industrial Linkages | 10 | 10 | 8 | 5 | 8 | 5 | 5 | 5 |
| Desire for Proximity to Research/Industrial Linkages | 10 | 8 | 8 | 10 | 8 | 8 | 8 | 8 |
| Proximity to Downtown | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Proximity to Airport | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Convenience to Residential Areas | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Availability of Educated/ Skilled Labor Force | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Regional Accessibility | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 |
| Ingress/Egress | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 4 |
| Land Cost | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Availability of Public Transportation | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| TOTAL SCORE | 66 | 64 | 62 | 61 | 67 | 64 | 64 | 62 |

[1]Ratings on a scale of 1 (least favorable) to 10 (most favorable), based on interviews with representatives of selected industries.
Source: ULI panel.

**Table 3**
**ATTRIBUTES OF THE J&L SITE FOR SELECTED INDUSTRIES[1]**

| | R&D Industries | | | | Manufacturing Industries | | | |
|---|---|---|---|---|---|---|---|---|
| **Site Characteristics** | **Medical** | **Electronics** | **Communications** | **Computer Software** | **Medical** | **Electronics** | **Communications** | **Computer Software** |
| Physical Proximity to Research/Industrial Linkages | 10 | 10 | 10 | 10 | 4 | 4 | 4 | 4 |
| Desire for Proximity to Research/Industrial Linkages | 10 | 8 | 8 | 10 | 8 | 8 | 8 | 8 |
| Proximity to Downtown | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Proximity to Airport | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Convenience to Residential Areas | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Availability of Educated/ Skilled Labor Force | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Regional Accessibility | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Ingress/Egress | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Land Cost | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Availability of Public Transportation | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| TOTAL SCORE | 58 | 56 | 56 | 58 | 50 | 50 | 50 | 50 |

[1]Ratings on a scale of 1 (least favorable) to 10 (most favorable).
Source: ULI panel.

**Table 4**
**ATTRIBUTES OF RIDC PARK WEST FOR SELECTED INDUSTRIES[1]**

| | R&D Industries | | | | Manufacturing Industries | | | |
|---|---|---|---|---|---|---|---|---|
| **Site Characteristics** | **Medical** | **Electronics** | **Communications** | **Computer Software** | **Medical** | **Electronics** | **Communications** | **Computer Software** |
| Physical Proximity to Research/Industrial Linkages | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Desire for Proximity to Research/Industrial Linkages | 0 | 0 | 0 | 0 | 5 | 5 | 5 | 5 |
| Proximity to Downtown | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Proximity to Airport | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| Convenience to Residential Areas | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Availability of Educated/ Skilled Labor Force | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Regional Accessibility | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 |
| Ingress/Egress | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 4 |
| Land Cost | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Availability of Public Transportation | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TOTAL SCORE | 45 | 45 | 45 | 45 | 54 | 54 | 54 | 52 |

[1]Ratings on a scale of 1 (least favorable) to 10 (most favorable). RIDC Park West is a 230-acre industrial park located in Findlay and North Fayette, west of the city of Pittsburgh and close to the Greater Pittsburgh International Airport.
Source: ULI panel.

**Table 5**
**POTENTIAL ANNUAL ABSORPTION AT J&L SITE[1]**

| | 1988 | 1989 | 1990 | 1991 | 1992 |
|---|---|---|---|---|---|
| Buildings (square feet) | 80,000 | 100,000 | 120,000 | 140,000 | 150,000 |
| Land (acres) | 6–8 | 8–10 | 8–10 | 8–10 | 8–10 |

[1]For R&D and light manufacturing, assuming disposition beginning in 1986 and excluding special demand.

## ABSORPTION RATES

Assuming market land prices, the panel finds it likely that annual land absorption at the J&L site could begin (in 1988) at six to eight acres and increase thereafter to eight to 10 acres, with all the acreage absorbed by 1992. Building absorption could begin at 80,000 square feet and increase to 150,000 square feet by 1992 (see Table 5).

In reaching this conclusion, the panel examined the market characteristics of RIDC's three Pittsburgh area industrial parks. (Characteristics of the three parks are summarized in Table 6.) At Park West, which is located near Pittsburgh International Airport and is designated a foreign trade zone, building absorption is approximately 400,000 square feet a year, and land—at a reported asking price of $55,000 an acre ($1.26 a square foot)—is being absorbed at a current annual rate of 58 acres. The average building at Park West is 64,000 square feet. Included in the 400,000 square feet of building absorption is 120,000 feet of speculative space marketed by RIDC. At O'Hara Township Park, northeast of the city and near the first-class Fox Chapel residential area, 222,000 square feet of building space and 28 acres of land are absorbed per year, at a reported asking price of $50,000 an acre ($1.15 a square foot). Thorn Hill, close to the northwest perimeter of Allegheny County, has an annual building absorption rate of 114,000 to 200,000 square feet and a land absorption rate—at $25,000 an acre—of 29 acres. Because Thorn Hill contains mostly distribution facilities, however, its experience is not directly comparable to the proposed Technology and Industry Park. Although lacking in industries related to medical research or manufacturing, Park West and O'Hara both have a diverse mix of R&D and manufacturing facilities.

The panel thinks the proposed Technology and Industry Park in Pittsburgh, with its special attractiveness to advanced-technology users for both research and manufacturing, could command in the open market land prices more than twice as high as those at Park West or O'Hara. If marketed at large at market prices, annual land

**Table 6**
**MARKET CHARACTERISTICS OF RIDC INDUSTRIAL PARKS IN THE PITTSBURGH REGION**

| Facility | Year Opened[1] | Acres[2] | Number of Buildings[3] | Square Feet[4] | Land Development Completed[5] Percent | Land Development Completed[5] Acres | Acres Remaining |
|---|---|---|---|---|---|---|---|
| O'Hara Township Park | 1964 | 600 | 79 | 4,000 | 85 | 510.0 | 90 |
| Thorn Hill[6] | 1971 | 925 | 24 | 1,250 | 35 | 323.8 | 601 |
| Park West | 1979 | 230 | 18 | 1,150 | 75 | 172.5 | 58 |

| | Average Building Size (Square Feet) | Annual Absorption[7] Square Feet Since 1982 | Annual Absorption[7] Square Feet 1983 | Annual Absorption[7] Acres Since 1982 | Current Price/Acre[9] |
|---|---|---|---|---|---|
| O'Hara Township Park | 50,633 | 222,000 | [8] | 28.3 | $50,000 |
| Thorn Hill | 52,083 | 114,000 | 200,000 | 29.4 | 25,000 |
| Park West | 63,889[10] | 383,000 | 400,000 | 57.5 | 55,000 |

[1]Announced year of park's opening.
[2]Current inventory; park may have opened with less acreage.
[3]As of January 1984.
[4]Total floor area of improvements.
[5]Land development completed to date.
[6]Thorn Hill started with about 600 acres; land added later.
[7]Average annual absorption since 1982 and in 1983.
[8]Not available.
[9]Asking price.
[10]Recently, the average size of buildings in Park West has been over 100,000 square feet.

absorption would probably range between six and 10 acres, which could be increased if single-purpose users, such as an operation connected to the universities or medical complex in Oakland or an established firm seeking a new facility, were in the market for space. The panel is not aware of the future space requirements of the Oakland institutions but presumes they represent a potential market.

## ADVANCED-TECHNOLOGY USES

The proximity of the University of Pittsburgh, Carnegie-Mellon University, other colleges and universities, and the university health/medical complex is an attribute of the site that offers unique marketability. These institutions encompass more than 100,000 faculty, students, and employees. The URA has expressed a desire to see the site developed for advanced-technology uses, at least to some degree. The educational and research institutions in Oakland represent an existing resource that can promulgate advanced-technology activities.

It is well known that institutions of higher learning with first-class graduate schools of applied science can be the breeding ground for advanced-technology activity by the private sector. The influence of Harvard/MIT in Boston and of Stanford in Palo Alto is notable, and other influential institutions include the University of Michigan, the University of Georgia, and Rensselaer Polytechnic Institute. Research Triangle Park in North Carolina is an example of cooperation among three universities: North Carolina State, Duke University, and the University of North Carolina.

The explosion of advanced-technology businesses that occurred in these university-related locales is in an embryonic stage in the Oakland area. At least 40 very small enterprises in and near Oakland chose that location because they needed contact with either the University of Pittsburgh, Carnegie-Mellon University, or both. According to the Pittsburgh High Technology Council, the area supports 40,000 advanced-technology jobs, increasing at the rate of 20 percent per year.

In these early years of momentum in advanced technology in Pittsburgh, the community must avail itself of every possible opportunity to encourage it. The J&L site provides such an opportunity:

- **Space needs of advanced-technology enterprises.** Some of the small companies now located in the Oakland area and others that might be attracted need and can afford first-class R&D space.
- **Proximity to Oakland.** Such companies employ graduate students and faculty as researchers, who require a convenient commute between their university activities and their nonuniversity jobs.
- **The establishment of "critical mass."** As in all real estate, a well-developed location establishes its own momentum in attracting similar kinds of activity. The presence of a Technology and Industry Park can influence advanced-technology companies to come to Pittsburgh in preference to other academic communities with a good reputation but without a research park.
- **Access.** The people whom the panel interviewed said unanimously that the J&L site is very convenient—that it is in fact the most convenient of any feasible alternative site for a research park.
- **Space limitations at the universities.** Neither the University of Pittsburgh nor Carnegie-Mellon University has much space available for expanded research activity—either its own or in conjunction with the private sector. Some of the panel's interviewees suggested that, policy permitting, some departments in both schools might benefit substantially if they moved to the J&L site. In the panel's view, such moves could work to the benefit of the university (or universities) and the marketing of the site to advanced-technology companies *if* the university science department(s) has a great deal of contact with private industry, thus attracting companies from the private sector. Particularly worthy of consideration, in the panel's opinion, is the possibility of locating the proposed software engineering institute sponsored by Carnegie-Mellon University in the Technology and Industry Park.

In the cases of Route 128 around Boston and of Palo Alto, California, the initial impetus began with the influx of academics into private enterprise, after which "critical mass" occurred when the technically trained personnel of some companies began

Panel members discuss their findings with Pittsburgh Mayor Richard S. Caliguiri.

spawning splinter companies. A university moving departments to the J&L site might find a nonprofit leasehold of space less expensive than customary methods of financing available to it. Or private industry benefiting from departmental research might be willing to pay for some of the costs of relocation. Or the URA might consider selling land at a write-down to institutions for their own building, which would be justified only if the institutions were a real drawing power for private companies. It could be viewed as a loss leader, resulting in a greater level of development for the whole site.

Competition exists between the University of Pittsburgh and Carnegie-Mellon University, the panel notes, but it seems to be confined to the top administration. At the levels that would be directly involved with the private sector, competitiveness seems to be much diminished.

As part of the marketing plan, the panel suggests that all institutions be given an equal opportunity to participate, responsibility for which should probably be assigned to a third party, preferably an organization that is already substantially involved in promoting advanced-technology growth in the region and that has the respect of both the academic and business communities.

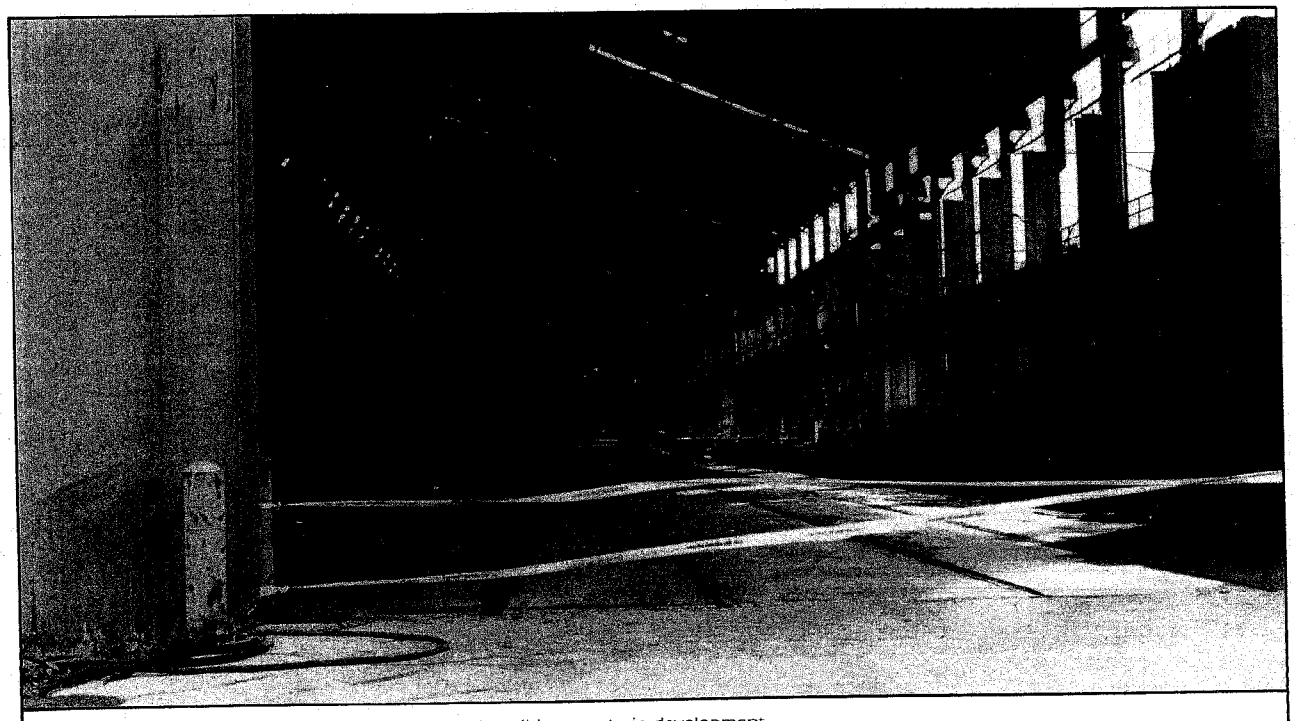
## LIGHT MANUFACTURING USES

While light manufacturing may appear to be underusing the J&L site, many light manufacturing companies desire and will pay the additional costs for a high-quality environment. Manufacturing companies willing to abide by the park's design standards should be welcomed.

All successful R&D is followed by assembly and processing, which usually require relatively sophisticated space, controlled environments, excellent working conditions, and technically trained personnel. The space envisaged in the Pittsburgh Technology and Industry Park is suited to and marketable for such specialized types of light manufacturing. Such manufacturing enterprises would, moreover, provide employment for blue collar and highly educated white collar workers as well as enhance the climate for splinter company startups, thus helping to build the "critical mass" for advanced-technology industrial growth. The panel suggests that sites on the western portion of the J&L property would be particularly suitable for light manufacturing.

## OFFICE USES

Office uses are consistent with the park's concept and can be marketed successfully, although on a smaller scale than R&D and light manufacturing. Once the project has gained some momentum, office space will be needed for suppliers and consultants to the advanced-technology R&D and manufacturing businesses on the site. One office use the panel views as particularly worthy of consideration is the U.S. Bureau of Mines operation, whose present underused building in Oakland might be better used for academic purposes.



The thick floor slabs that will be left after building demolition constrain development.

## SITE PLANNING AND URBAN DESIGN

The panel agrees with the perception of many supporters of the Pittsburgh Technology and Industry Park that a key characteristic of the J&L site is its symbolic significance. Its abandoned steel mills are prominent reminders of the decline of the region's heavy industrial base, while the details of the preliminary reuse plan reflect the region's growing acceptance of economic diversity and modernization. Direct economic return is not the sole measure of highest and best use of this river valley site. Symbolically representing the replacement of the steel economy along the Monongahela River, the Pittsburgh Technology and Industry Park offers a golden opportunity to strengthen community support for economic change. It is very important that planning and design be sensitive to the historic importance of the site and its exceptional market potential and that the public character of the park be emphasized. Pittsburghers' apparent enthusiasm for this project must be reflected in the park's character—a major entrance, public streets, access to the river, openness. Excellent design will not only enhance the project's marketability but will also help forge emotional attachments to and political support for Pittsburgh's (desired) transition to a more technology-oriented economy.

## ACCESS

**Access and Security.** To take maximum advantage of the site's symbolism, the redeveloped J&L site must be perceived as a part of the physical fabric of the city. The panel therefore recommends that a public entrance to the park be marked by an appropriate focal point and that the interior street be designed for easy access from Second Avenue. Everything about the Second Avenue frontage should reinforce this new place as a prime location for business.

The street on the site should be public, designed and built to city specifications, and located as shown in Figure 5. It should be a high-quality industrial street, no less than 36 feet wide. Sidewalks, curbs, and all utilities should be located outside the pavement but within the street right-of-way.

In the panel's experience, the major roads and sidewalks in an industrial/office park should be primarily public and maintained by the local government. This arrangement ensures easy access for police and fire protection and for snow plows—services most buyers of urban land assume are part of the deal. Public ownership also provides unrestricted access for the general public, employees, and visitors.

The panel does not believe security on this property will be a major problem. In fact, openness is an advantage in marketing. Individual property owners should be

**Figure 6**

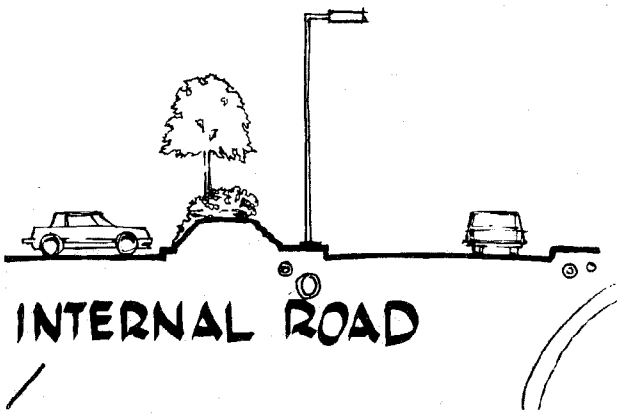
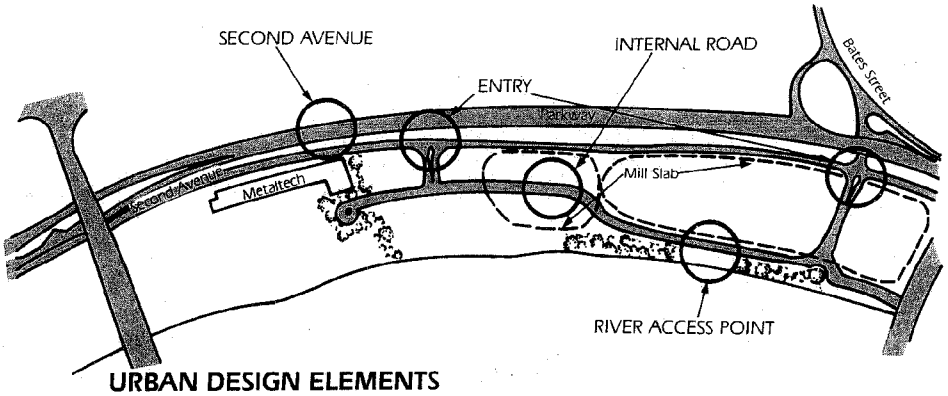



**Figure 5**




**URBAN DESIGN ELEMENTS**

(Details of Second Avenue redesign, entry design, internal road, and river access point are shown in separate drawings.)

Figure 7

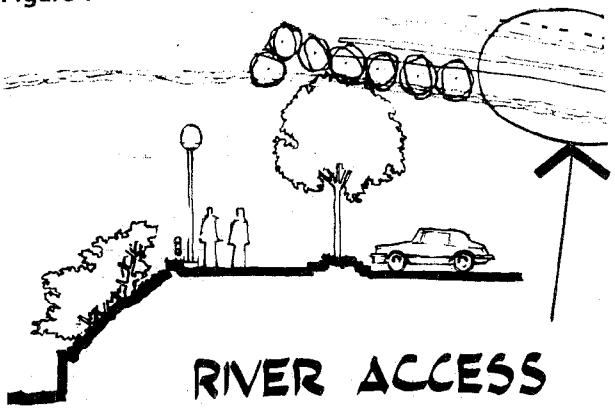
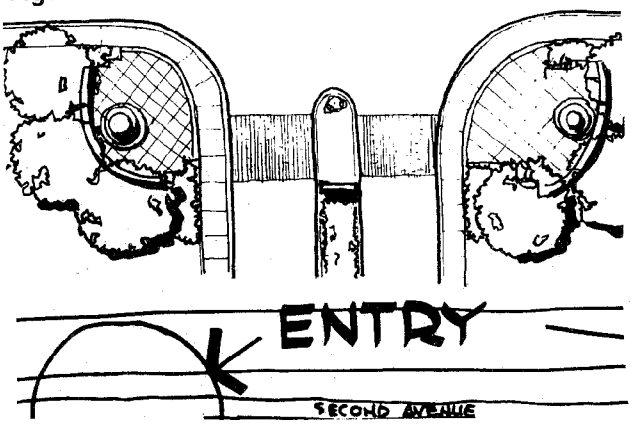



Figure 8




responsible for security of their lots' boundaries and for internal security on their premises.

**Riverfront Access.** The redevelopment of this site offers a unique opportunity to reintroduce the public to the Monongahela River at this location, signaling in a positive way that a new era of public access to Pittsburgh's riverfront has begun. The panel does not recommend developing active recreational facilities like fishing and boating, but it does support the expressed desire of adjacent communities to penetrate the "walls" of the J&L plant through to the water. This community benefit, in the panel's view, clearly outweighs any arguments for limiting public access to the riverfront.

To facilitate public access, a place to park cars should be provided. A planted berm, pathways, lighting, and riverfront landscaping should be provided for public enjoyment. A schematic drawing of a desirable riverfront treatment is shown in Figure 7.

## OWNERSHIP OF OPEN SPACE

Ownership and maintenance of common spaces in the park by the public sector has been suggested as one way of preserving public access. The alternative of tenants' owning open space with public easements has also been suggested. The panel believes that if the park is developed with a major public street and with a public viewing point at the river's edge, concerns of access could be satisfied without involving the public sector in traditionally private areas, such as the lots around buildings. Riverfront properties would be owned and maintained by lot owners, but they would contain public easements for access to the water's edge where needed. The street and major viewing point would be maintained by the city.

The open space should be extensively landscaped, and heavily landscaped berms should be built to screen the park from unsightly surroundings, the noise of the adjacent roads and bridges, and the heavy traffic on Second Avenue. Landscaping and maintenance should be the responsibility of an owners' association. A contract with one firm should be executed to ensure consistent and high-quality landscape maintenance.

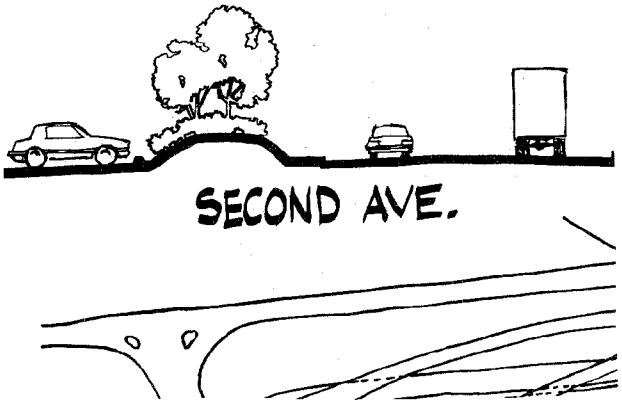
## SECOND AVENUE FRONTAGE

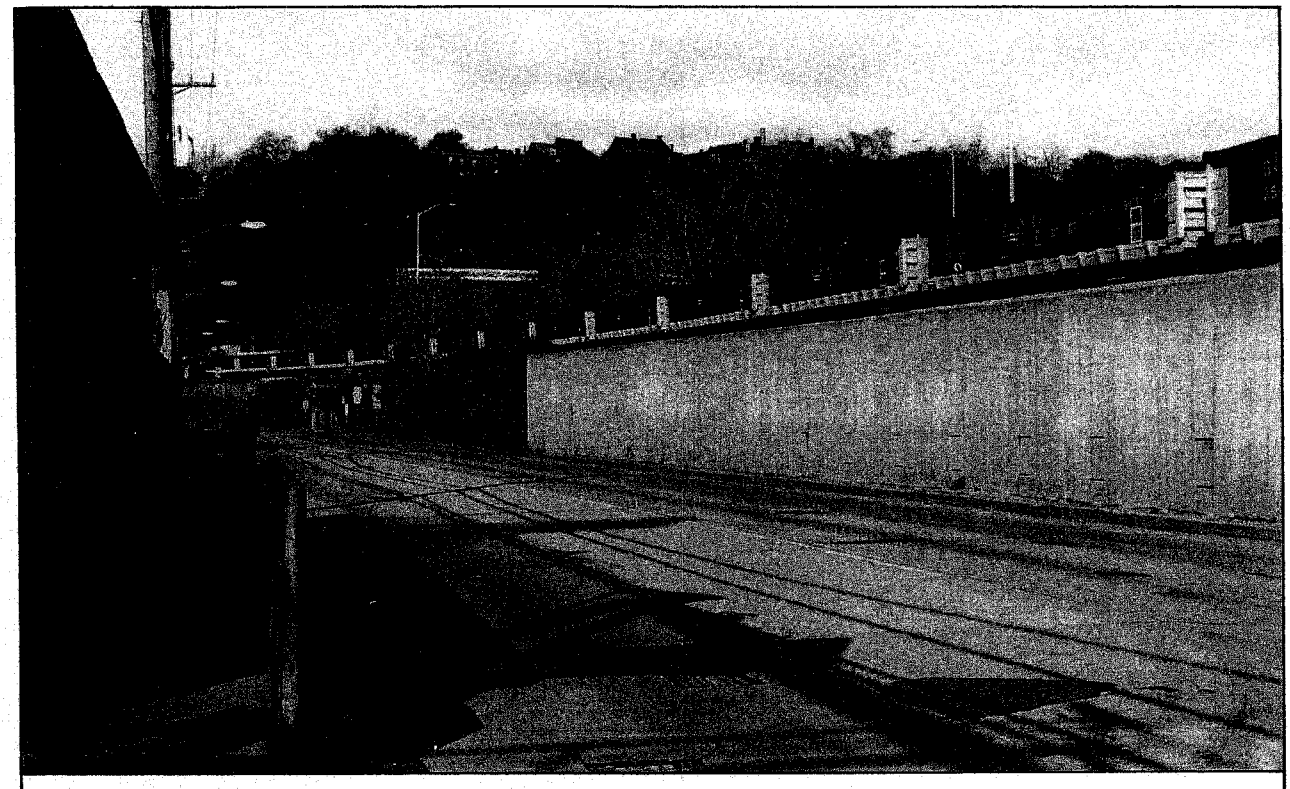
Second Avenue is the only access to the proposed park. It is currently a dark and narrow, tunnel-like road that detracts greatly from the potential appeal of the site. The panel believes a complete change in this visually unattractive environment is crucial to the success of an advanced-technology park. Because of the magnitude of the task of totally rebuilding the corridor, its transformation may need to proceed in stages.

The entry points on Second Avenue—a signal of the quality and uniqueness of the park—are critical. They should be extensively and dramatically landscaped. Care should be taken in the design and placement of an identification sign. Such elements as fountains and sculptures should be considered, as illustrated in Figure 8.

Improvement of the 4,000-foot Second Avenue frontage is critical to the park's marketing strategy. This frontage needs to be totally reconstructed. The wall on the

Figure 9





The tunnel-like atmosphere of Second Avenue should be completely transformed.

south (the site) side of the road should be dismantled and replaced with earth berms and landscaping far above average city standards. Intensive landscaping will mitigate the very undesirable visual aspects of Second Avenue. The URA's proposed budget of $189,000 for landscaping a buffer zone along Second Avenue should be substantially increased.

All the building facades facing Second Avenue should be high quality. Users should be encouraged to orient their entrances to the Second Avenue elevation (as well as toward the interior of the park on the other side). Having no "back yards," the buildings that front on both Second Avenue and the interior street will need carefully designed loading, storage, and trash facilities. One solution is to use interior courtyards for such functions.

The stone wall on the north side of Second Avenue cannot be removed because it is a retaining wall for the B&O railroad tracks. The city should undertake its repair, cleaning, and landscaping, however.

Second Avenue itself should be widened. Entry and exit lanes should be provided at the park entries, coordinated with a median strip at the entries (see Figure 9).

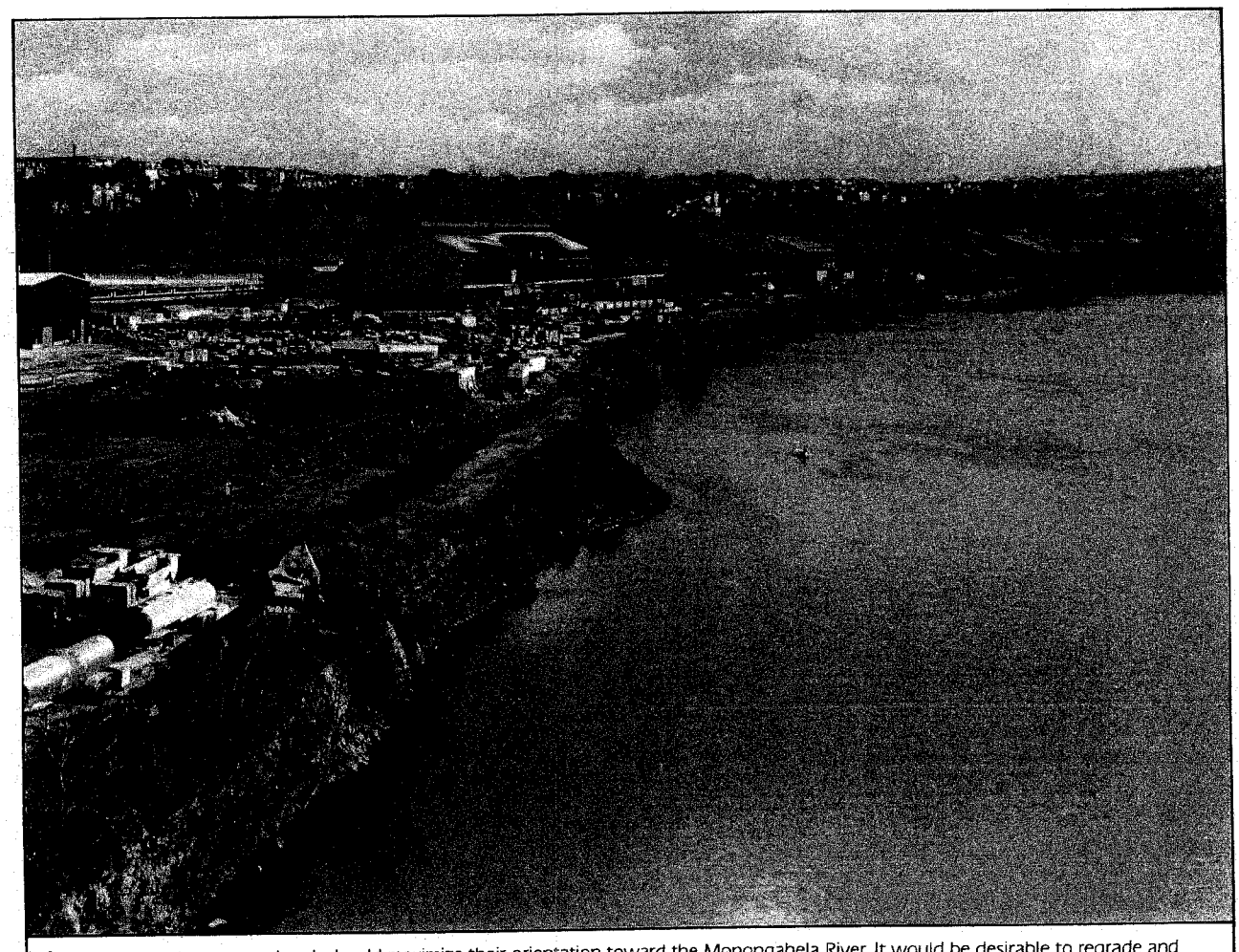
## RIVERFRONT TREATMENT

The views from the site up, down, and across the Monongahela River are varied and represent everything the river once was and can be again. On both sides of the river, one can see active steel mills. Directly across the river is South Side park, a landscaped park recently developed by the city for passive recreation. Bridges cross the river in both directions, and splendid views of the magnificent downtown skyline (one and one-half to two miles distant) exist to the west. The Monongahela is a visual asset in its own right that will become increasingly valuable as the water quality is improved.

Every effort should be made to take advantage of the site's waterfront assets. All buildings in the park should maximize their orientation to the river. No windowless walls or service docks should be permitted to face the river. In the building and landscaping plans, the objective of visual access to the water from multiple vantage points should be vigorously pursued. Thought should be given to the possibility of regrading and landscaping the steep bluff down to the water's edge. The high cliffs formed by many years of slag landfill probably preclude direct physical access to the water for fishing or boating, however.

## PARCEL SIZES AND LAND USES

Lot sizes should not be predetermined. The project should be flexible enough to accommodate a subdivision of land for either one user or for a cluster of users, with each user or developer determining its own lot size. A procedure followed in planned unit developments



All buildings in the proposed park should maximize their orientation toward the Monongahela River. It would be desirable to regrade and landscape the steep bluff that drops to the water.

should be used, providing for the creation of individual lots subject to administrative review to ensure compatibility with the overall plan.

The panel suggests that general site use targets would be helpful in directing development, as shown in Figure 10. It is conceivable that at least one firm that is not an advanced-technology business may nonetheless wish to locate in the park. If such a firm offers significant employment, it would be politically difficult to deny it access. Such firms could be located on the western edge of the site—on "the mayor's outlet pressure valve"—adjacent to the Metaltech galvanizing plant on the northwest corner. The best policy, however, would be to find an alternative site for such companies, because a compromise on use will also compromise the opportunity to create a totally special park on this land. Office users could be clustered in lots along the river in the west/central portion of the site. The central portion of the site along Second Avenue could be targeted for general R&D and light manufacturing firms, the eastern portion for large-scale scientific/technological institutions or companies.

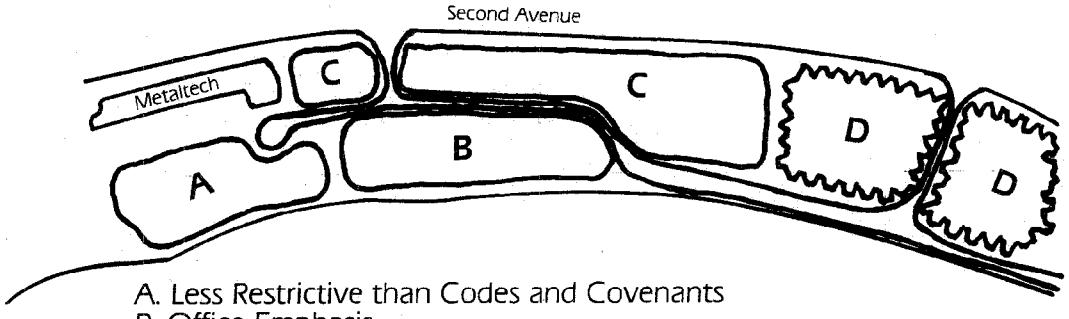
## PUBLIC TRANSIT AND TRANSPORTATION IMPROVEMENTS

Pittsburgh has a high rate of public transit use. Sixty percent of the employees commuting to the central business district use buses, and as many as 40 percent of the employees at the proposed park could reasonably be expected to arrive by public transit were existing service upgraded. URA believes, however, that 40 percent may be an overly optimistic estimate.

The use of public transit should be encouraged, because the greater the use of public transit, the more land that is available for work space instead of parking, thus generating increased employment and tax revenues. Local public transportation officials told the panel it would not be difficult to improve the scheduling of buses to the J&L site and to route them through the park's interior street system. The existing bus stops along Second Avenue are presently inadequate and unsafe. Adequate levels of service will require either improvements to Second

Figure 10

## SUGGESTED SITE USE TARGETS



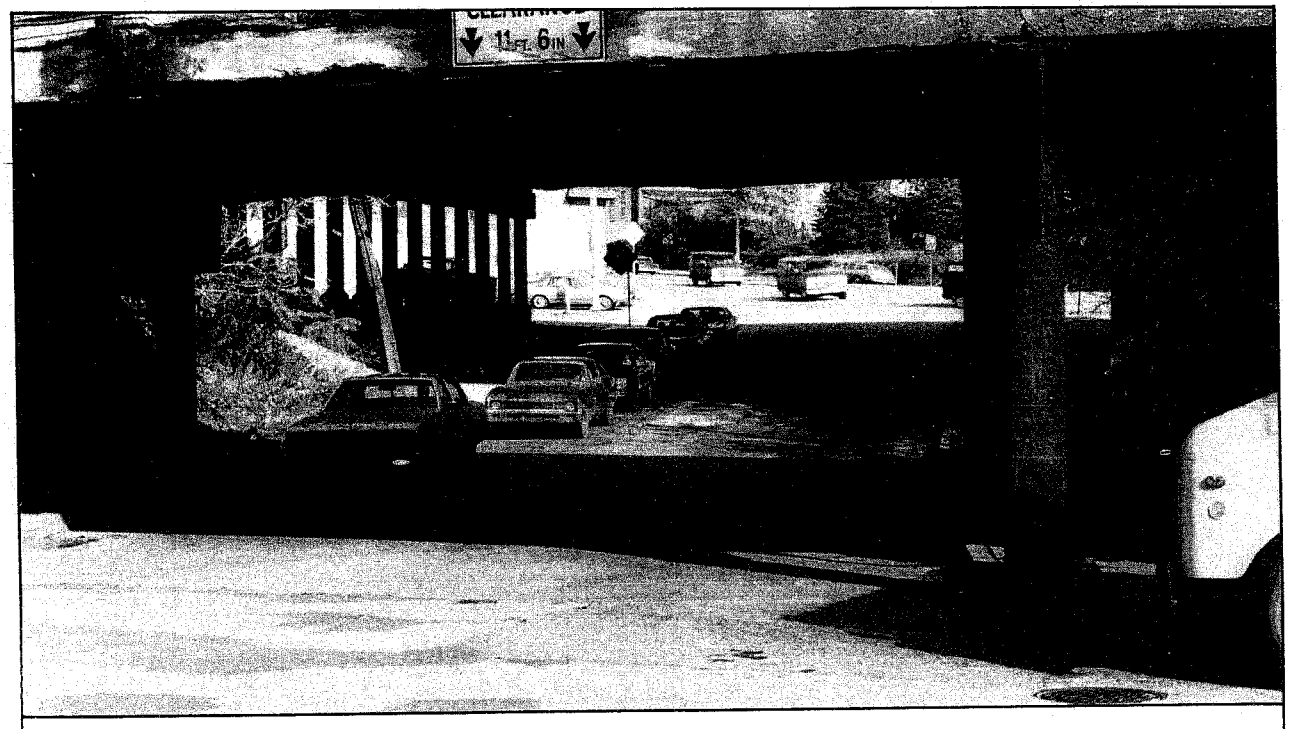

A. Less Restrictive than Codes and Covenants
B. Office Emphasis
C. General Uses
D. University/Medical/Scientific Target Linkage Area

Avenue bus stops or the provision of bus stops on the park's interior street.

The B&O railroad tracks on the north side of Second Avenue could possibly be removed in the distant future. But the costs would be prohibitively high, making it unrealistic to consider at the present time. The B&O currently carries 1,100 commuters a day into downtown. The feasibility of an intermediate commuter rail stop at Bates Street should be considered.

In the panel's opinion, direct access to the J&L site—particularly from interstate highways—is not good. In contrast, the people whom the panel interviewed consider its access relatively good, perhaps because Pittsburgh's hilly topography has dictated less strict standards of access than are found in most of the United States. The panel suggests that the city and the developers study the feasibility of a number of improvements to access:

- Improvement of access from Bates Street to Second Avenue.
- Construction of a ramp off I-376 to Second Avenue just west of the site to provide eastbound traffic from the airport and the downtown with direct access,




Access from Bates Street should be improved.

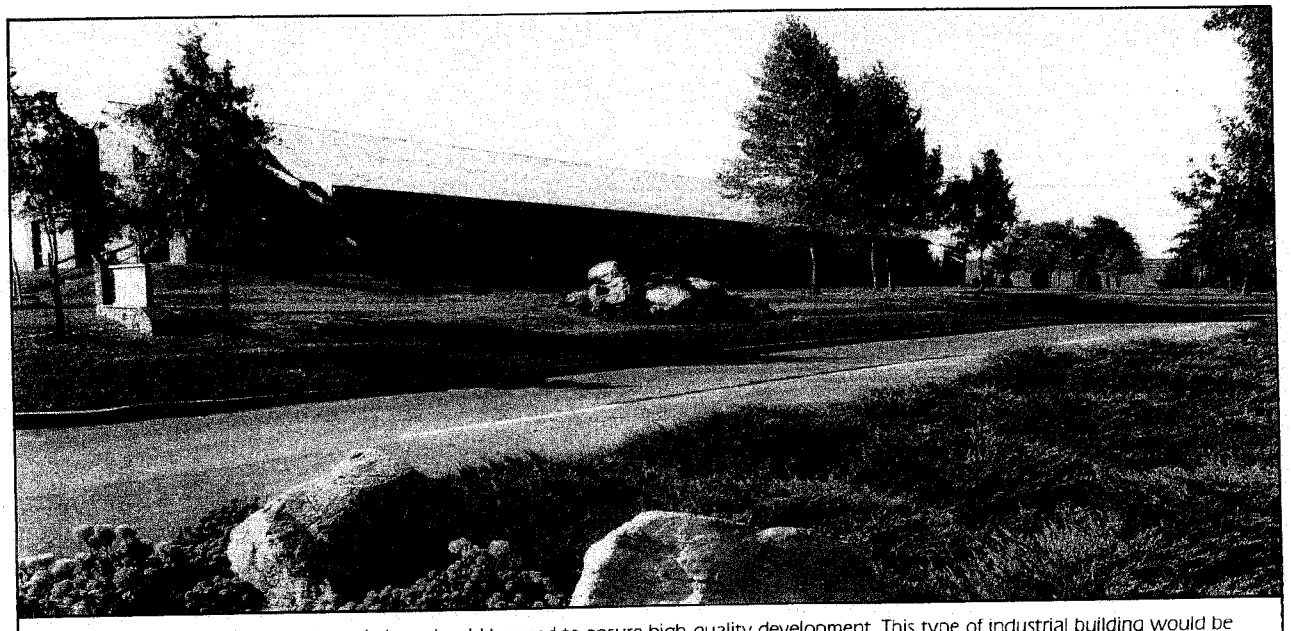
and construction of a new ramp to I-376 at Bates Street and Second Avenue to provide westbound traffic with convenient access to the interstate. (Note: While the idea of constructing on- and off-ramps to serve a 51-acre site may seem ludicrous, it should always be remembered that the site may become 250 acres at some time.)

- Creation of a direct link between Oakland and the site through Panther Hollow. The city and the Oakland community should cooperate in a study of the possibility of a sensitively designed bus corridor or roadway through Panther Hollow.

## PROTECTIVE COVENANTS AND BUILDING RESTRICTIONS

The urban design character of the Pittsburgh Technology and Industry Park must be carefully planned and, ultimately, controlled by the park owners' association and RIDC. In recognition of the importance of design standards, the URA has drafted a document covering protective covenants and building restrictions for the J&L site. The panel commends this effort and makes the following suggestions with regard to it:

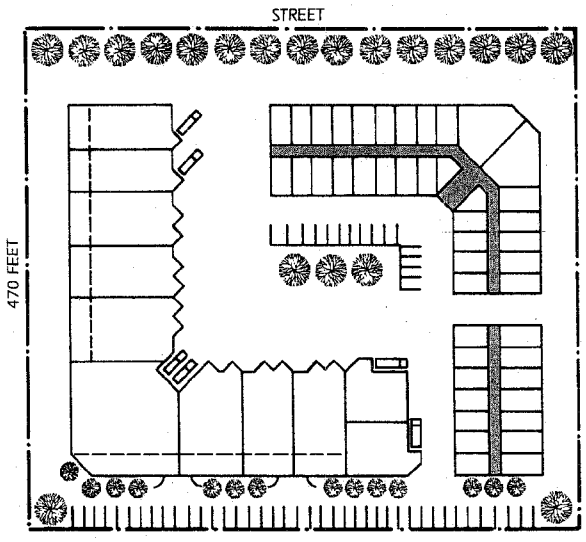
- **Permitted Uses.** Distribution is listed among the permitted uses, but the panel thinks only auxiliary distribution activities should be allowed. Primary distribution activities would encourage objectionable levels of truck traffic inconsistent with the advanced-technology image that the park should project.
- **Setbacks.** Some variation from the proposed 50-foot setback should be considered to prevent monotony and to encourage a higher degree of architectural excellence. A minimum 30-foot setback should be considered, on the condition that the entire area between the street right-of-way and the building line be landscaped and not contain any roads or parking areas.
- **Building Height Limitations.** The URA draft covenant limits buildings to two stories but says that additional height may be permitted for buildings with special requirements, provided that setbacks are increased. The panel believes that permission to exceed two stories should be reserved and not tied to requirements for setbacks alone. The condition of the fill and the likely fact that the slabs of the former steel plant will be left in place seriously constrain building height and density on the site. The costs of footings for any building over two stories would be very high and could be justified only by constructing buildings with substantially more than two stories and with structured parking. While it may be appropriate and desirable to build at high densities to accommodate an extraordinary proposed use, permission to do so should be based on the compatibility of the proposed high-density use with the concept of the advanced-technology park.
- **Sign Standards.** The draft document should add provisions for signs identifying the park. URA should retain the right to ensure consistently designed signs throughout the park.
- **Plan Approval.** The draft covenants require RIDC's approval of a user's site and building plans. The panel suggests that a time limit be imposed on design review and that consideration be given to the establishment of an architectural board of review to ensure architectural integrity throughout the park.



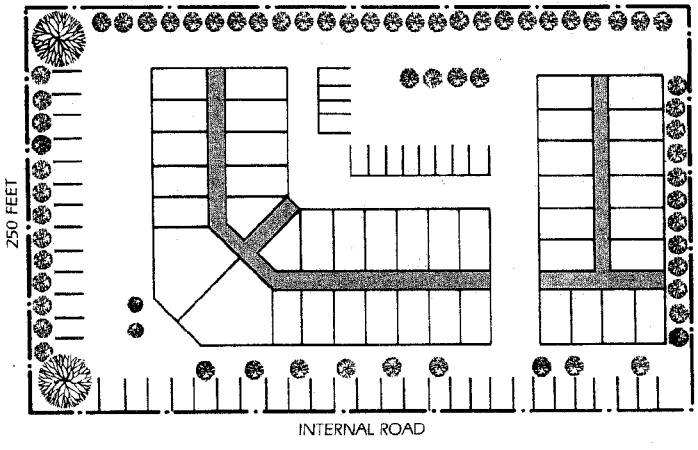
Strong protective covenants and restrictions should be used to ensure high-quality development. This type of industrial building would be suitable for the Pittsburgh Technology and Industry Park.

Figure 11

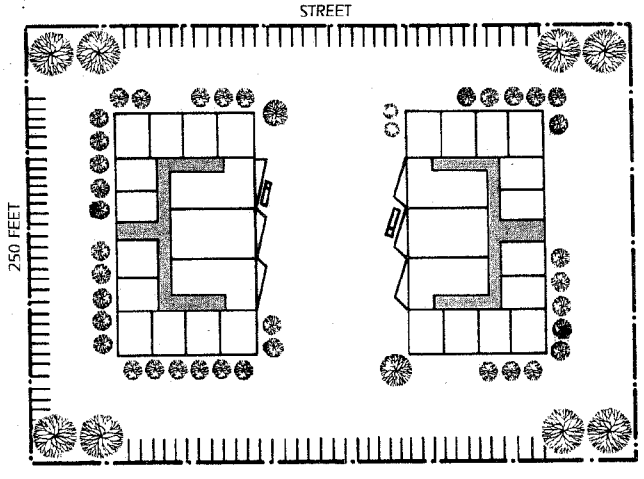
**PROTOTYPE BUILDING PLANS**



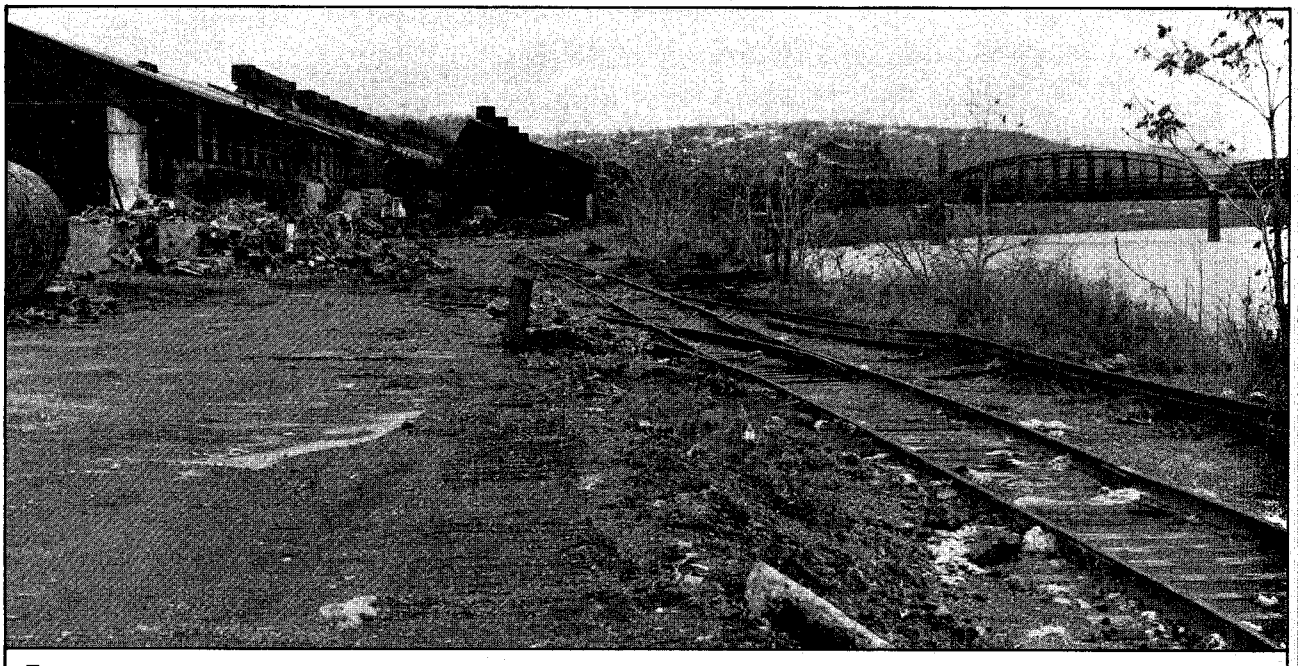

Prototype A




Prototype B




Prototype C



The site should be completely developed and landscaped before marketing so that its full value can be realized.

- **Fences and Walls.** The panel agrees with URA's intention to discourage fences and walls. It is important to create an open, welcoming atmosphere inviting to the general public, to employees, and to visitors. Visible security precautions imply the possibility of crime in the area and should be minimized. Special security requirements should be subject to strict design review.

The panel believes that the covenants and restrictions should also address roofscapes. The site is highly visible from above—from the parkway, from Bates Street, from numerous hillside locations in Oakland—and should be designed with these vantage points in mind. Boring, flat roofs should be avoided. Unsightly rooftop mechanical equipment should be screened, and roofscape variations such as roof silhouettes, clerestories, and skylights should be considered.

The panel also recommends that URA consider adding outdoor lighting standards to its covenants and restrictions.

## BUILDING TYPES

The panel envisages simple, highly flexible buildings for the multitenant market, with an emphasis on flexibility and on exterior quality. Figure 11 shows three prototypical arrangements of space for one- and two-story buildings. Among their features are service/loading docks located in truck corridors, various sizes and configurations of space, variously shaped double-loaded corridors, sometimes a single major building entrance and sometimes direct access to individual spaces, single and double rows of parking depending on its location, and extensive landscaping. Such flexible building designs have proved successful in markets catering to advanced-technology, small-scale users.

## PHASING

A piecemeal approach to this project will not work, because improvement of a distressed urban site in stages greatly impedes marketability. The panel strongly recommends that site improvements not be phased. When the site comes to market, demolition should be complete and all improvements in place so that it will be competitive. The front-end investment in complete site improvements, to be largely borne by the public sector, will be more than compensated by accelerated increases in land value.

The development of this site will take more time than the public or city leadership probably anticipates. The panel strongly urges patience. Opportunism will lessen the long-term benefits of this site. Having the whole site ready before proceeding with land sales and development is highly important in terms of the quality of development that will be attracted to it. It would be extremely detrimental to the project's sales and marketing to have mills in various stages of demolition, poor road access, parts of the site still under construction, and inadequate landscaping. The panel recommends that the site improvement schedule be accelerated, although it recognizes the limitations imposed by the public treasury and by URA's three-year agreement with the Park Corporation calling for the completion of demolition by October 1986.

## MARKETING GOALS AND OBJECTIVES

The first necessary step is formulation of a strategic development plan, featuring specific goals and identifying the tactics needed to achieve them. The strategic plan should reflect URA's vision of the proposed development as a major and innovative component of the economic transformation of the greater Pittsburgh metropolitan area.

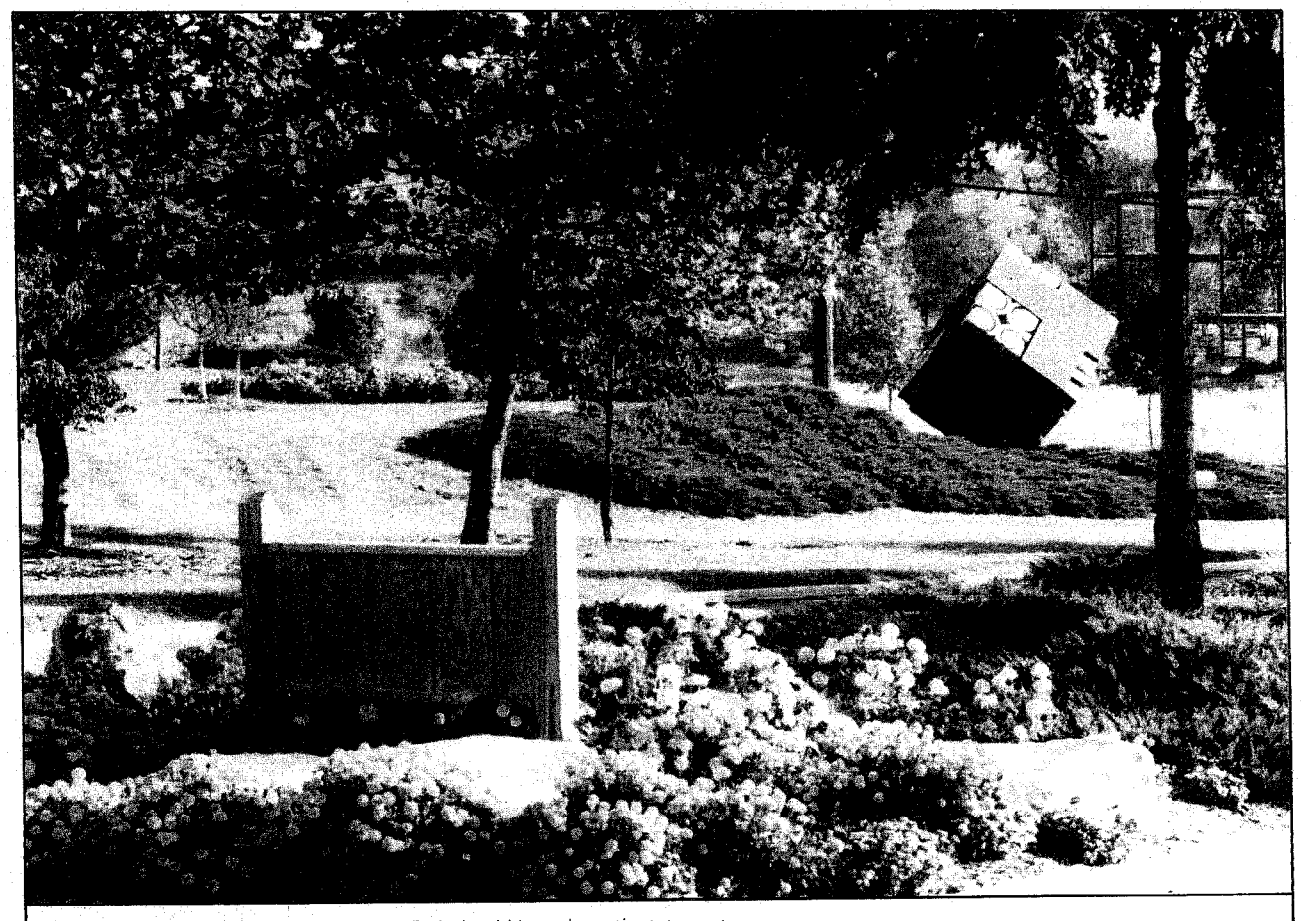
The panel recommends that the creation of jobs be a centerpiece of the marketing strategy. A key objective of the plan should be to create an employment environment that will attract advanced-technology and scientific firms. Warehouse/distribution firms should be discouraged: they have a low employee/land ratio, they derive no particular benefit from the site's proximity to Oakland's institutional resources, and they will create no momentum for future industrial development upriver.

Flexibility should be another hallmark of the plan. The highest and best use for the site encompasses many possibilities. The panel believes that the real estate market in Pittsburgh is ready to expand rapidly. With a flexible development plan that allows for a range of products, from small incubator space to a 10-story build-to-suit or design-build structure, and that allows for growth, URA/RIDC can capture the users on the leading edge of Pittsburgh's economic future.

The symbolic and concrete importance of the proposed Technology and Industry Park requires that both the public and private sectors be involved in its realization. Among the entities that have a vital stake in the marketing of this property are URA, RIDC, the Allegheny Conference on Community Development, the academic community, the health institutions, the Western Pennsylvania Advanced Technology Center, Penn's Southwest Association, the Pittsburgh High Technology Council, and the multitude of for-profit corporations located in the region.

## DESIGN GUIDELINES

The panel urges that no compromise on quality be permitted. High standards appropriate to a modern sci-



The entry of the Technology and Industry Park should be a dramatic statement.

ence, research, and business park are needed to attract and retain the desired tenants and owners. The developer of this property must make the connection between industry and academe work well—which will require a project that is designed and marketed with flair. The design and use guidelines adopted for the project should be stricter than any now extant in the Pittsburgh region.

The first building will set the tone of the entire development—and probably for the development that is likely to occur upriver to the east. RIDC or another qualified developer should design it as a high-quality building, cutting no corners. The entries should be designed to reflect the desired high-quality character of the park, and covenants and restrictions should be established to ensure that all buildings and their surroundings are in keeping with this character.

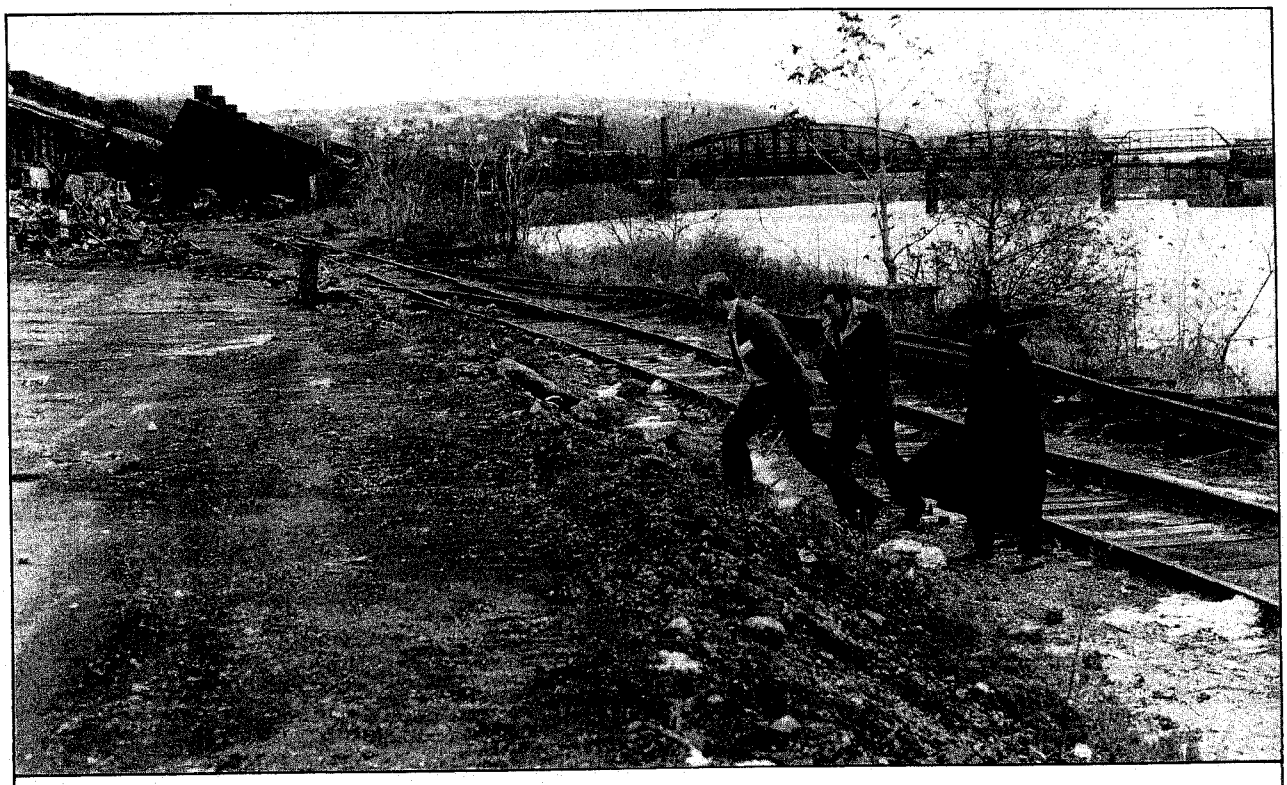
## FLEXIBLE TARGETING

The panel believes that a narrow targeting policy is unnecessary and could needlessly limit URA's options. URA has proposed a screening process that would serve to exclude firms that are not advanced-technology firms. In the panel's view, high design standards and rents will ensure interest on the part of appropriate users, encouraging the development of a top-quality park. By cultivating the proper, high-quality environment, URA will accomplish its objectives of attracting advanced-technology firms. A permissive marketing strategy will pay dividends for the site as well as for any additional J&L land that might become available. If firms not oriented to science and technology decide to move in, it would be no serious problem. They would still have to abide by the strict design and use guidelines, and when they move out they could be replaced by an advanced-technology firm attracted by the park's established reputation.

## SPECULATIVE BUILDING

The panel strongly recommends that speculative buildings be aggressively promoted in the Pittsburgh Technology and Industry Park. Moreover, while it recognizes the good job that RIDC has done with speculative buildings in its several industrial parks, the panel considers it imperative that other developers be allowed to participate competitively in the speculative market. Thus, discounted land prices and special financing vehicles should not be made available to RIDC for developing on this site. The market is strong enough to permit conventional development (except that the public sector will be subsidizing land development). Conventional, competitive development will bring about a higher quality development and competitive marketing—what this site needs.

Speculative buildings will provide multiple benefits to the development. A developer does not need commitments from a user to initiate the project, so it can be



Panel members inspect the site.

started quickly. Speculative building creates activity. Absorption is generally proportional to the amount of speculative space available; to maintain desirable absorption, a supply of approximately 50,000 square feet of speculative space should be available at all times. Finally, speculative buildings allow companies to devote their capital to purposes other than real estate.

Speculative buildings will provide space for small tenants and for spin-off firms or firms otherwise related to the university/health complex in Oakland and to the larger operations that will eventually locate in the park. The development plan should distinguish between two distinctly different incubator markets—the small, 500-square-foot user that may require rent subsidies and the larger, 1,200+-square-foot user that can pay market rents—and provide space for both. Small users might also require common facilities, such as conference rooms or office services, and such space should be available.

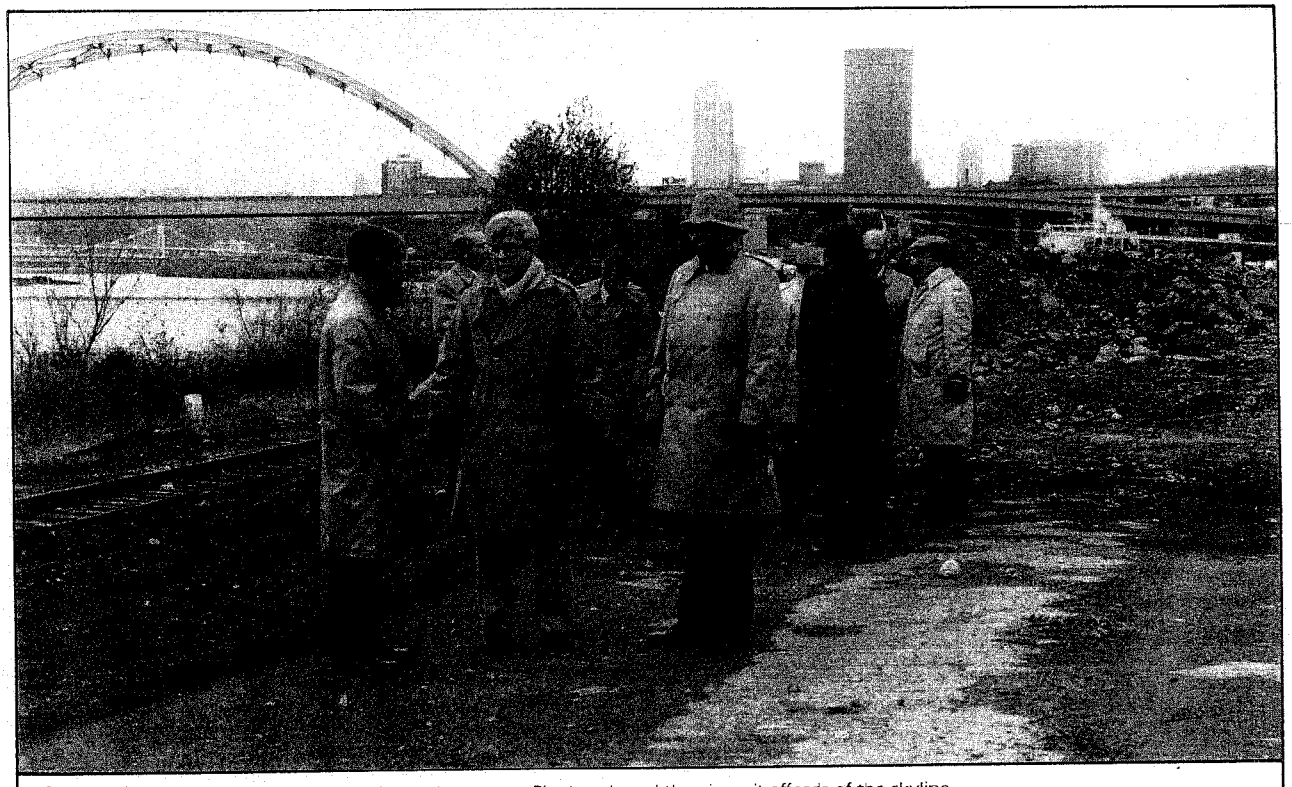
## LINKAGES

The development strategy must continually bear in mind the natural linkages that exist between the concept of the park as high-quality, technology-dominated space and the developing markets for space for users connected with or dependent on the university/medical complex in Oakland. Primary target markets for the park should be firms and institutions involved in robotics, in biomedical R&D, in computer research and applications, and in materials R&D. The five-minute commuting time between Oakland and the J&L site makes possible the frequent interchange of personnel and resources between the site and the universities and hospitals. The panel recommends that specific efforts be made to facilitate the linkages between Oakland and the Technology and Industry Park, including the establishment of a convenient shuttle bus service between them, which could be initiated by the public sector, by the institutions, by tenants, or by a combination.

The panel recommends that steps be taken to establish a program that would help smaller startup firms with a natural link to the scientific community in Oakland to locate in the park. This effort might include the establishment of support services (accounting, legal services, marketing, networking) in the park for such firms and marketing efforts directed toward such firms. Philadelphia's Science Center has such an element that would be well worth studying.

## AGGRESSIVE MARKETING

In the panel's opinion, the realization of the inherent absorption potential of the J&L property requires vigorous sales and leasing. The panel's observations are that RIDC has not been overly aggressive in marketing its properties and that Pittsburgh brokers are eager to assist



One of the site's amenities is its proximity to downtown Pittsburgh and the views it affords of the skyline.

in the marketing of the proposed Technology and Industry Park. The panel recommends that RIDC mount a large-scale marketing effort for this property and that brokers be encouraged, through market-rate commissions, to bring potential tenants to the site. Various institutional, nonprofit, and corporate organizations should also be involved in the marketing strategy because they are stakeholders in the modernization and diversification of the region's economy.

It would clearly be a mistake to pursue only organizations based in Pittsburgh; the panel believes marketing should be international in scope. Foreign companies are well represented in the Pittsburgh area. According to a report in *The Washington Post* (December 17, 1984), about 190 foreign firms—particularly German and Swiss—have located in the region over the last decade, attracted by its rolling topography and midwestern work ethic. The panel believes that designation of the park as a foreign trade zone would provide it with a helpful advantage in marketing.

## SUPPORT FACILITIES

To attract tenants, the Pittsburgh Technology and Industry Park will have to include such support facilities as restaurants, convenience retail shops, and banks. Including conference facilities and limited recreational facilities (a health club, a jogging trail) would enhance its edge in the market.

## LAND LEASES VERSUS LAND SALES

The panel strongly recommends that URA not enter into any ground leases. Land leases are almost totally unacceptable to most developers because they offer no advantage to them. They normally cannot be financed unless subordinated to a building loan (and a subordinated lease exposes the lessor to severe risks if the lessee defaults on the building loan). Land leases are generally found only in unique situations, such as rapidly growing central business districts with a limited supply of land or high-priced waterfront residential areas. In those cases, the leases generally have long terms and flat rents—not an advantage to the lessor.

URA should instead sell land for development. The sale of land, rather than ground leases, is what the overwhelming majority of players in the market expect: sales can be readily financed and insured. The seller gains liquidity that can be used for any purpose. And in the case of a nontaxable seller like URA or RIDC, the disadvantage of adverse tax consequences from land sales is avoided.

URA should apply a number of important conditions to purchase and sales agreements for major projects:

- Only bona fide potential users should be granted options to purchase. Requests for options should be reviewed case by case and granted on the basis of how closely the applicant matches the profile of the ideal user for the remaining land or how much its presence will contribute to the overall success of the development.
- Because options should be granted only to potential buyers that represent a benefit to the overall project, the amount of the option consideration should be nominal. It should be forfeited if the optionee does not exercise the option and applicable to the purchase if he does.
- All land should be sold "as is," with no warranties or guarantees by the seller.
- All land should be sold subject to use and design restrictions and covenants.
- URA should consider granting favorable purchase terms to very desirable purchasers. It should also consider granting a very desirable purchaser an option to expand or acquire adjacent land if it is necessary to make a deal.
- URA should reserve the right to repurchase a site if building improvements are not made within a reasonable time period. Buyback clauses will deter most speculative land purchases and accelerate the development of the park. The repurchase right should apply to purchases by institutions and by corporate or speculative developers. If Carnegie-Mellon University or the University of Pittsburgh, for example, wants to locate a facility on the site, it should be given a reasonable amount of time (say six to eight months) to arrange financing, and, if it fails to do so, URA should put the land back on the market. The important concern is to keep development moving.
- Land sales to developers of speculative buildings should be at the same price as that available to RIDC. A competitive building strategy that encourages the best developers in Pittsburgh to construct innovative and market-sensitive buildings for lease to tenants is probably the best way to create immediate market acceptance and momentum for this project. URA should insist upon such a strategy, and the project developer should implement it.
- The project developer should have a complete presale package to give to all serious prospects. It should include all necessary technical data, such as soils reports, and proposed documents, such as deed restrictions, form of contract, and preliminary title reports.

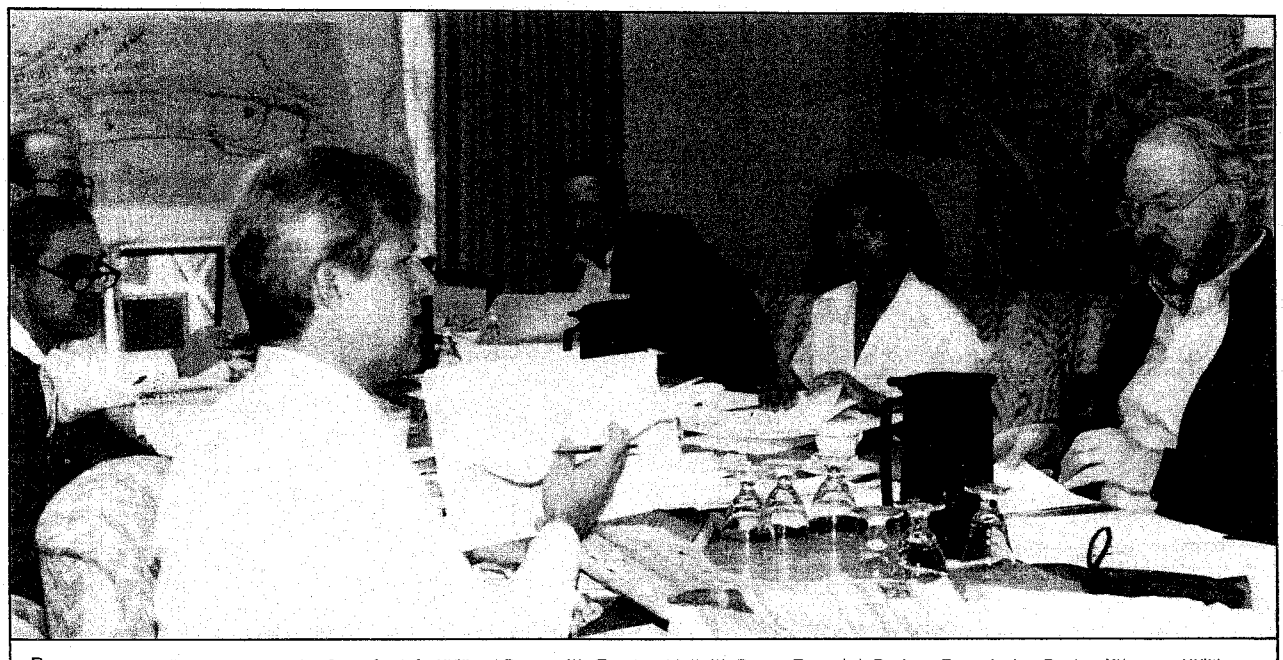
## THE DEVELOPER

RIDC is the logical choice for developer of the property. It has developed quality industrial/business parks that have led the local market in attracting blue-ribbon users and tenants, among them many technologically oriented companies typical of those the Pittsburgh Technology and Industry Park should seek to attract. Moreover, RIDC was the catalyst that brought the J&L property to the attention of the URA. It has demonstrated a good faith commitment to this project by the investment of some funds in planning and feasibility studies and by its agreement to contribute working capital for site development.

The panel finds that RIDC's way of conducting its business poses some disadvantages for the Technology and Industry Park, however. RIDC, as a nonprofit private development agency, has effectively used low-cost government funds, its tax-exempt status, and other available tools provided by various levels of government to develop and make available industrial land and buildings at prices and rents below market. This subsidized development was useful and perhaps necessary in a depressed economy to stimulate job-producing companies to locate and expand in the Pittsburgh region. In the panel's view, the potential market for the Technology and Industry Park is strong enough to sustain competitive land prices and rents for most uses. RIDC should not use its nonprofit status and political/community support to generally subsidize users' costs here, because to do so would unnecessarily depress land prices and deprive the development of potential economic benefits. It would also stifle the competition among developers that the panel considers key to creating momentum for the development. URA should make certain that the project is an "open" development—open to the competitive development community and open to owner/users who want to build their own buildings.

The panel recommends that URA finalize the proposed development agreement with RIDC but that the following suggestions be considered for incorporation into the agreement:

- **User Building Program.** In addition to specifically encouraging the competitive development of speculative buildings for lease, the agreement should require RIDC to effectively and continually solicit sales of portions of the site to users who want to build their own buildings for their use.
- **Land Pricing.** URA and RIDC should set a base minimum land price effective at the full completion of the site improvements. Expressed in dollars per square foot, this price should be adjusted every six months to reflect increases in Pittsburgh's consumer price index. If market conditions change drastically, prices could be raised or lowered with the joint approval of URA and RIDC. The price should be published for the business and brokerage community, and sales prices to all buyers should be the same as prices to RIDC.
- **Performance and Sunset Clauses.** The term of the draft development agreement is 10 years. No devel-



Panel members (counterclockwise from far left: Willard Rouse, III, Gordon Hall, III, Roger Zanarini, Rodger Fagerholm, Roslyn Watson, William Gould) in report writing session.

oper should have a 10-year monopoly on this valuable piece of property. The 10-year development agreement should have, in effect, a drawnout divorce clause. If, upon completion of site improvements, any one-year period elapses without the closing of a sale, either party should be allowed to elect to cancel the agreement upon reimbursement to the other for reasonable expenses incurred (but unrecovered) in fulfilling its duties under the contract. This repayment could be stretched out over a period of time.

- **Incentives.** The development agreement should provide incentives to increase land sales prices to parallel the appreciation of land values on the site, which the panel strongly expects will be rapid, given the structural economic changes happening in Pittsburgh. Land values have been static in the past few years only because of depressed local and national economic conditions. The panel recommends that URA pay a fee to RIDC based on a percentage of the proceeds of sale in excess of current (at time of sale) land price. RIDC could use this incentive bonus to compensate its project development manager for directing an aggressive marketing and sales program.
- **Project Development Manager.** The panel strongly recommends that URA require RIDC to provide a full-time project development manager to oversee all aspects of the project. Besides directing a strong and aggressive marketing program directed toward major users, the university/medical/scientific community, and the brokerage community, the development manager should be charged with coordinating and focusing the efforts of business development and economic development organizations active in Pittsburgh as far as they are concerned with attracting and supporting the kinds of advanced-technology activity logically associated with this project. One element of this effort should be the establishment of an advisory board to help create on-site "programmatic" support for startup advanced-technology enterprises, such as, for example, forging university/park working partnerships or setting up a center for advanced-technology support under the auspices of the Ben Franklin Partnership's Advanced Technology Center (see "Linkages" in the previous section).

## THE PUBLIC ROLE

The public sector's objective for the J&L site should be to expedite its transformation into a buildable site and to promote the earliest possible construction of buildings where people will be employed. The best way for URA to realize this objective is to select a developer and equip that developer with a mutually agreeable "game plan."

Time is of the essence for this project. The panel suggests URA conclude the development agreement with RIDC as soon as possible. The Pittsburgh economy is undergoing momentous changes, making due haste appropriate in moving the Technology and Industry Park ahead so that the site can capture a full share of potential jobs in the region. It is reasonable to aim for April 15, 1985, as the date for execution of the development agreement.

The city will remain an active participant throughout the development of this project. URA will retain ownership of the land until it is sold for development and will monitor the entire development process. The Department of City Planning will review all development proposals, and the Planning Commission will be responsible for approval of the final site plan and individual parcel rezonings.

The panel recommends that URA actively discharge its role as monitor. In particular, it should stay abreast of industrial market conditions and maintain the ability to recognize any need for midcourse corrections. Given the inevitability of changing circumstances, URA should be capable of suggesting changes to the developer or reacting to suggestions for changes from the developer.

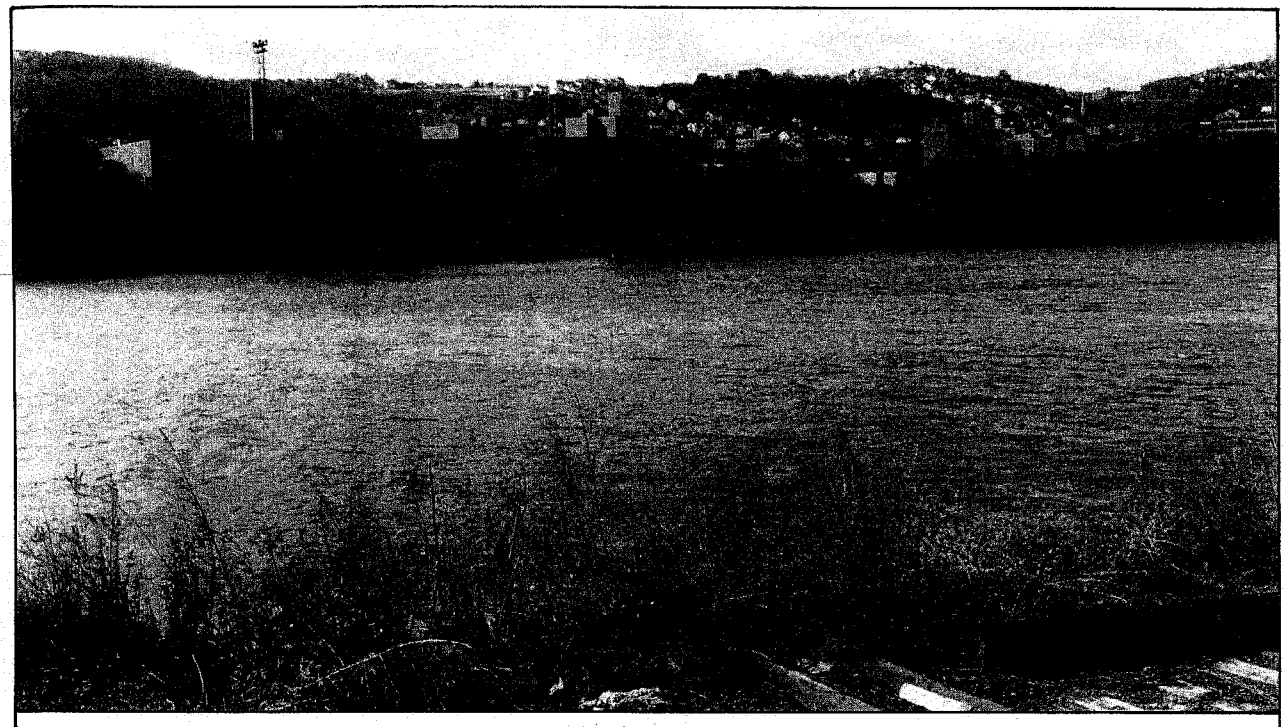
## MINORITY PARTICIPATION

One of the intended public benefits of this project is specific benefits for minorities. Thus, the draft development agreement requires RIDC to comply with the city's Minority Business Enterprise Participation Ordinance. The panel believes URA and RIDC should explore possibilities for devising positive incentives to encourage the participation of minority businesses. In this way, it may be possible to exceed the goals of the required Minority Participation Plan, maximizing levels of minority business participation in the development of the Technology and Industry Park.

## FINANCIAL INCENTIVES

The panel strongly recommends that land sales and rents in the Technology and Industry Park be at the market rate. These market rates should apply equally to RIDC should it buy land and construct and lease buildings in the project, and to any institutions that may wish to locate a facility there. The public sector should not be involved in artificially depressing rates by unnecessarily lowering prices or rents below what the market can pay. Enhancing land values is the overriding financial goal of the panel's recommendations on development and marketing. This goal will automatically achieve the city's objective of job and tax generation.

In the event that RIDC, by mutual agreement, pays less for land than market value (or the stipulated price agreed upon by URA and RIDC in the development agreement), URA should have a claim on profits above and beyond a normal developer's fee, the amount of the fee to be agreed upon in advance. URA's claim should be exercised upon sale or refinancing and should represent the difference between the price RIDC paid and the market price at the time of sale or refinancing. Any agreement to



Providing public access to an improved riverfront is an important element of the project.

sell land for less than market value (or stipulated price) should not include options to purchase additional land at the subsidized price.

Even if market prices increase substantially, however, the land sales price will nonetheless represent a major subsidy to developers and users at the outset of the project. The acquisition and development costs of the land ($14 million estimated) are too high to be recovered through market rate land sales.

This project is not a money maker in conventional real estate terms, because land and development costs are too high. But this outlay by the public sector is eminently justified in terms of the project's positive impact on employment, on the region's economic development strategy as expressed by the Allegheny Conference on Community Development, on the establishment of Pittsburgh as a center of advanced technology, and on the enhancement of land values.

Presently, less than half of the funds required for site development are "in the bank" or visibly forthcoming. URA and other city agencies will need to devote substantial effort and ingenuity to raising the money needed. One method—placing debt on the land—is, in the panel's opinion, highly undesirable. Mortgaging the property would create pressure to sell it quickly to possibly inappropriate users. It would undercut the very important objective of patient, well-guided development in the interest of achieving the optimal result: a high-quality technology park.

Nor should the city, in the panel's view, consider selling the land to a private developer. Typical land financing (in the private sector) requires a debt-to-value ratio that cannot be obtained on this land. The acquisition and development costs of an industrial park ordinarily would not exceed 50 to 60 percent of the initial market value of the land. Unless URA were willing to sell the fully developed land to a private developer at a price under $75,000 an acre (that is, at a substantial loss), private conventional financing would be difficult, it not impossible. Such a sale would undermine the objective of enhanced land value, which, the panel believes, is key to the importance of this project.

The panel concludes that the public sector is justified in spending more on acquisition and development than it will recover in land sales, as long as it seeks to maximize the project's potential for enhanced land values and for attracting appropriate (advanced-technology) users. Moreover, in the panel's view, the Technology and Industry Park is important enough to justify other financial incentives in specific situations. Care should be exercised, however, to limit such incentives to instances where they are needed. If too broadly applied, they become something that the potential developer/user expects as an initial price discount.

Almost all owners and users will be able to avail themselves of tax-exempt revenue bond financing through URA or the Allegheny County Industrial Development Authority. If federal legislation limits the availability of such financing, it should be granted only to projects deemed exceptional and in need of financial subsidy. Similarly, an attempt should be made to secure financing under the low-cost financing programs of the Pennsylva-

nia Industrial Development Authority for special-purpose projects, that is, projects that would fit the park's objectives but that are conventionally infeasible.

Achievement of the "critical mass" calls for the location of startup industries linked to the biomedical, computer, and robotics R&D occurring in Oakland and (eventually) in the Technology and Industry Park. Typically, such startup industries require rental subsidies and support services. The panel recommends that the developer aggressively seek such subsidies and funds for providing such services on-site from the Ben Franklin Partnership and from local and national philanthropic sources. Other capital sources to which URA and the developer might look for providing incentives for desirable startup firms in the project include corporate grants for particular types of R&D, federal funds (Community Development Block Grants, Urban Development Action Grants, Economic Development Administration grants, etc.), and state financing for physical facilities under the recently approved economic development bond issue.

## PROJECT MANAGEMENT

URA's role in the management of the park should be similar to its role in its development: let RIDC, which has a proven record in industrial park management, carry the ball while URA remains uninvolved except as a monitor to ensure that covenants and protective standards are maintained. URA's role as monitor and rights in management decisions should be spelled out in the development agreement and in the protective covenants and restrictions.

RIDC should establish and administer an owners' association, which will be responsible for the maintenance of common areas. URA, as long as it remains the owner of land in the project, will have to pay its prorated share of private common area costs. Like any private sector developer of a planned unit development, it will be the owner of an ever-diminishing portion of the site. Its share of maintenance expenses and its control over standards will likewise diminish as sites are sold.

The panel has recommended that the major street, sidewalks, and a viewing point at the river's edge be publicly built and maintained. Their management should be the responsibility of appropriate city agencies.

As in the development of this project, high standards should also be the hallmark of its management. High standards for management will ensure its continued ability to attract appropriate users that can pay market rents, thus making it a success.

The panel presented its public report at the William Penn Hotel in Pittsburgh, November 16, 1984.

# APPENDIX A

## INVENTORY OF MAJOR INDUSTRIAL AND R&D DEVELOPMENTS: PITTSBURGH METROPOLITAN AREA

| Facility | Location | Land Area (Acres) | Area Developed | Area Available |
|---|---|---|---|---|
| ■ City | | | | |
| Chartiers Valley Industrial Park | Pittsburgh | 300.0 | 235.0 | 65.0 |
| Herr's Island | Pittsburgh | 10.0 | 0.0 | 10.0 |
| Silver Lake Industrial Park | Pittsburgh | 14.0 | 6.0 | 8.0 |
| Woods Run Industrial Park | Pittsburgh | 35.0 | 28.0 | 7.0 |
| Riverfront Industrial Park | Pittsburgh | 20.0 | 17.0 | 3.0 |
| Center City Terminal | Pittsburgh | 10.0 | 10.0 | 0.0 |
| Eleventh Street Building | Pittsburgh | 3.0 | 3.0 | 0.0 |
| Gateway View Plaza | Pittsburgh | 10.0 | 10.0 | 0.0 |
| Subtotal | | 402.0 | 309.0 | 93.0 |
| ■ East Sector | | | | |
| Moya Industrial Park | Monroeville | 52.0 | 17.0 | 35.0 |
| Wilkinsburgh West Industrial Park | Wilkinsburg | 7.0 | 0.0 | 7.0 |
| Progress East Industrial Park | Wilkinsburg | 27.0 | 23.0 | 4.0 |
| Renaissance Industrial Park | Braddock | 5.0 | 4.0 | 1.0 |
| Beatty Road Industrial Park | Monroeville | 6.0 | 5.1 | 0.9 |
| Monroeville Industrial Park | Monroeville | 66.0 | 65.5 | 0.5 |
| Plum Industrial Park | Plum Borough | 16.0 | 15.7 | 0.3 |
| Golden Mile Industrial Park | Monroeville | 5.0 | 4.9 | 0.1 |
| East Oakmont Industrical District | Plum Borough | 20.0 | 20.0 | 0.0 |
| Subtotal | | 204.0 | 155.2 | 48.8 |
| ■ North Sector | | | | |
| Thorn Hill | Marshall | 925.0 | 324.0 | 601.0 |
| Mine Safety Appliance | Cranberry | 326.0 | 0.0 | 326.0 |
| O'Hara Township Park | O'Hara | 600.0 | 510.0 | 90.0 |
| Richland Hills Industrial Park | Richland | 100.0 | 25.0 | 75.0 |
| Seventy Nine North Industrial Park | Aleppo | 70.0 | 16.0 | 54.0 |
| Hibebrand Industrial Park | Harmar | 40.0 | 0.0 | 40.0 |
| Highlands Industrial Park | Harrison | 30.0 | 0.0 | 30.0 |
| Allegheny Industrial District | Harmar | 100.0 | 73.0 | 27.0 |
| Allegheny Valley Industrial District | Harmar | 100.0 | 75.0 | 25.0 |
| Casey Industrial Center | O'Hara | 36.0 | 18.0 | 18.0 |
| Shaler Industrial Park | Shaler | 12.0 | 0.0 | 12.0 |
| Northeast Industrial Park | Indiana | 22.0 | 12.0 | 10.0 |
| Buncher Leetsdale Industrial District | Leetsdale | 89.0 | 83.0 | 6.0 |
| Subtotal | | 2,450.0 | 1,136.0 | 1,314.0 |

| | | | | |
|---|---|---|---|---|
| ■ West Sector[1] | | | | |
| Western Park | Cecil | 600.0 | 0.0 | 600.0 |
| Park West | Findlay/North Fayette | 500.0 | 200.0 | 300.0 |
| Airport Industrial District | North Fayette | 280.0 | 40.0 | 240.0 |
| Meadowlands Industrial Park | Houston | 200.0 | 40.0 | 160.0 |
| Imperial Industrial Park | North Fayette | 100.0 | 2.0 | 98.0 |
| Oak Park Industrial Park | North Fayette | 100.0 | 2.0 | 98.0 |
| Bethel Park Industrial Park | Bethel Park | 80.0 | 55.0 | 25.0 |
| Oakdale Industrial Park | Oakdale | 25.0 | 2.0 | 23.0 |
| Southpoint 79 Industrial Park | Bridgeville | 25.0 | 4.0 | 21.0 |
| West Mifflin Industrial Park | West Mifflin | 20.0 | 0.0 | 20.0 |
| Airport East | West Mifflin | 38.0 | 18.0 | 20.0 |
| Pittsburgh Airport Industrial Park | Findlay | 22.0 | 3.0 | 19.0 |
| McKees Rock Industrial Enterprises | McKees Rock | 100.0 | 85.0 | 15.0 |
| Robinson Township Industrial Park | Robinson | 15.0 | 0.0 | 15.0 |
| United Industrial Park | Bridgeville | 15.0 | 0.0 | 15.0 |
| Vista Industrial Park | Robinson | 30.0 | 27.7 | 2.3 |
| Parkway West Industrial Park | Robinson | 50.0 | 48.5 | 1.5 |
| Chartiers Valley Shopping Center Industrial Park | Collier | 22.0 | 22.0 | 0.0 |
| Progress West Industrial Park | Robinson | 100.0 | 100.0 | 0.0 |
| Heppenstal Industrial Park | Lawrenceville | 12.5 | 12.5 | 0.0 |
| Buncher Groveton | Robinson | 20.0 | 20.0 | 0.0 |
| Phillips Industrial Park | South Fayette | 10.0 | 10.0 | 0.0 |
| Great Southern Center | Bridgeville | 0.0 | 0.0 | 0.0 |
| Subtotal | | 2,364.5 | 691.7 | 1,672.8 |
| TOTAL | | 5,420.5 | 2,291.9 | 3,128.6 |

[1]The west sector extends west and south of Pittsburgh.

# ABOUT THE PANEL

### WILLARD G. ROUSE, III, CHAIRMAN
### Malvern, Pennsylvania

Rouse is a partner in the firm of Rouse & Associates, which he founded in 1972 in Malvern, Pennsylvania. The firm's primary endeavor is the development of industrial and office properties. Formerly, he was managing partner of the Bernguil Company, the developers of Mid-Atlantic Park, West Deptford Township, New Jersey.

### RODGER E. FAGERHOLM
### Redmond, Washington

Fagerholm is president/Northwest Division of the Koll Company, responsible for the company's general contracting in Oregon, Washington, and Idaho and for the division's development of business and office parks, industrial distribution facilities, urban office complexes, and retail shopping centers.

### WILLIAM A. GOULD
### Cleveland, Ohio

Gould is president of Gould/Associates, Inc., a firm involved in land planning, site analysis, land use and feasibility studies, architecture, and land development and market analysis in Ohio and Florida. Among the firm's projects is the Tampa International Center, for which its responsibilities included planning, architecture, interior design, landscape architecture, and graphic design.

### GORDON HALL, III
### Boston, Massachusetts

Hall is the senior vice president of R. M. Bradley & Company, which he joined in 1960. A trustee of the Mutual Bank of Boston and chairman of the Amherst College Alumni Fund, Hall has 23 years of experience in the marketing and organization of development projects.

### JEROME J. MICHAEL
### Bethesda, Maryland

Michael heads his own consulting firm, specializing in income-producing properties—retail, office, industrial, multifamily, and multiuse. Before opening his own office in 1973, he was associated with Larry Smith & Company. Throughout his career, he has directed or been an active participant in projects ranging from downtown revitalization to suburban regional centers, recreational land use, and public facilities, both in the United States and abroad.

### ROSLYN M. WATSON
### Boston, Massachusetts

Watson is general manager of the Massachusetts Transportation Building, an 880,000-square-foot, publicly financed office, retail, and garage project adjacent to Boston's theater district and Back Bay. Previously, she was Massport's project manager for the redevelopment of Commonwealth Pier Five into BOSCOM, a computer and communications trademart. Her experience includes commercial leasing, structuring public/private development projects, adaptive use, and historic preservation planning.

### ROGER A. ZANARINI
### Omaha, Nebraska

Zanarini, as director of real estate development at Upland Industries Corporation in Omaha, Nebraska, has direct responsibility for the coordination and control of Upland's real estate development program. He initiates and directs new Upland development projects, including business parks and high-technology centers, mixed-use projects, adaptive use projects, and selected commercial ventures.