

P378
.Sch255

[redacted]
Montana State University Library, Bozeman

THE PAST LIES BURIED

•••

A REVITALIZATION/READAPTATION OF THE CENTRAL BUSINESS DISTRICT BELDING, MICHIGAN

by
Dale Scheiern

A thesis submitted in partial
fulfillment of the requirement for
the degree of
Bachelor of Architecture

Approved:

Thesis Advisor

Thesis Committee

Director, School of Architecture

Montana State University
Bozeman, Montana
March, 1988

CAL
NA2540 P378 .Sch255
Sch25

STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a Bachelor of Architecture degree at Montana State University, I agree that the Library shall make it available to borrowers under rules of the Library. Brief quotations from this thesis are allowabe without special permission, provided that accurate acknowledgement of source is made.

Permission for extensive quotation from, or reproduction of this thesis may be granted by my major advisor, or in his absence, by the Director of Libraries when, in the opinion of either, the proposed use of the materials is for scholarly purposes. It is understood that any copying or publication of this thesis for financial gain shall not be allowed without my permission

Signature Dale L. Schwarz

Date 4/8/88

To my family, especially mom and dad:

Thanks for your love and the support, encouragement, and wisdom it includes. Without you all I couldn't have grown. You have given me the courage to look inward, the sensitivity to reach outward, and the wisdom to find and enjoy the simple pleasures that give life a deeper meaning.

Acknowledgements:

To the members of the Dolittle Club--Ong Chung, Mike Glassing, Dave Seabury, Dave Trotter, and Chris Wesche--thanks, guys, for open minds, common goals, and shared ethics.

To Carita Rothing and Dave Seabury, two special friends: I couldn't have done it without you.

CONTENTS

INTRODUCTION

A HISTORY

BELDING TODAY

BELDING PRODUCTS PLANT E

THESIS SYNOPSIS

- PURPOSE
- FOCUS
- SCOPE
- GOALS
- PROBLEM STATEMENTS

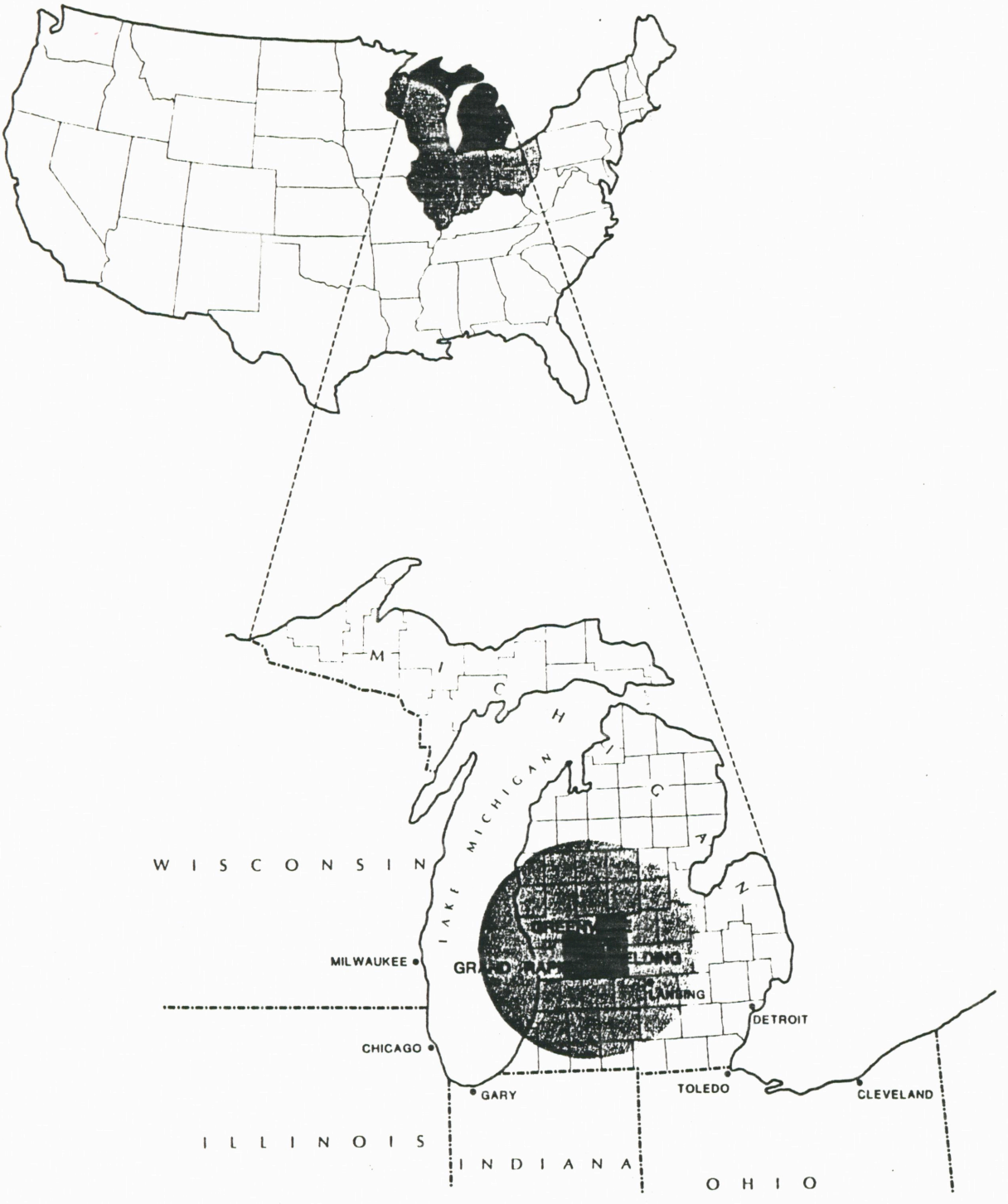
CLIMATE DATA

THE CONTEXT

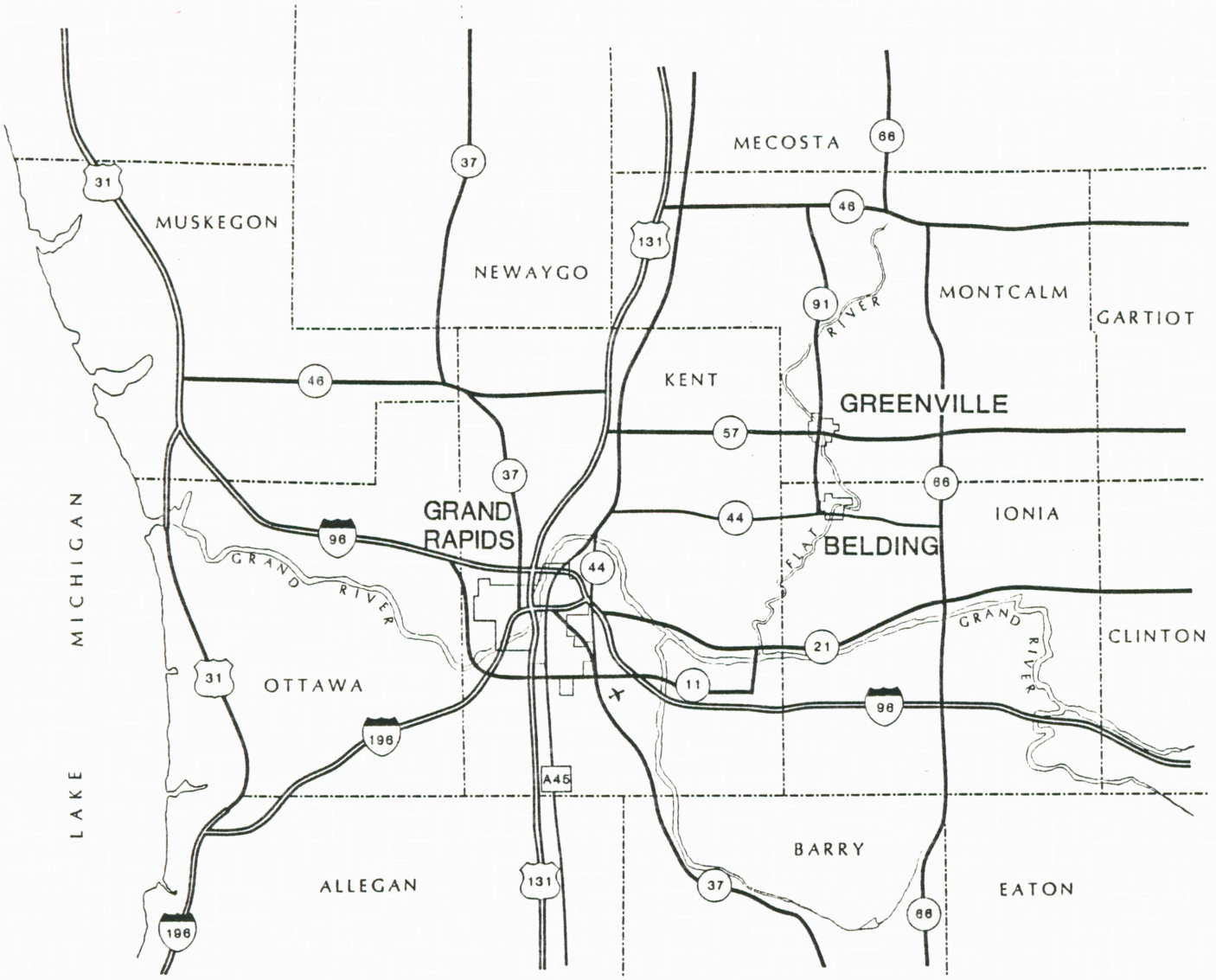
PRECEDENTS

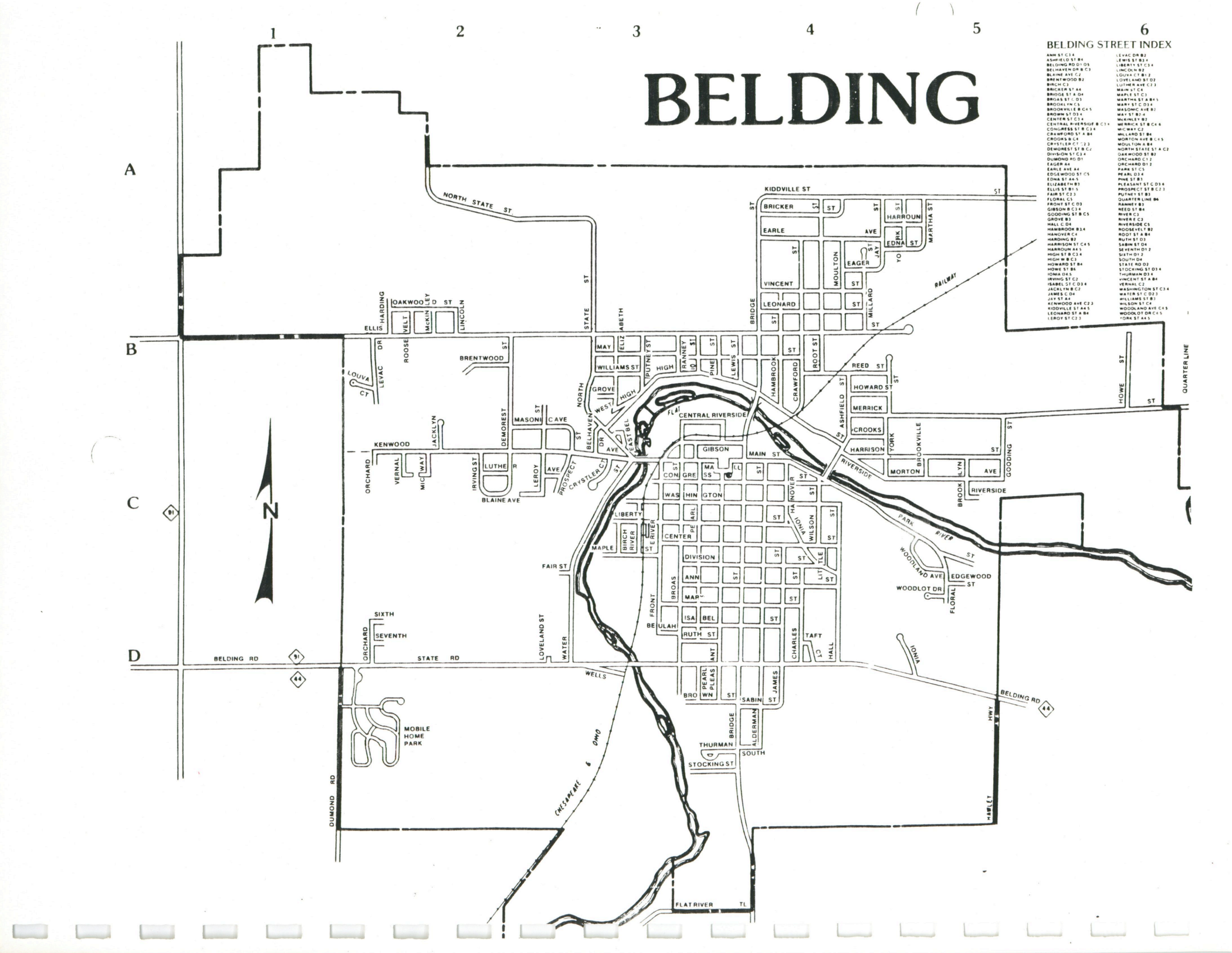
THESIS PRESENTATION

REGIONAL LOCATION



AREA LOCATION MAP

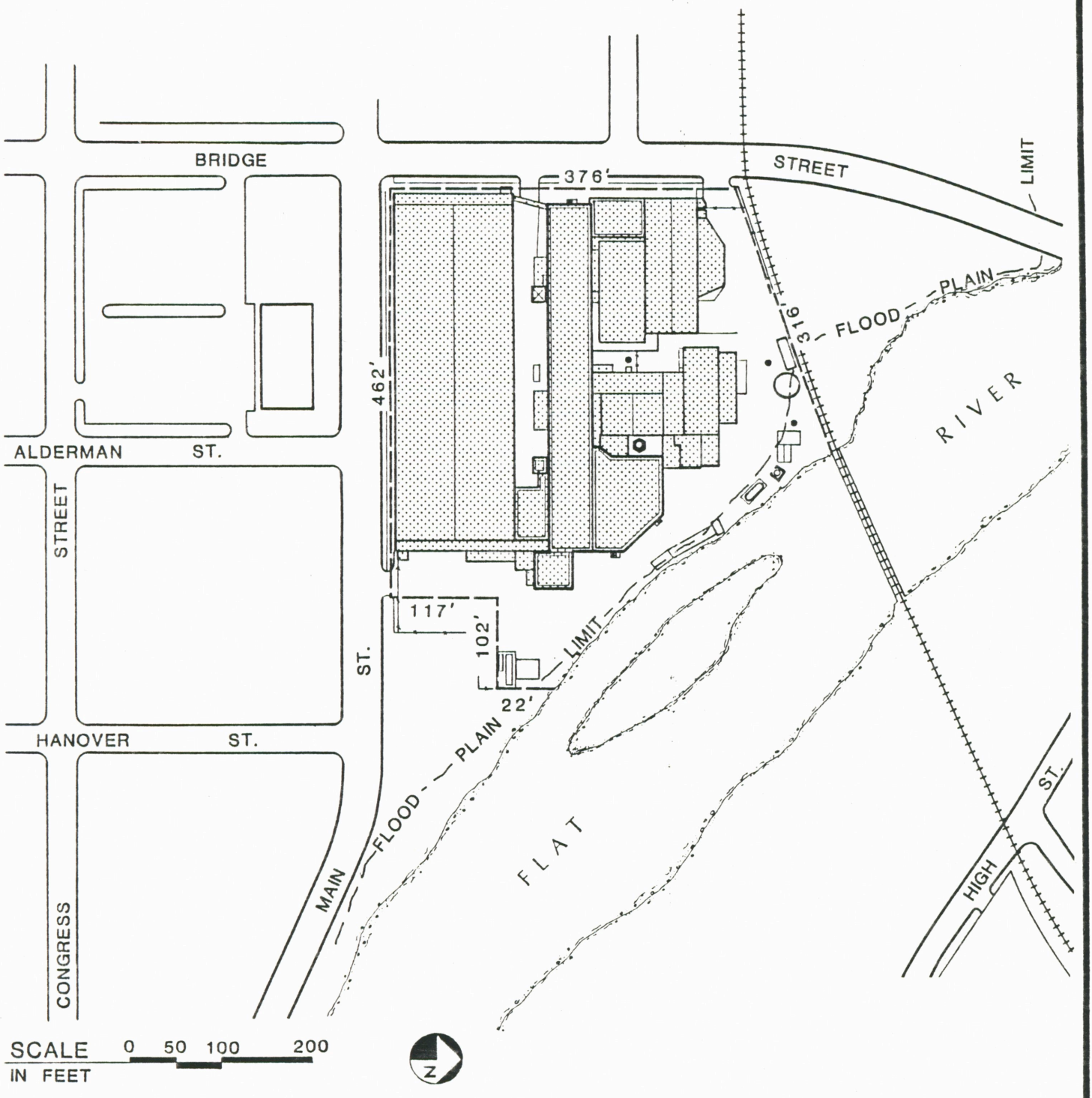



BELDING
1
2
3
4
5
6
A
B
C
D
BELDING STREET INDEX
NORTH STATE ST
KIDDVILLE ST
BRICKER ST
EARLE AVE
VINCENT ST
LEONARD ST
HARROUN ST
EDNA ST
MARTHA ST
EAGER ST
MOULTON ST
MILLARD ST
RAILWAY
OAKWOOD ST
ELLIS ST
HARDING
ROOSEVELT
MCKINLEY
LINCOLN
STATE ST
ELIZABETH
BRIDGE ST
LOUVA CT
LEVAC DR
BRENTWOOD ST
MAY ST
WILLIAMS ST
PUTNEY ST
HIGH ST
RANNEY ST
PINE ST
LEWIS ST
HAMBROOK
CRAWFORD
ROOT ST
REED ST
HOWARD ST
MERRICK
CROOKS
HARRISON
MORTON AVE
HOWE ST
QUARTER LINE
GOODING ST
BROOKVILLE
YORK
ASHFIELD ST
NORTH GROVE
WEST HIGH
EAST BELDING
CENTRAL RIVERSIDE
MASONIC AVE
DEMOREST ST
BELHAVEN DR
KENWOOD
JACKLYN
ORCHARD
VERNAL
MICHIGAN WAY
IRVING ST
LUTHER AVE
LEROY AVE
PROSPECT
CRYSTLER CT
BLAINE AVE
GIBSON
MAIN ST
CONGRESS ST
WASHINGTON
HANOVER ST
LIBERTY
CENTER
DIVISION
ANN
MAPLE
BIRCH RIVER
FAIR ST
FRONT
BROAS
BEULAH
RUTH ST
ISABEL
BELDING
LOVELAND ST
WATER
CHARLES
TAFT
HALL
PEARL
PLEASANT
JAMES
SABIN ST
ALDERMAN
THURMAN
STOCKING ST
SOUTH BRIDGE
WELLS
SIXTH
SEVENTH
ORCHARD
BELDING RD
STATE RD
MOBILE HOME PARK
DUMOND RD
CHESAPEAKE & OHIO
FLAT RIVER
FLAT RIVER TL
PARK
RIVER
WOODLAND AVE
EDGEWOOD ST
WOODLOT DR
FLORAL
IONIA
HWY
HARLEY
N
91
44

PROPERTY BOUNDARY

PLANT "E"

4.5 ACRES



INTRODUCTION

A town of 5,600 people, Belding is situated along the beautiful Flat River in the west central portion of the lower peninsula of Michigan. I will call it a typical small town in the sense that it recalls the picturesqueness of small towns in many parts of the United States.

Beyond the mere physical presence, though, are the multi-layered attitudes, ideals, memories, and dreams which create a uniqueness in each small town throughout the world. Belding, then, is typical in its uniqueness. Strong are the community bonds. Seldom does one journey through town on business or shopping without stopping to visit about Friday's football game, or how things are going down at the shop. The common experiences, the shared responsibilities of dwelling together, are powerful bonds for residents of small towns everywhere.

The original settlers and farmers were of Northern European descent, and the town exists in a landscape reminiscent of the rolling hills and fields common to portions of Germany and Denmark. The steep pitched roofs of the houses and the towers and steeples of factories and churches also bespeak a romantic image.

In many ways, it is as if time stands still, and the world passes by without eroding much of the essence of Belding. Much of the town has been left to age gracefully, and the homes and factories remain the same as when they were built. When change has occurred, it has been swift and sometimes difficult.

In the twenty years before 1900, the small lumber and farm community grew rapidly as it surged to prominence as the "Silk City of the World." The decline of the silk industry was equally as swift, leaving the townspeople without jobs and with nowhere to go.

During the 1960's change came in the form of Urban Renewal which was financed by government grants. The architectural history was radically altered as the decaying central business district was bulldozed in a quest for modernity. In its place stands a legacy of 1960's suburbanization: the Covered Village Mall. A sea of asphalt surrounds this inwardly focused downtown mall. Main street no longer exists! In its place is a parking lot, the most imposing feature as one arrives "downtown." The vehicular domain totally dominates the architecture of the central business district. No accomodations were made to define vehicular or pedestrian movement in the area.

Today Belding faces a major loss of industry. It is fast becoming a bedroom community in which many of the residents commute to neighboring towns to work. The combined influence of Urban Renewal and the loss of industry create a unique environment in which to search for future possibilities. I have chosen this environment for my thesis because of the desire to once again see the small town as a cohesive entity. Appropriate gestures must be made to encourage patronage of Main Street, USA. I feel that it is imperative to recentralize small towns, re-establish identity, replace the placelessness of suburban sprawl. Small towns must not succumb to the ills of dereliction that face many large urban centers. Commercial strip development that destroys the character and identity of small towns should not be encouraged. Anywhere, USA just isn't good enough.

A HISTORY

In 1838 Charles Broas moved west from Broome County, New York to Ionia County where he purchased four eighty-acre land parcels in the "Plains of Otisco." He occupied the land and in February of 1839 he and his family settled into an 11' x 14' cabin which he and his son Levi had built. In 1840 Broas, with the assistance of several other settlers, built a bridge over the Flat River at the present site of Belding. In 1842, Broas constructed a wing dam and race and erected a sawmill there. During the same year, Lucius Patterson and Alex Loomis moved to the area. Mr. Patterson bought a share of the Broas mill and joined in building a dam across the river. The sawmill did not do well and after a time was abandoned. Broas then devoted himself to farming until his death in 1855. The mill lay neglected until 1856 when Patterson renewed his possession. He hired Volney Belding to build a new dam and to improve the mill which Patterson then set into motion.

Until 1857 the place was known as Broas Rapids. During that year a post office was established and given the name of Patterson Mills. After one year the post office was closed. In 1855 Hiram Belding had purchased a tract of land from Levi Broas. In 1858 a carpenter named S. S. Brown, moved to Patterson Mills and was hired by Belding to build a house which was completed in 1859.

In 1862 the post office was re-established with Brown as postmaster. That same year Lucius Patterson sold his interest in the lumber mill; it changed hands several times until 1871, when the firm of Wilson, Luther, and Wilson purchased it. Their modernized mill was capable of running 50,000 to 60,000 board feet of lumber daily. This enterprise provided the catalyst for the town's first "boom." Thousands of white pine were cut and floated downriver to the mill, which employed many people. With the new capital investment, the town grew rapidly.

In 1871, the town name was changed from Patterson Mills to Belding. The legacy of the enterprising Belding brothers whose steps we will retrace remains highly visible in the town today.

In 1855, Hiram Belding was attracted to the fertile plains of the West. He settled with his family at Patterson Mills, Michigan, buying a farm where the city stands to day. Belding's sons Hiram H. and Alvah, who were working on the farm with their father, sent east to their brother Milo for a stock of silk. Before leaving Massachusetts the brothers had supplemented their incomes by peddling goods around the hill town of Ashfield. Milo sent to Patterson Mills $145.60 worth of goods. Hiram H. and Alvah traveled on foot to peddle the merchandise. It wasn't long until they had earned enough to buy a horse apiece. The improved transport allowed them to supply merchants as well as

housewives. By 1863, the business had grown so that Milo was asked to join them. Belding Brothers & Company was formed as a partnership that year. Soon afterward, the eldest brother David joined the firm, which was later to use one-twentieth of all silk imported into the United States.

In 1864, Belding Bros. & Co. joined E. K. Rose of Rockville, Connecticut, in a partnership where the latter owned a small mill manufacturing silk. The output of the first factory was soon inadequate, and in 1876, another factory was established in North Hampton, Massachusetts. Increased demand again taxed the capacity of these mills. In 1886, the first mill was built in Belding. Another was built in 1892 and one in 1909; by 1925, six mills were in operation, producing 95% of the silk thread manufactured in the U.S. These mills manufactured sewing silks, embroidery silks, and silk fabrics. A thousand looms were in operation and the factories employed 2,000 people, nearly half of whom were women.

The Belding family assumed a paternalistic attitude toward the town. They built or financed many of the business places along Main Street and rented homes throughout town to the mill workers. An Opera House and Hotel Belding, as well as a hospital, were part of Belding Bros. & Co. Enterprises. The hotel was one of the finest and most modern between Detroit and Chicago. The company also maintained three dormitories for women employees. The

Belrockton, the Richardson, and the Ashfield boarding houses were nationally acclaimed as the most modern in employee housing. Presided over by matrons, these dormitories had hot and cold water, parlors with pianos, and libraries with the most current newspapers and magazines. Room and board was $2.50 per week and wages were $10 per week. There were also tennis and croquet grounds and a gymnasium for the enjoyment of the employees. A boardwalk along a portion of the river was the place for romantic meetings and peaceful evening strolls.

All of this earned Belding the name of "Silk City of the World." It was one of the few American towns familiar to the Japanese, as much of their silk was shipped there. However, a decline in the silk industry began in the 1920's with the introduction of a cheaper synthetic--rayon--and in 1932, the last Belding Brothers mill was closed. This, combined with the Depression, was a major blow to Belding residents. Many were trained only in the manufacture of silk and there were no other factories to absorb the unemployed workers. The unemployed filled the warm, well-lighted library night after night to read newspapers and the few new books available. There were few social events, school activities were curtailed, and people were shabbily dressed. Morale and finances were at a low point. The town remained depressed until the early 1941, when welfare and work programs helped alleviate some of the

problems; but it was World War II which finally provided the boost the industrial town needed. The factories were adapted to meet the diverse needs of wartime manufacturing. With the modernization of factories, the growth and development of Belding remained strong after the war.



BELDING TODAY

Presently, there are 30 different manufacturing firms involved in 17-20 major industrial types. The major industries in Belding today include the manufacture of air conditioners (closing soon), office and hotel furniture, furnaces, the extrusion of brass and aluminum, industrial painting, food and chemical processing and storage tanks, apple vinegar, cider and juice, and fruit storage and processing. Belding is also located in a strong agricultural economy. Sixty per cent of Ionia County is productive farmland. The outlying areas are part of Michigan's major fruit producing region. Apples, peaches, cherries, pears, plums, and berries are all grown within ten miles of Belding. Farms near Belding also utilize the rich lowland muck to grow celery, onions, and other vegetables as lucrative cash crops. Dairy farms are common, and wheat, oats, corn, soybeans, and alfalfa yield well in the fertile soils.

The Belding Area School District serves Belding and the surrounding communities within an eight- to ten-mile radius. There is one high school, a middle school, and three elementary schools. Two elementary schools in nearby Orleans and Grattan are presently closed. Budget measures required consolidation, so students are bused to the town schools. The St. Joseph Catholic parish also provides a parochial school through grade six. The

churches in the area are of many denominations and play an important role in the closely-knit community fabric. Some of the more distinctive architecture in the area is found in the religious buildings. Rich woodwork, stained glass, and ornate sculpture adorn many of the area's churches.

The City of Belding maintains several parks. Central Riverside Park north of the downtown area includes picnic and playground space, a pavilion, and six tennis courts. East Riverside Park is an older park with picnic facilities, a pavilion, a boat launch, and several acres of wooded hillside. Demorest Field has two Little League diamonds and one regulation-size diamond. There are two golf courses close to town which are beautifully laid out and maintained. Reservations are recommended!

People in the area have many other outdoor recreational opportunities as well. Cross country skiing, hunting, fishing, camping, snowmobiling, canoeing, and horseback riding are within minutes of downtown Belding. There are over 100 lakes, several rivers, and many small streams within a twenty-mile radius. Swamps and marshlands provide habitat for many bird and animal species.

Belding can boast of its fine senior housing. Two modern complexes are located near downtown. Many fine older homes, neatly groomed and well-maintained, line the tree-shaded streets. Several subdivisions of modern homes have developed over the last fifteen to twenty years on land previously

vacant inside the city limits. Subsidized single family and apartment units are also available, and the rental market enjoys a healthy one per cent vacancy rate. The Richardson Mills, a recently restored silk mill, opened in 1986 with 71 units. All are full and a waiting list has 40 or so applicants.

Each year the residents celebrate several special events. A three-day festival is held each year on Labor Day weekend, when Belding shows its respect and pride toward labor and industry in the community. A carnival is set up for the weekend, and a parade and an extravagant fireworks display are the setting for a major homecoming event. The annual October Apple Fest celebrates that major cash crop with a day-long festival. Apples, cider, food booths, arts and crafts, and other activities fill the day. Belding was also the proud host of the 1987 annual Gus Macker three-on-three basketball tournament. Previously held in neighboring Lowell, the sponsors brought the tournament to Belding last year. Fifty hoops were set up and several hundred teams competed in the streets. The event attracted thousands of spectators, the likes of Magic Johnson and numerous other college stars included. Sponsors were enthusiastic about their reception and the generosity of townspeople, and it seems the event has found a new home.

BELDING PRODUCTS PLANT E

Belding lies about twenty miles northeast of Grand Rapids and fifty miles north and west of Lansing. To the north seven miles is the city of Greenville; fourteen miles to the southeast is the county seat, Ionia. The three state highways which serve Belding provide access to all parts of Michigan.

Since the late 1800's, Belding has been home for industries manufacturing refrigerators. That industry has run the gamut from ornate wood and metal ice boxes to modern refrigeration units. From 1884 to 1904, the Belding Manufacturing Company made the old style ice boxes. That firm became Belding-Hall in 1908, at which time they employed 300 to 350 employees producing $600,000 worth of goods per year. In 1932, Frank Gibson purchased Belding-Hall and formed Gibson Refrigeration, the largest manufacturer of ice refrigerators in the industry. The Belding plant was later converted to produce room air conditioners. Refrigerators continue to be made in Greenville at a sister facility. In 1973, White Consolidated Industries bought the Gibson-Hupp Corporation and Belding Products, Inc. was founded. The plant, which will be closing in the spring of 1988, manufactures air conditioners of 5,000 to 30,000 BTU's for a worldwide market.

Much of Belding's architectural heritage has been spared by the longevity of consistent uses. Growth in local industry has been compatible with the structure of the original mills.

The character of these mills is one of earthy things: brick, wood, and labor, masterfully combined in a manner of craftsmanship inherent to the citizens of Belding. Recognition of superior workmanship and quality products have consistently been awarded to the owners and workers in local industries.

The immediate impact of the BPI closing is a serious economic blow. A primary concern at this time is how Belding will be affected by the loss of many jobs. How will the vacant buildings be used? As policymakers assess these unique circumstances, they must consider a variety of long-term solutions. This initially depressing loss provides an opportunity to adapt to change gracefully. Appropriate use of these buildings could encourage growth by restoring integrity to public spaces and by recapturing the richness of a pleasing aesthetic. The industrial architecture, the civic buildings, and the artifacts of the 1900's Main Street all constitute integral parts in the identity of this peaceful town.

My decision to rehabilitate portions of the Belding Products plant E is based on several points.

The silk mill at the center of the plant is a landmark for Belding residents. As a visual center it is a constant reminder of stability and an enduring monument to the foresight of the city's founders.

The structural integrity of the building speaks for itself. After 100 years, it is still sound and is used daily for manufacturing purposes. Alterations have been made over the years to accomodate new technologies, but none so radical as to be irreversible. The brickwork is still stable and the wood beams and steel columns are well-preserved and maintained.

The central downtown location is a primary factor to be considered. The small town context will require thoughtful sensitivity in the re-adaptation of the four-story building and its twin towers. The other civic functions along Main Street are compatible to re-adaptation of the factory for non-industrial uses. Plant E is adjacent to the Alvah N. Belding Library, the Belrockton Community Center, the post office, a professional building (currently BPI executive offices) and the only remaining 1900 vintage commercial façades. It is also adjacent to the Masonic Temple, a bank, the Covered Village Mall, and city parking areas.

The major retail activity is on the west side of the mall. Leppink's grocery and Rayborn Hardware are the most stable retail stores in town. Retailers in the mall are unable to compete with those stores and their comprehensive

inventories. There are no major anchor stores to stimulate activity in the mall. By providing activities and shopping on East Main, pedestrian traffic through the mall would be encouraged.

Re-adaptation of Plant E to compatible commercial and residential uses could be successful if the following points are considered. It is necessary to:

(1) Regain Main Street as an activity generator;

(2) Re-establish a humane scale to improve the character of the downtown district;

(3) Re-establish pleasant pedestrian paths to connect the civic buildings to the downtown business district;

(4) Regain continuity of the river frontage and its use by city residents;

(5) Remove industrial noise and truck traffic from the central business district;

(6) Improve the aesthetic characteristics by the removal of visual blight caused by insensitive architecture.

Thus, with the Belding Products (BPI) plant closing, the major employer is leaving the community of Belding. The properties affected total 122.8 acres and 458,862 square feet of industrial space. These buildings date from 1881 to the 1960's. The factory which is the base of this study is designated by BPI as Plant E; it is slated for shutdown in the spring of 1988. The building measures

230,625 square feet and occupies a 4.5 tract of land south of the Flat River in the central business district of Belding. The site has 462 feet of Main Street frontage and 376 feet of frontage on Bridge Street, which is the major traffic artery for the entire city. The Chesapeake and Ohio Railroad borders 316 feet on the north side of the site, and there are approximately 400 feet of river frontage. Only a small percentage of the site is designated flood plain.

Presently the site is very constricted as most of the buildable area is covered by buildings. The bulk of the employee parking is located off-site on three leased parking lots. Truck access is at the northeast and southwest corner of the site and occupies the entire river frontage.

The plant is composed of adjoining structures of many different types and ages. Area per floor is:

Basement - 75,995 square feet
Main floor - 94,310 square feet
Third floor - 30,710 square feet
Fourth floor - 29,610 square feet.
Total Area: 230,625 square feet

The following is a brief description of each building division:

Building #1: The original Silkmill Building (#1) was constructed in 1890 of load bearing brick masonry and two central rows of round steel columns supporting wooden beams and wooden floor and roof decks. The column

spacing is eight feet, creating twenty-foot bays continuous on each side of a central axis. Ceiling height varies per floor from twelve to fourteen feet. The four-story structure encompasses 78,270 square feet. The exterior brick work is quite attractive although mostly hidden by building additions. The clock tower on the south side of the building is also quite attractive and is the most prominent feature of the city.

Building #1-B:

This addition was constructed in 1966. The four floors total 30,280 square feet, each floor at 7, 570 square feet. Construction is of concrete foundations, steel frame columns and beams, brick masonry exterior walls, and wooden floors. This structure was added to the north side of building #1 to serve as truck docking and freight elevators which service the upper floors of building #1. Most of the area is used as storage with some office space on the second floor. This building shows no sensitivity to the original structure, and it is severely lacking in character. "Bland" is a forgiving term to describe this addition.

Building #1-C:

Building #1-C is an infill structure between the original mill and the southernmost portion of the plant, building #19. Construction is similar to #1-B. The basement floor is currently used as a tool shop and contains 2,990

square feet. The main level of 2,630 square feet is a finished office area. Here again, function and program were the overriding criteria, with little respect shown to the character of the original mill.

Building #2:

Added to the east end of building #1 in 1900, this addition is nearly identical to the original structure. Photographs and on-site inspection show the exterior detail and fenestration to match that of building #1. The four-floor, 7,200-square-foot addition was originally the shaft house for the mill. The main floor has a lobby/reception area and is the main visitor entry to the plant. The remainder is converted to offices.

Building #3:

This building was also built in 1900. Centrally located on the north side of building #1, it contains 5,200 square feet on four levels. The materials and construction are the same as building #1. The basement houses air compressors, and the main floor is open storage. Here again, the adjacent structures hide from view the detailed brickwork. The third and fourth levels house a conveyor system. It is apparent that this portion of building #3 was added at a later date. The exterior is corrugated steel siding over frame construction.

Buildings # 4, 5, & 6:

This group of buildings are interconnecting structures adjacent to building #3. They contain 3,380 square feet and are used to house boilers, air compressors, fire pumps, and building utilities. Building #4 is a 2,230-square-foot brick structure with steel ceiling joists and a wood deck. Although the brick work and pitched roof vary from the original mill, these buildings still show a respect for the aesthetic integrity of the previous architecture.

Building #7:

It appears that building #7 once stood free of the main plant. Built in 1900, it consists of 2,900 square feet on both the basement and main levels. Construction is similar to building #1.

Buildings #7A, 7B, 7C, and 8:

These additions are merely shelters to cover space. Their use is for miscellaneous repair, testing, storage, and waste disposal. The construction is a variety of wood and steel systems with slab on grade floors.

Building #16:

The building here was constructed in 1948 of steel frame columns and beams with metal siding and roofing. It is a typical metal industrial building containing 8,890 square feet; the space is used for spray painting operations.

Building #19:

Considered the best manufacturing building on the site, this 140 x 400' structure also has an 8,320 square foot mezzanine level. It is built on a concrete slab foundation with steel columns, brick perimeter walls, and a wood bow truss roof structure. In 1951, this building was inadvertently placed over a park area in front of the original mill. The imposing thirty-foot-high industrial façade totally dominates East Main Street and has destroyed any view of the previous architecture. The building was constructed to the dismay of many residents of Belding who for years had enjoyed the park space.

Building #20:

Building #20 is an 11,380-square-foot clear span structure built in 1959. The concrete foundation and load-bearing masonry walls support a steel truss and deck system. It is used for a waste water treatment and storage system.

Building #20A:

This structure was built in 1960 to serve as a loading area for building #20. It is a 2,350 square foot steel structure in poor condition.

PURPOSE

As our national economy and employment trends swing away from industrialization toward high technology and service industries, more and more factories become obsolete. Local economies falter as manufacturers and corporations abandon small towns in favor of larger urban centers. Efficient industrial parks, airports, and freight transit systems in cities cannot be matched by small towns with minimal budgets and limited tax bases.

The Belding Products plant is an opportunity to work within a context and a community to redefine an architectural experience. For me, the plant closing is a stimulus to explore an alternative.

FOCUS

Belding Products Incorporated manufactures components and assembles air conditioning units in a factory in the central business district of Belding, Michigan. The focus of my thesis will be to address the significance of the industrial site and the importance of its Main Street and river frontages as a basis for an architectural solution.

The original silk mill at the heart of the facility was built in the 1890's. As an historical structure, it has been the visual and psychological center of the community. Design must respond to the framework of this given context and utilize elements sensitive to the image qualities of Belding's architectural heritage.

SCOPE

Within any successful community, opportunities for social and economic interaction must exist. Varied compatible functions incorporated into a complex can do much to generate the types of activities and citizen participation that small towns need. Thus, a multi-use complex which will incorporate the following entities is proposed:

(1) 70-80 apartment type residential units with adequate on-site resident parking;

(2) Restaurant/Lounge;

(3) Retail and specialty shops;

(4) Office space;

(5) Theatre/Auditorium;

(6) Exterior courts, gardens, and pedestrian pathways.

Because of the multitude of issues that would arise within each of these functions, it would be unmanageable to resolve this problem in all its programming intricacies within the given time frame. Therefore, emphasis will be given to more comprehensive planning issues as a base for the discovery process. Exterior spaces will be of primary concern inasmuch as interior spaces are somewhat secondary to community interaction.

GOALS

A. To create a humane scale and character along East Main Street;

B. To provide a variety of functions in which residents can participate, thereby encouraging patronage of local businesses in the downtown area;

C. To improve the path experience to encourage pedestrian movement between civic buildings, commercial and residential areas;

D. To enhance the architectural heritage and invite tourism by freeing historical buildings;

E. To provide a place for local festivals and community activities;

F. To manipulate on-site functions to be sensitive to and improve the quality of natural elements (e.g., river front);

G. To re-establish towers as landmark and regain visual connection to base of towers.

PROBLEM STATEMENTS

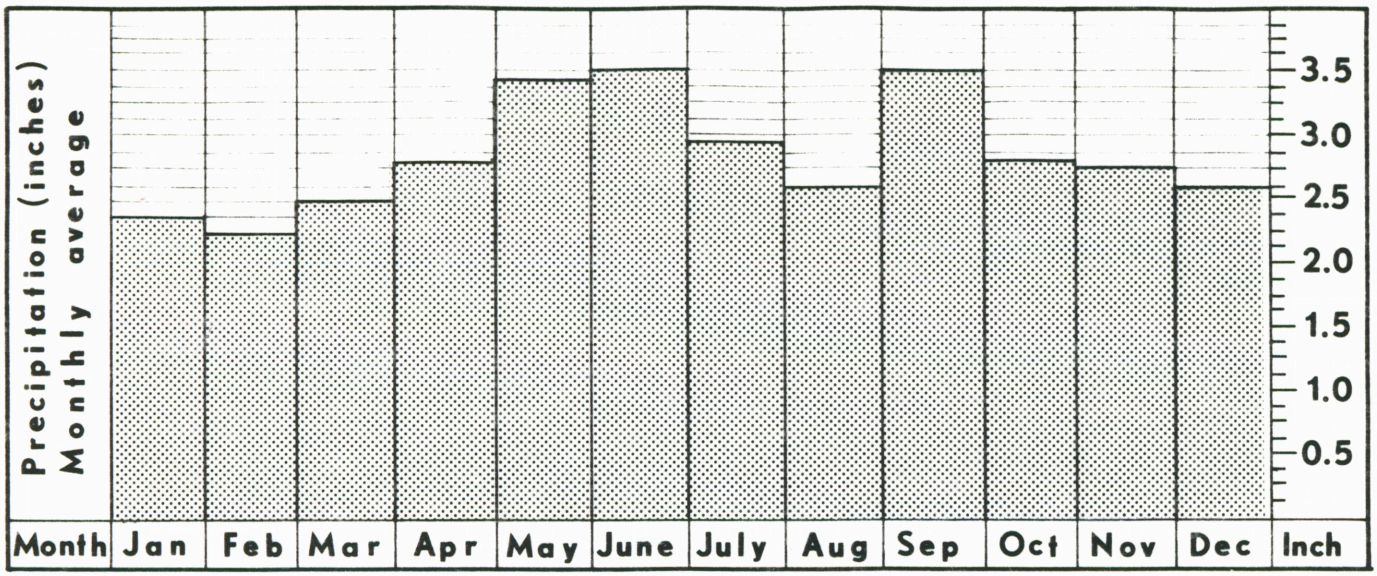
A strong pattern language exists in Belding. Clues to form, fenestration, and façade treatment should not be ignored. A vocabulary exists from which the designer can draw to create a cohesive and sensitive architecture.

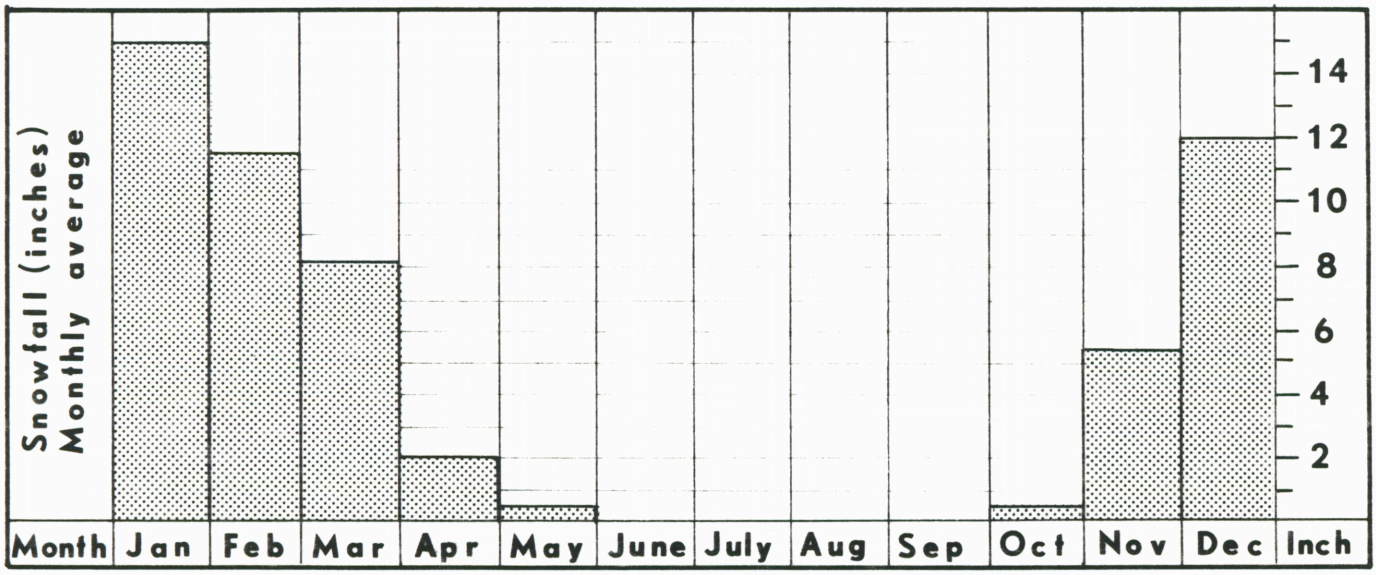
The silk mill must regain its integrity as an orientation, identification, and symbolic device within the fabric of Belding. It provides a rich palette of materials, textures, and elements of form to which any design must respond. This palette of materials and textures must be used to enhance visual and physical tactile experiences. Sensitive use of materials and textures can provide a comfortable unity in the design.

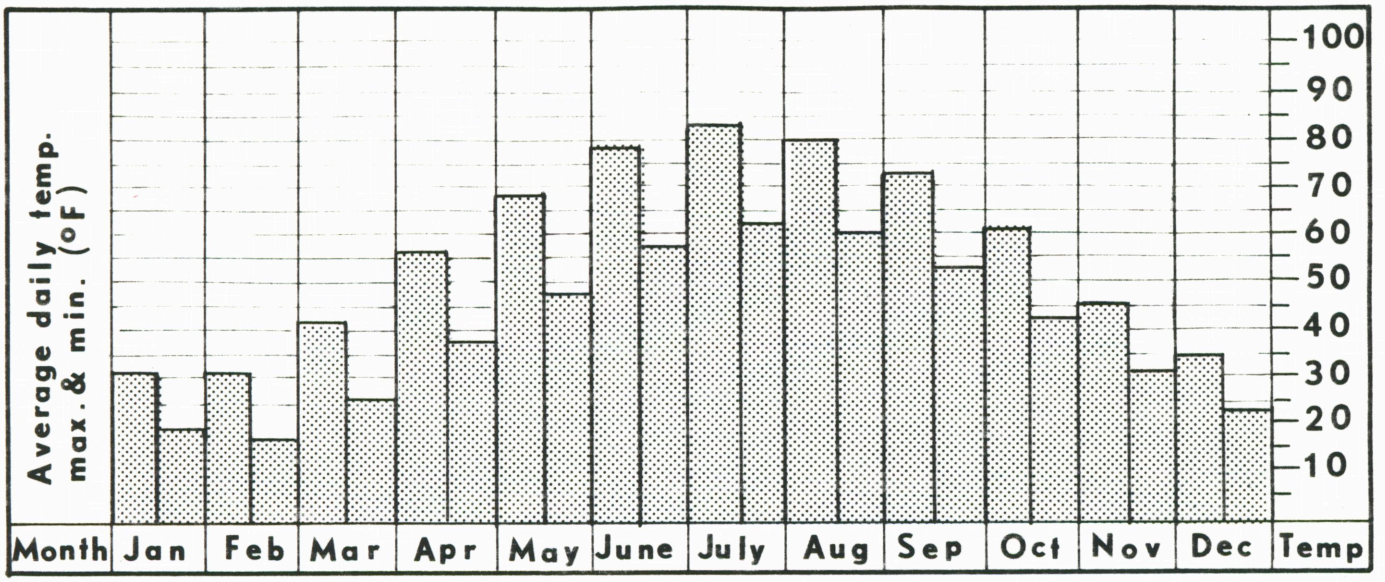
Since the river and other natural elements are such powerful spatial organizers, provisions must be made to integrate trees, gardens, and park spaces which re-establish continuity to the natural place in which the residents and architecture of Belding exist. These elements will aid in creating a more intimate, humane scale. Spaces must be created where the pedestrian/user can linger and participate in the environment. Paths and street façades will require lighting, seating, plantings, and other scale devices which encourage community interaction in the complex.

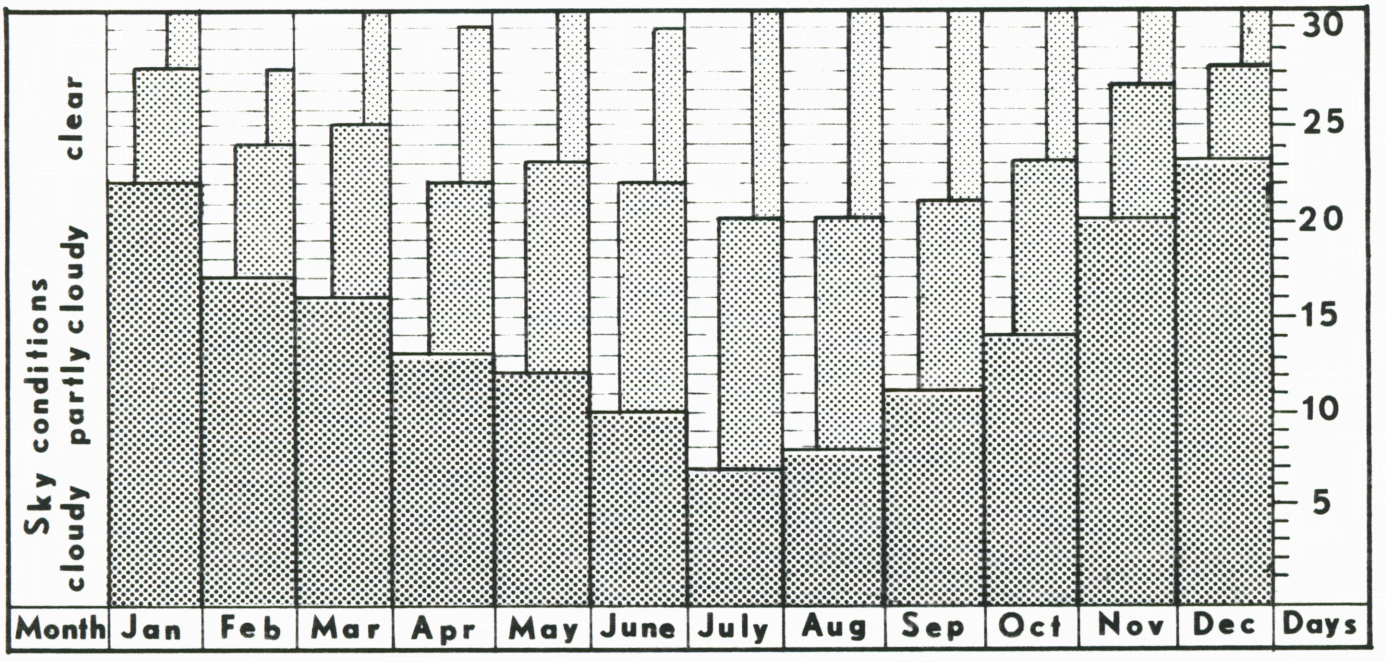
The climate in Belding and the region itself is very diverse. The organization of buildings must respond to the prevalent winds, and spaces must be provided for shelter from the wind, the rain, and wet snow. However, these shelters should not exclude entirely the natural phenomena. Warm spring and summer rains can be an enjoyable experience. People in Belding live with the environment. Generally, it is not so harsh as to require total exclusion of the elements.

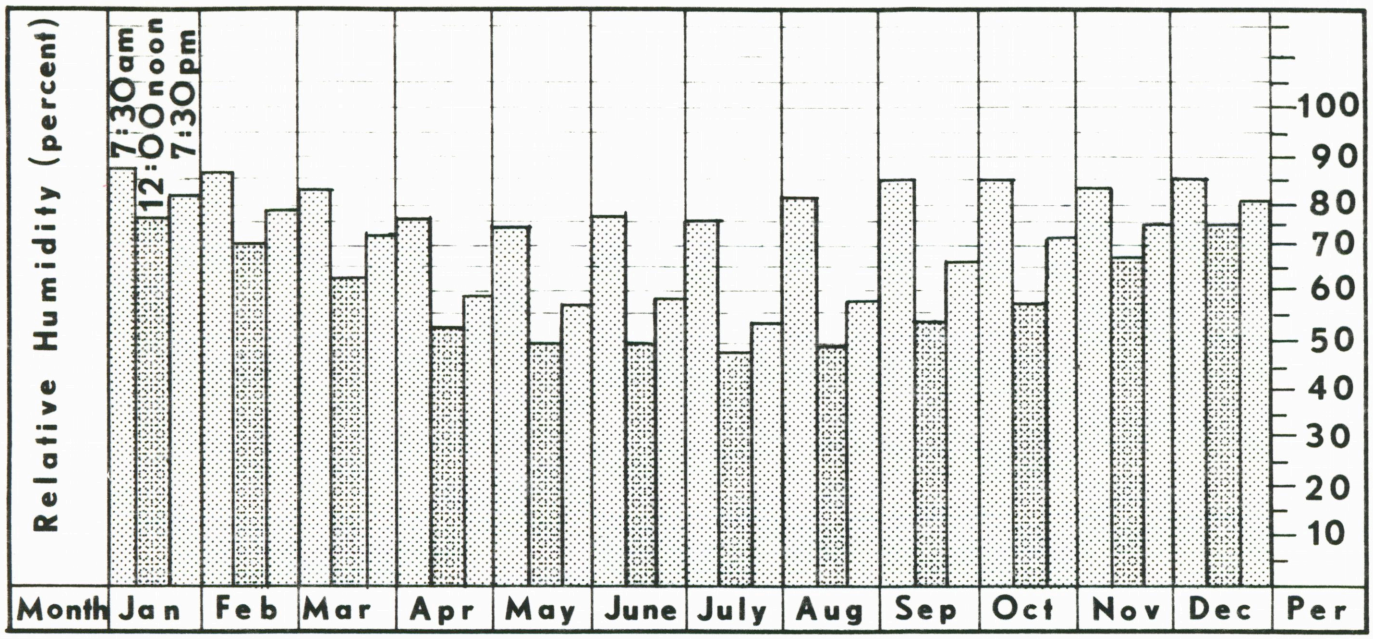
Sunlight is a valuable commodity in Michigan; structures and spaces should respond to and capture the sun, and shadows should be minimized. Activity spaces must be located to optimize sunny areas. Appropriate trees can provide necessary shade during hot summer months and can warm the autumn days with brilliant color. Light colored materials will further enhance the effects of natural light during cloudy or hazy conditions.

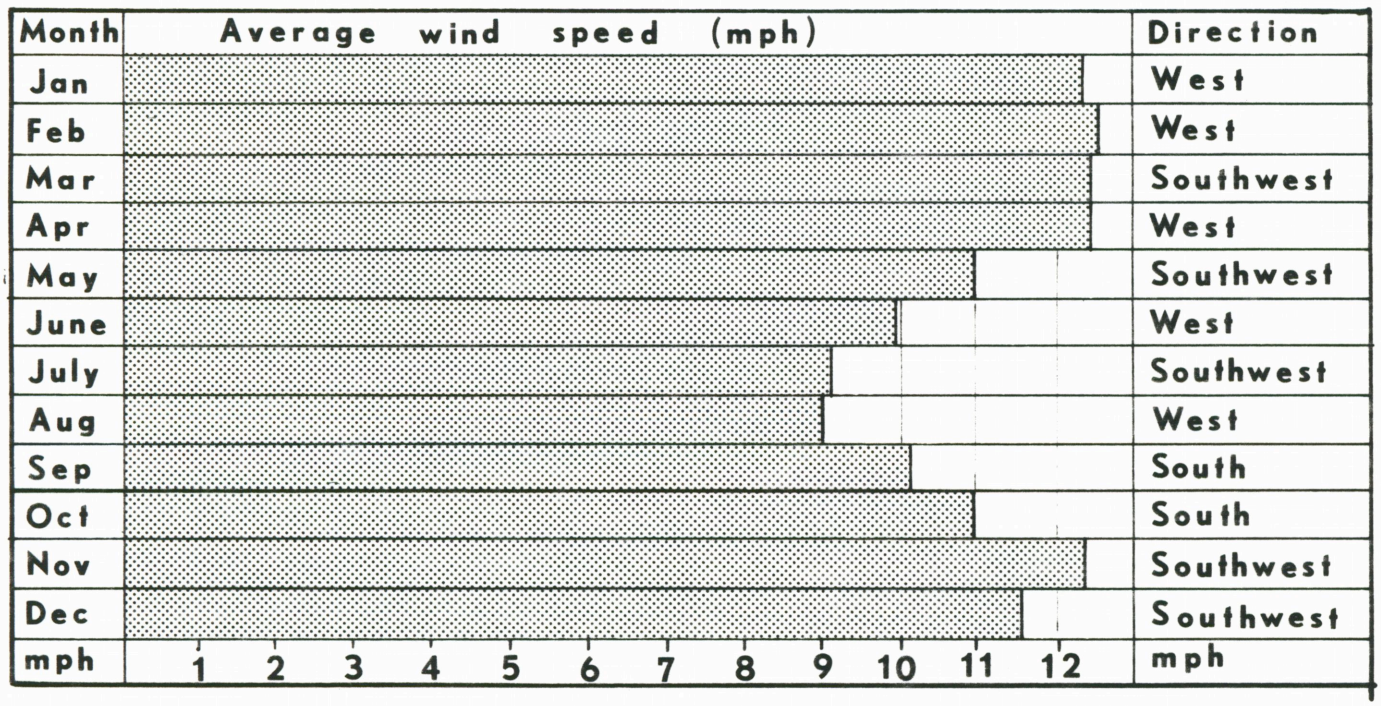

Precipitation (inches)
Monthly average
3.5
3.0
2.5
2.0
1.5
1.0
0.5
Month
Jan
Feb
Mar
Apr
May
June
July
Aug
Sep
Oct
Nov
Dec
Inch


Snowfall (inches)
Monthly average
14
12
10
8
6
4
2
Month
Jan
Feb
Mar
Apr
May
June
July
Aug
Sep
Oct
Nov
Dec
Inch


Average daily temp.
max. & min. (°F)
100
90
80
70
60
50
40
30
20
10
Month
Jan
Feb
Mar
Apr
May
June
July
Aug
Sep
Oct
Nov
Dec
Temp


Sky conditions
cloudy partly cloudy clear
30
25
20
15
10
5
Month
Jan
Feb
Mar
Apr
May
June
July
Aug
Sep
Oct
Nov
Dec
Days

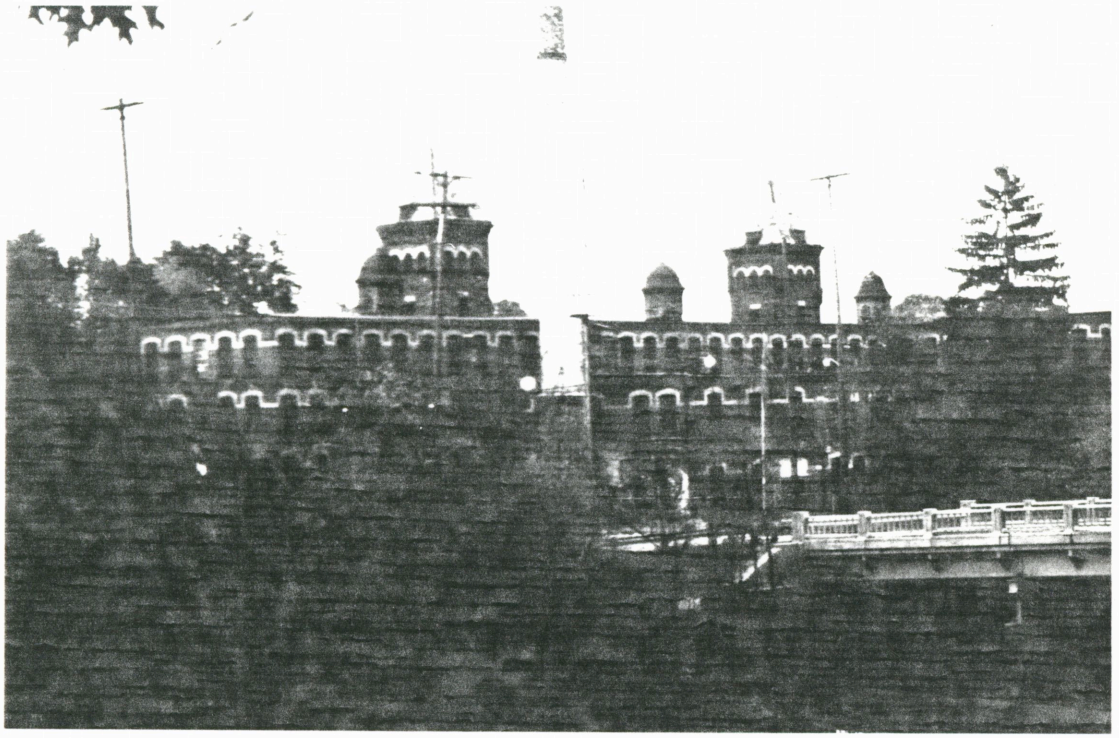

Relative Humidity (percent)
7:30am
12:00noon
7:30pm
100
90
80
70
60
50
40
30
20
10
Month
Jan
Feb
Mar
Apr
May
June
July
Aug
Sep
Oct
Nov
Dec
Per

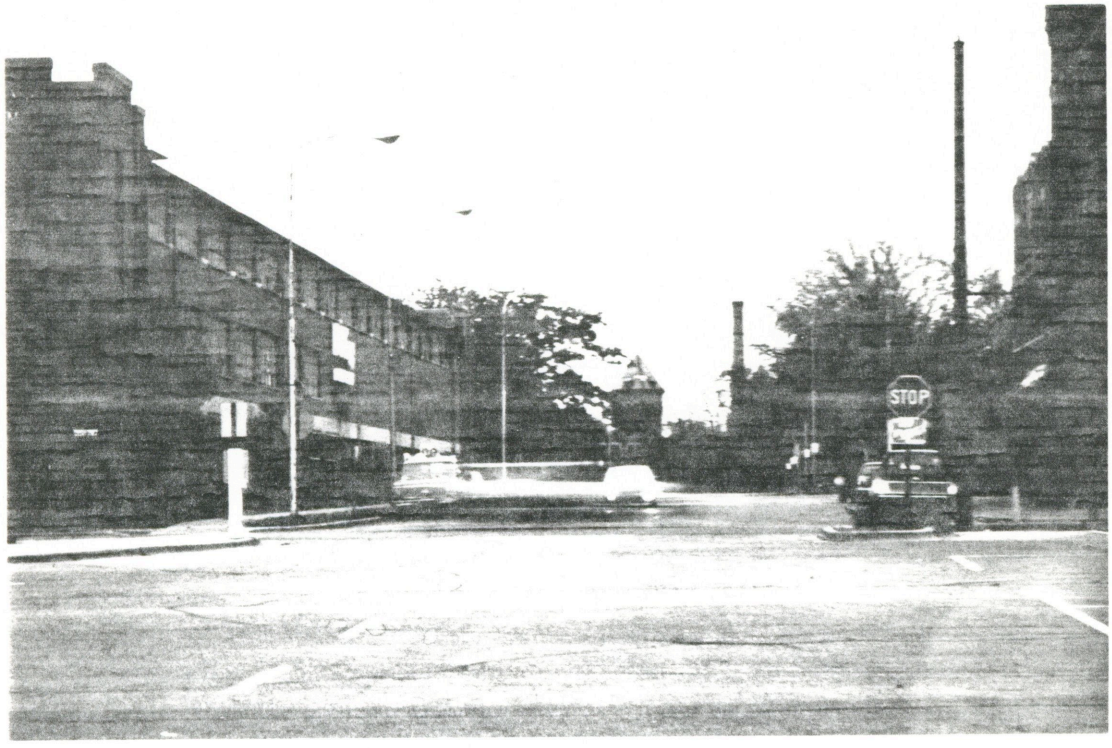

Month
Average wind speed (mph)
Direction
Jan
West
Feb
West
Mar
Southwest
Apr
West
May
Southwest
June
West
July
Southwest
Aug
West
Sep
South
Oct
South
Nov
Southwest
Dec
Southwest
mph
1
2
3
4
5
6
7
8
9
10
11
12
mph





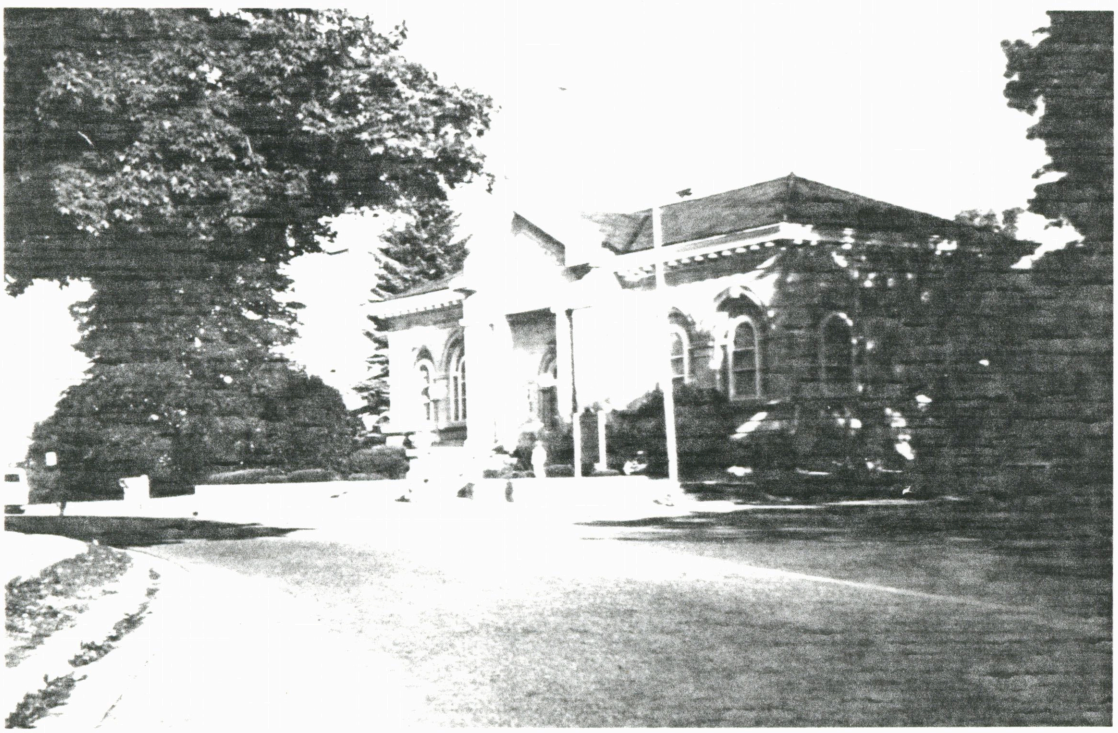





STOP


FURNITURE USA


BOOK
RETURN








Covered Village
MERRY CHRISTMAS
THANKS FOR
YOUR PATRONAGE



Bibliography

The following sources were consulted in developing this paper:

A Geographic Study of the Belding Silk Industry. Love, Margaret-Mary, 1940, Detroit, Michigan A Thesis. Wayne University - Master of Arts in the Department of Geography.

At Work in Belding: Michigan's Silk Mill City. Havira, Barbara. Michigan History, Volume 65, Number 3, May/June, 1981.

History of Ionia County, Michigan. E. E. Branch. Indianapolis, 1916. Her people, industries, and institutions.

Souvenir: City of Belding. Belding Bros. Co. 1900. With special reference to the interests of Belding Bros. & Co.

Belding Banner News and other literature. On file at Alvah N. Belding Library. Compiled over the years by librarian, historian, and storyteller Helen Cusack and librarian Jackie Badersneider.

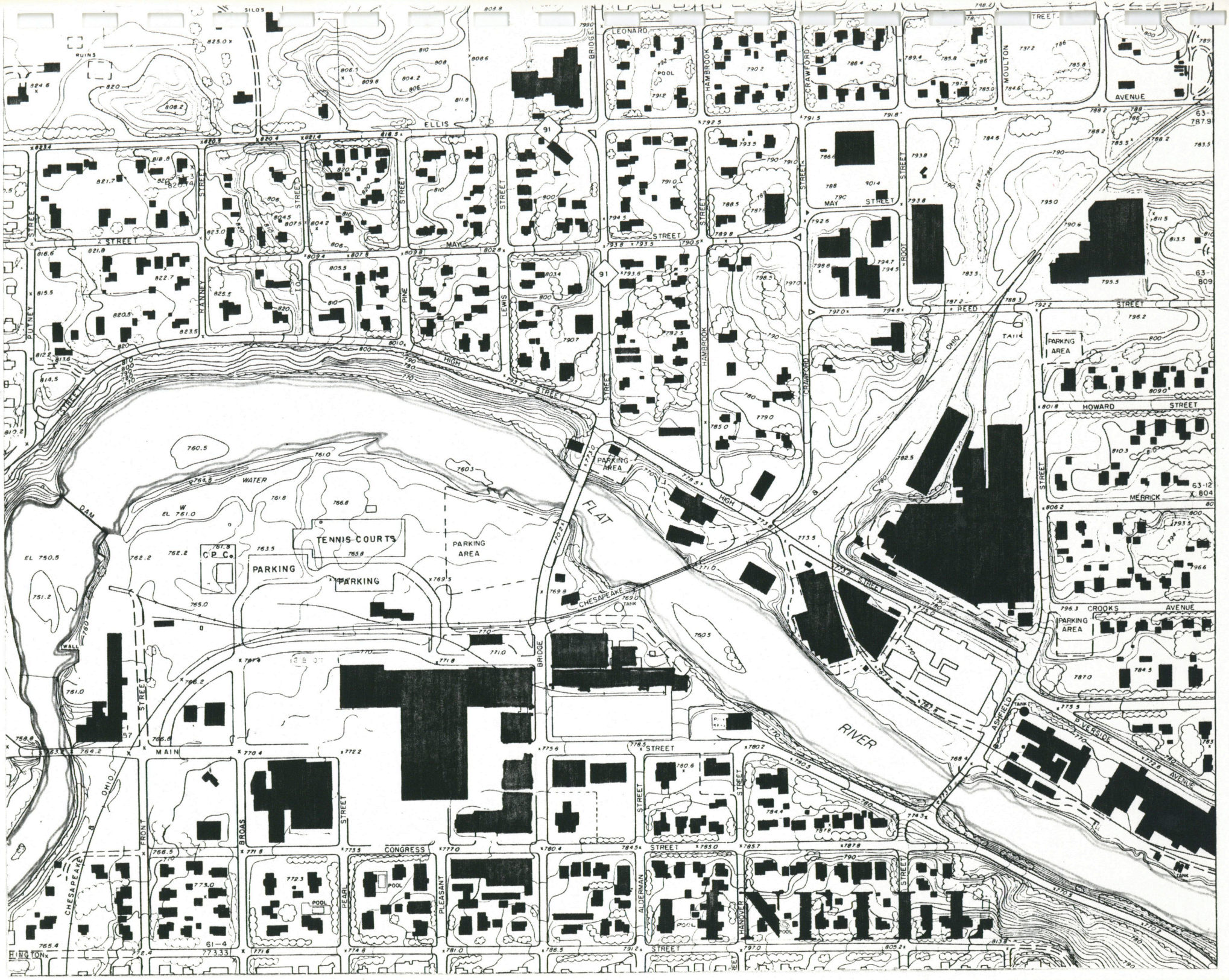
Bibliography

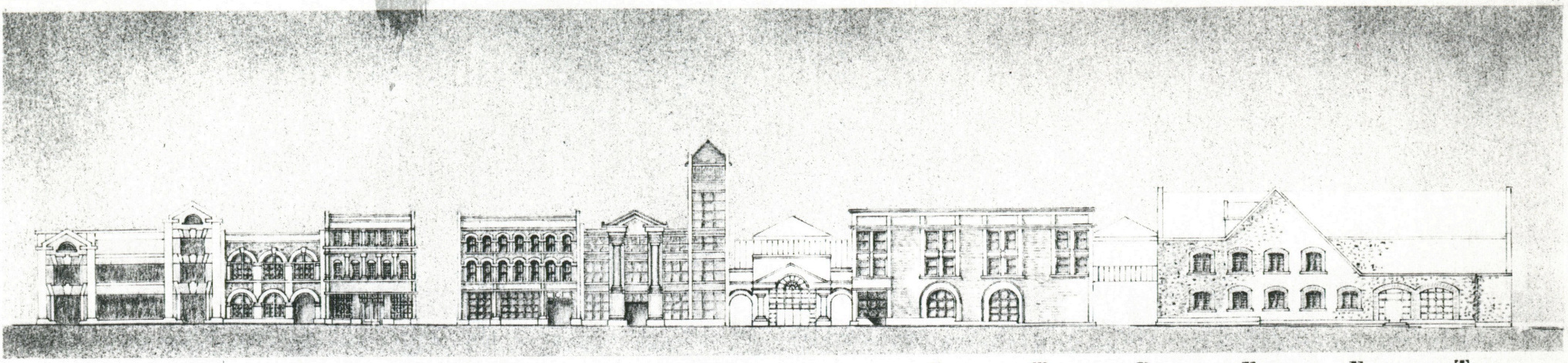
Barker, James F. *The Small Town as an Art Object.* Research supported by a grant from National Endowment for the Arts. 1975.

Lynch, Kevin. *The Image of the City.* Cambridge, Mass., and London, England. MIT Press. 1960.

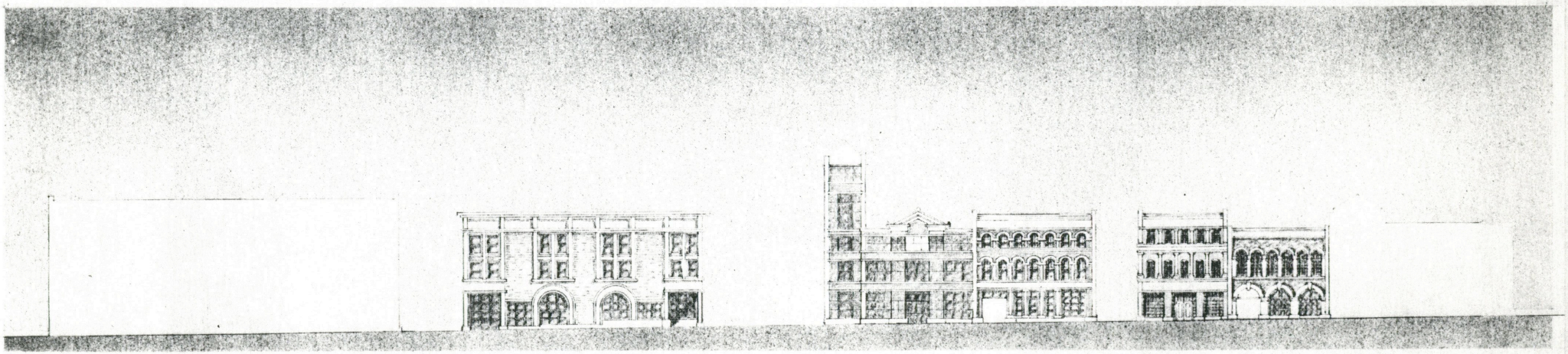
Norberg-Schultz, Christian. *Genius Loci Towards a Phenomenology of Architecture.* New York, New York. Rizzoli International Publications, Inc., 1980.

Trancik, Roger. *Finding Lost Space Theories of Urban Design.* New York, New York. Van Nostrand Reinhold Company Inc., 1986.

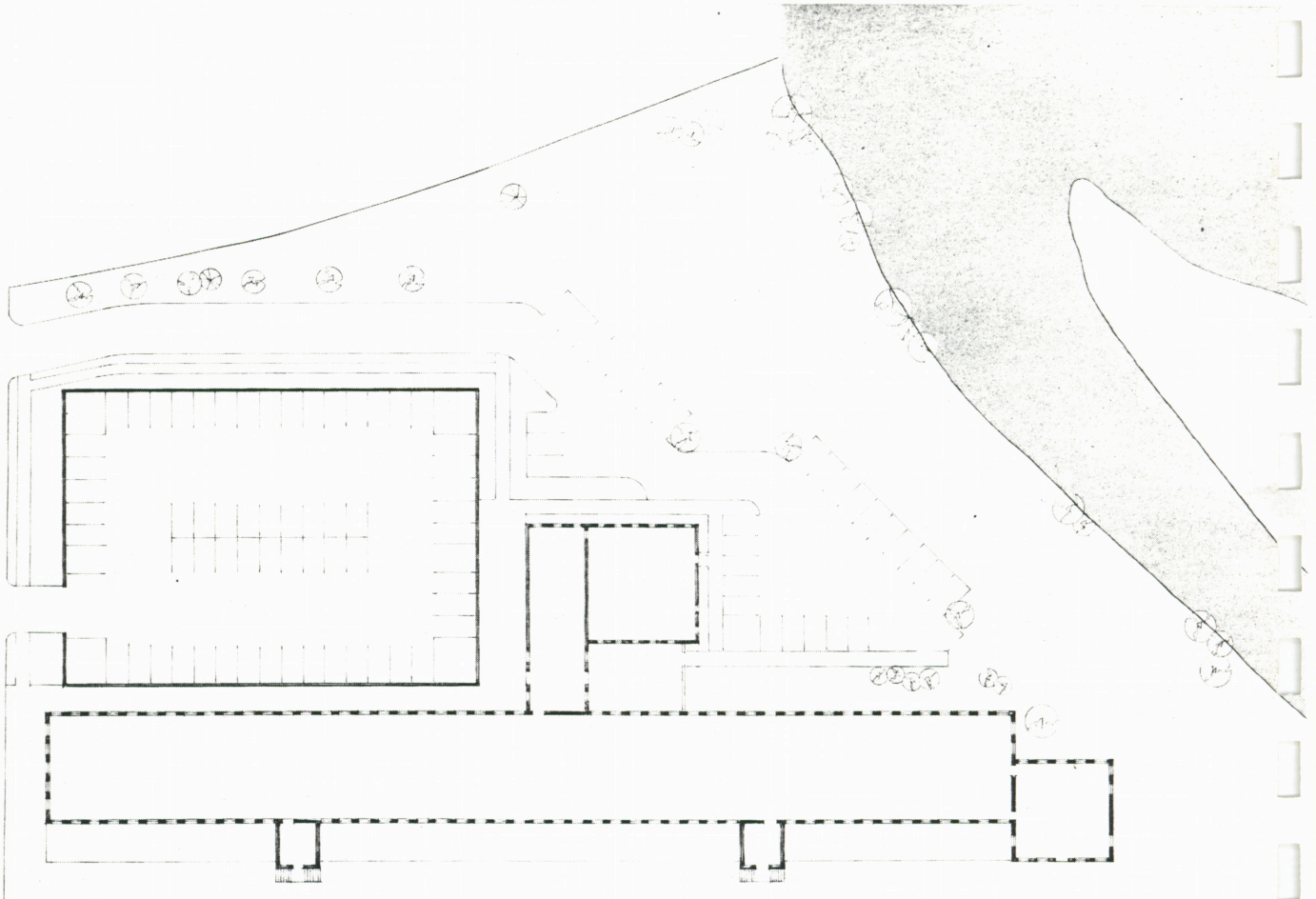

ELLIS
LEONARD
HAMBROOK
CRAWFORD
MOULTON
AVENUE
STREET
MAY
REED
HOWARD
MERRICK
CROOKS
HIGH
FLAT
WATER
DAM
TENNIS COURTS
PARKING
PARKING AREA
C.P.C.
CHESAPEAKE
OHIO
TANK
BRIDGE
RIVER
MAIN
FRONT
BROAS
PEARL
PLEASANT
CONGRESS
ALDERMAN
HANOVER
ASHFIELD
RIVERSIDE
POOL
WALL
RUINS
SILOS
TAUK



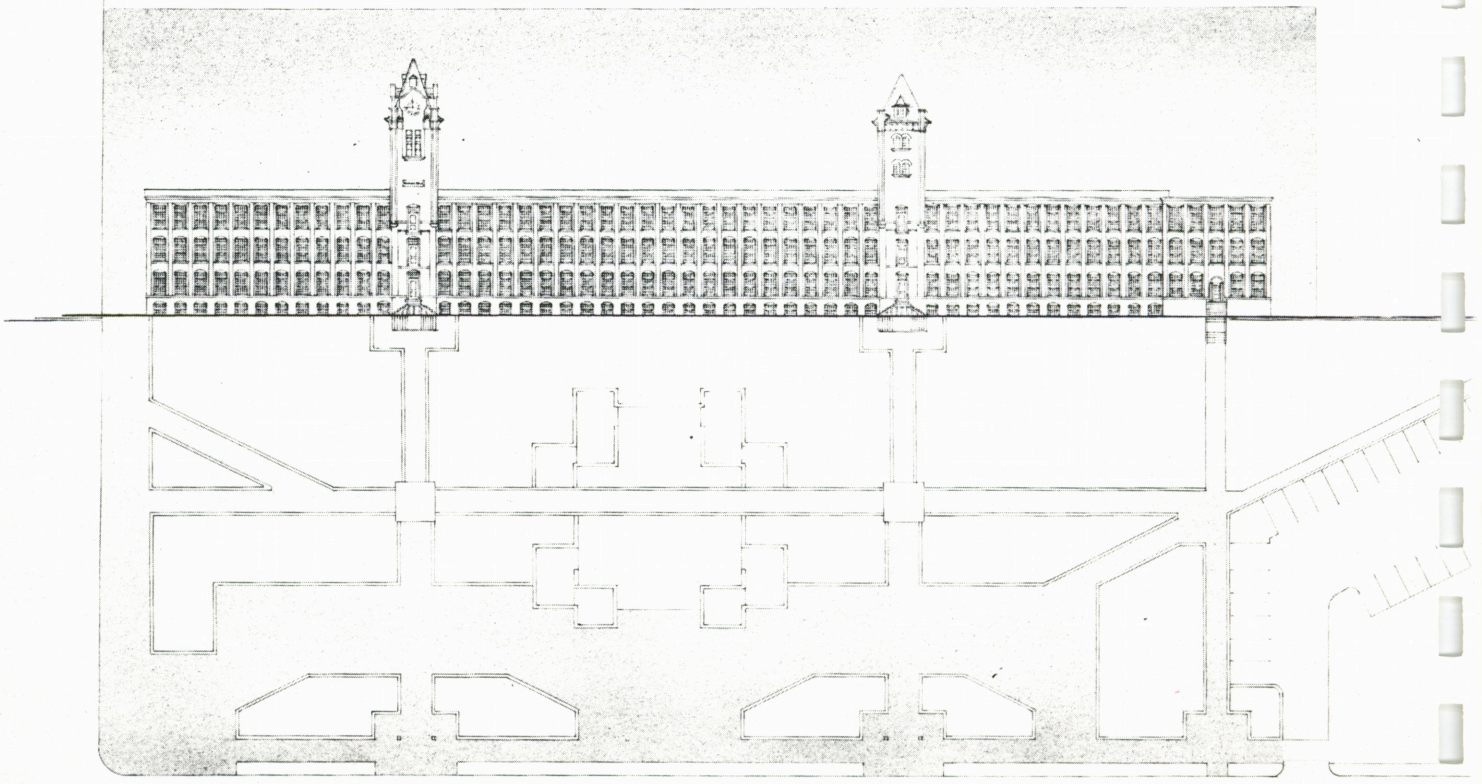
B R I D G E S T R E E T



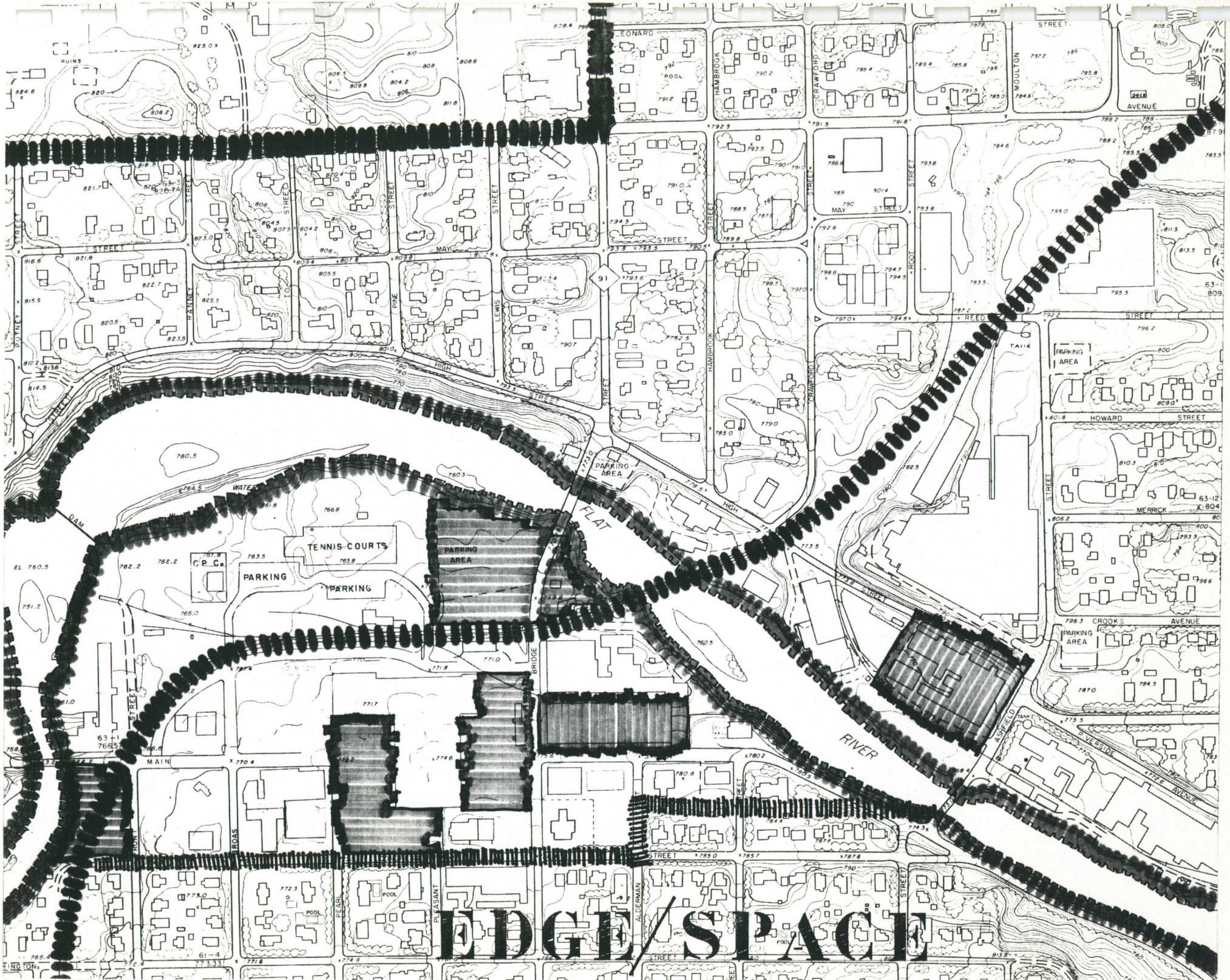
I N N E R C O U R T

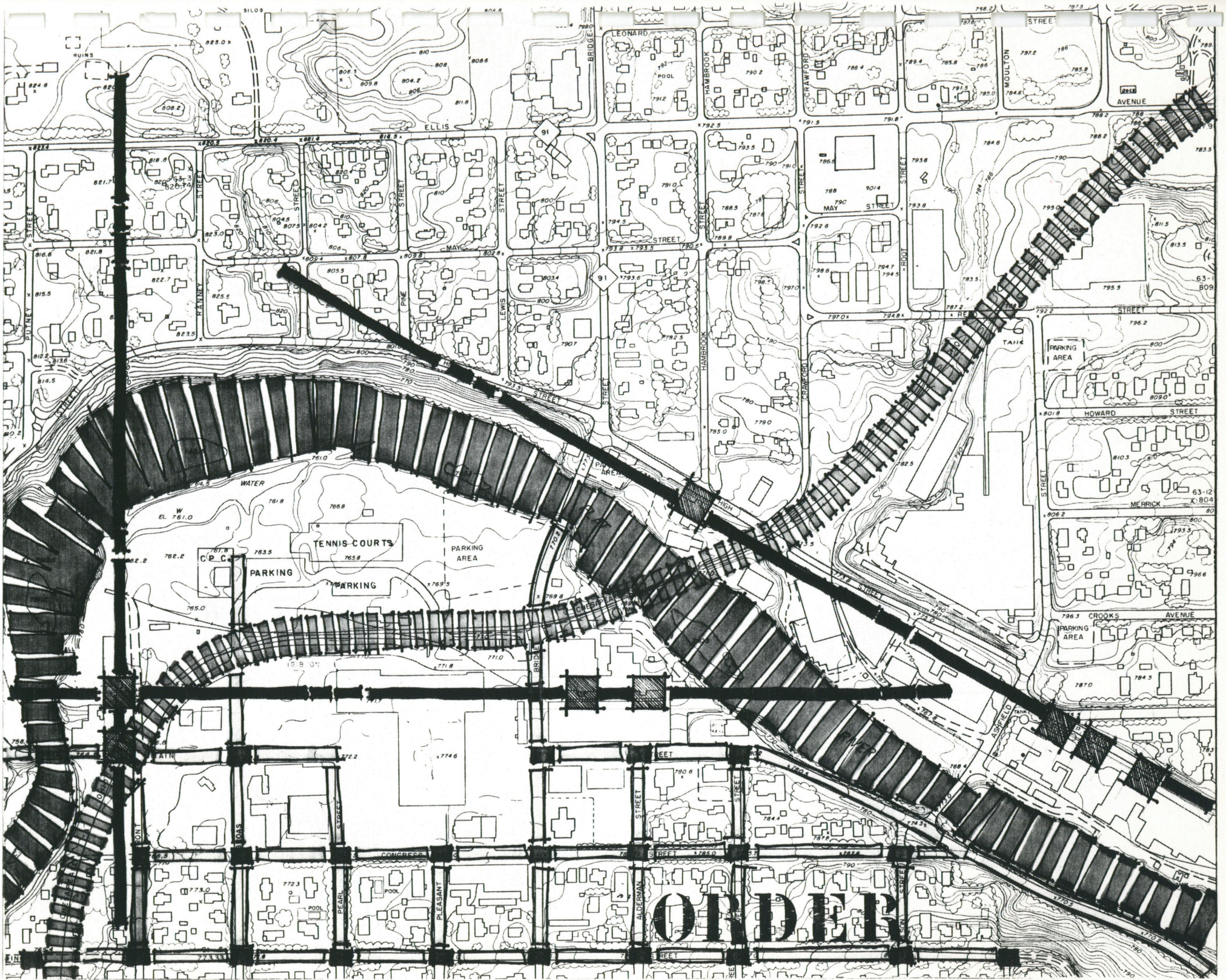


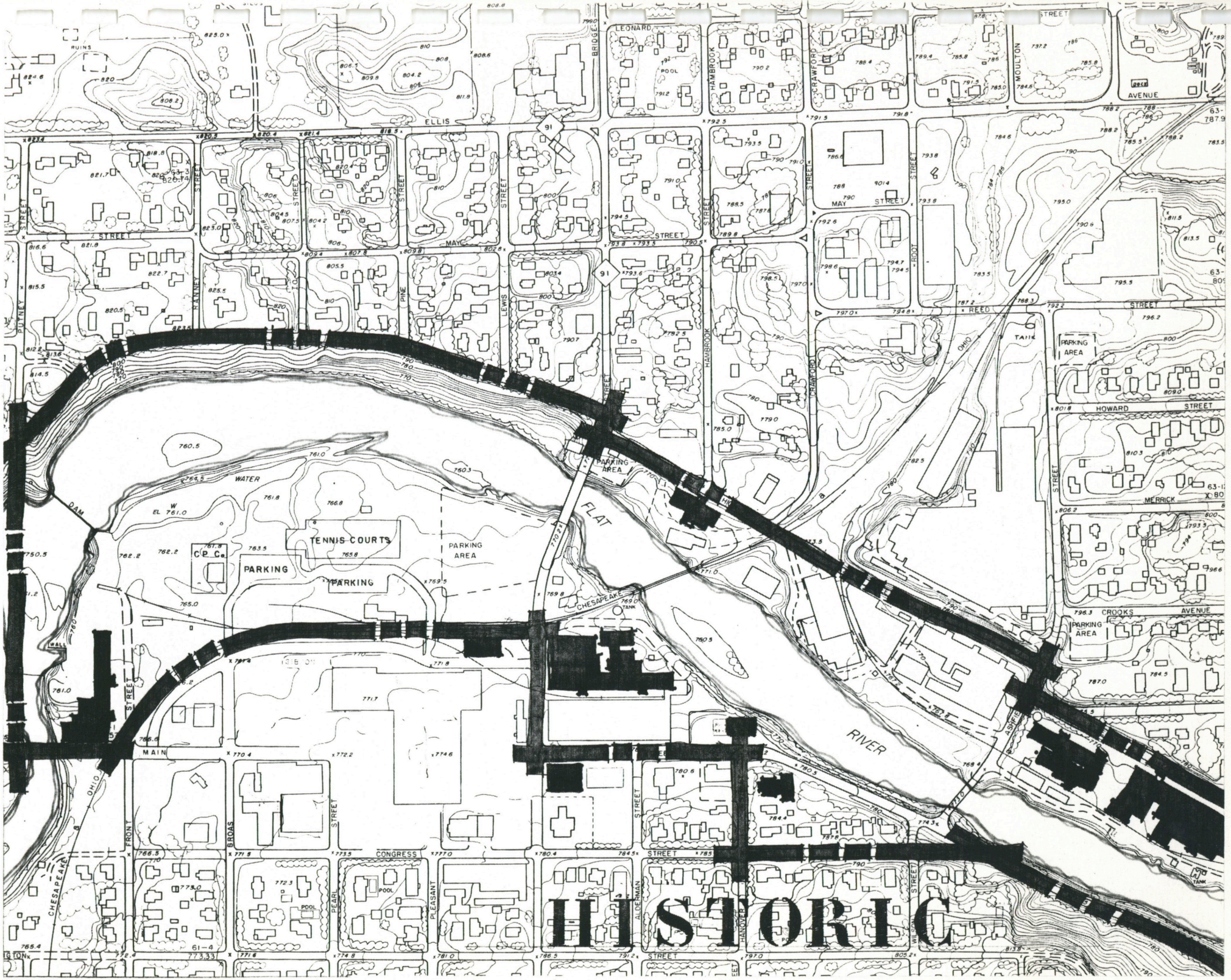
THE WHITE MILL



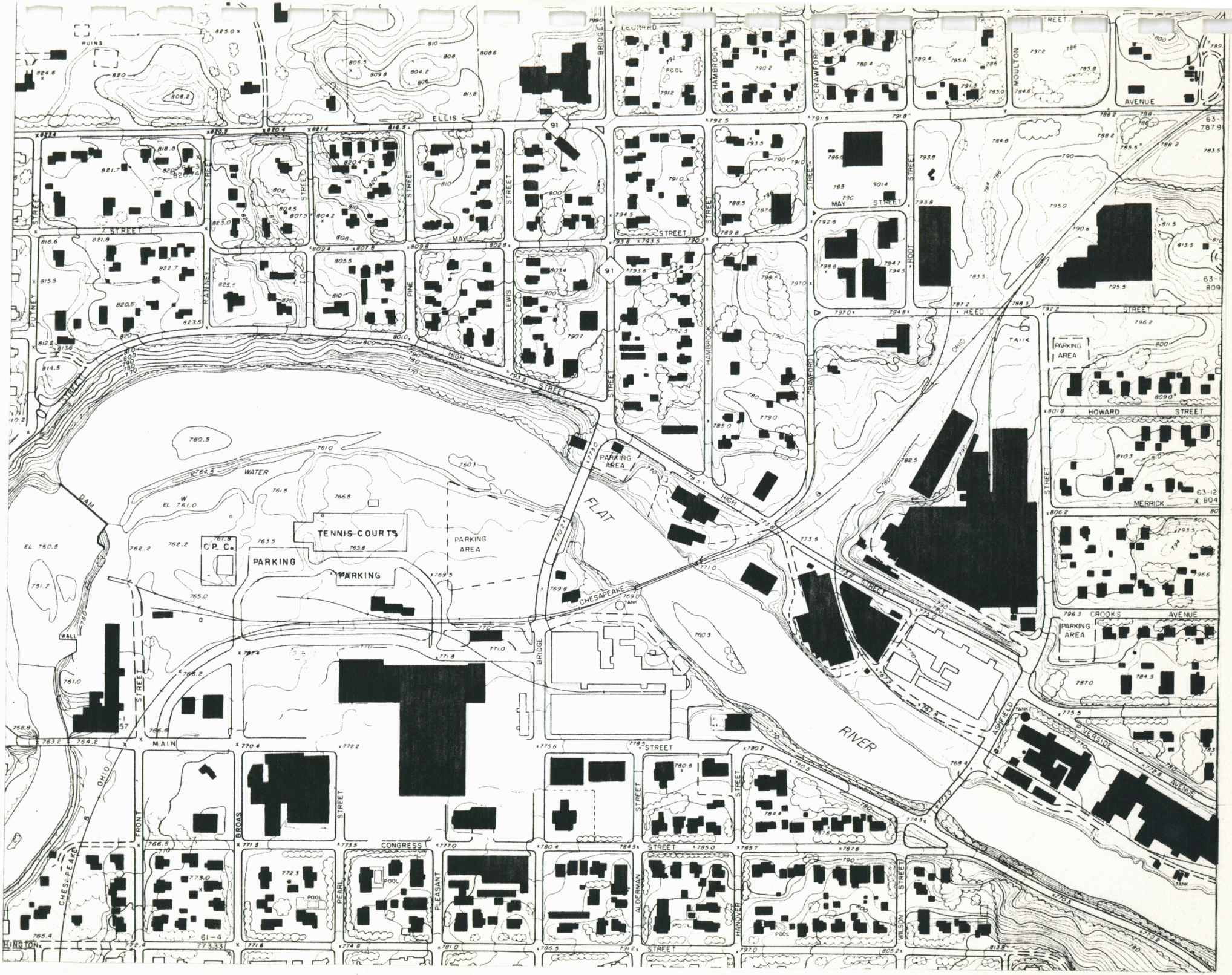
MAIN STREET

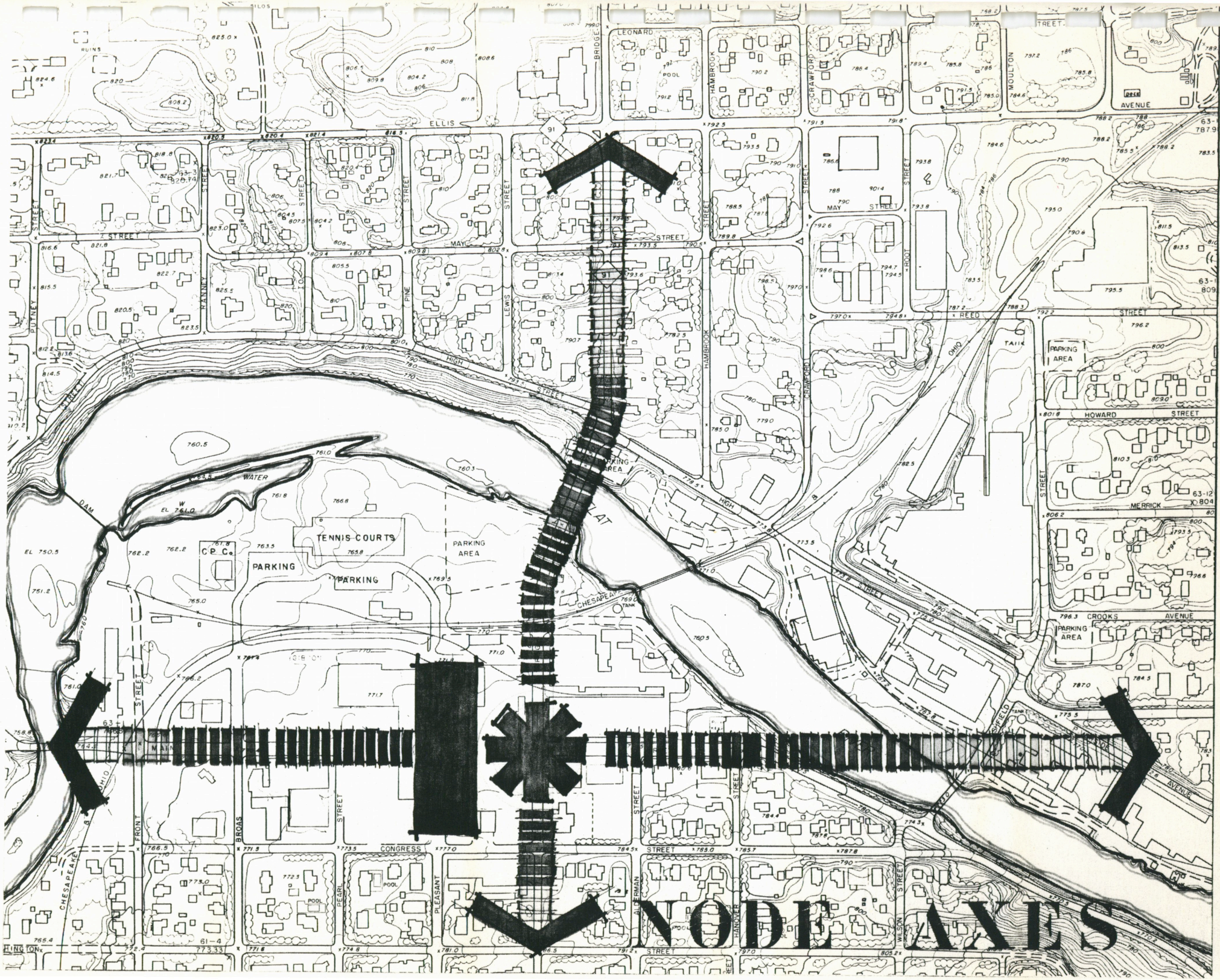

EDGE/SPACE
RIVER
FLAT
TENNIS COURTS
PARKING AREA
PARKING
LEONARD
HAMBROOK
CRAWFORD
MOULTON
AVENUE
MAY STREET
REED STREET
HOWARD STREET
MERRICK
CROOKS AVENUE
RIVERSIDE AVENUE
MAIN
HIGH STREET
DAM
BRIDGE
PINE
LEWIS
PUTNEY
HANNEY
ROOT
ASHFIELD
ALDERMAN
PLEASANT
PEARL
POOL
TANK
WATER


ELLIS
MAY
STREET
LEONARD
HAMBROOK
CRAWFORD
MOULTON
AVENUE
HOWARD
MERRICK
CROOKS
PARKING AREA
TENNIS COURTS
PARKING
WATER
RIVER
BRIDGE
ASHFIELD
PEARL
PLEASANT
ALDERMAN
CONGRESS
POOL
ORDER


ELLIS
MAY
REED
HOWARD
MERRICK
CROOKS
AVENUE
STREET
PARKING AREA
TENNIS COURTS
PARKING
FLAT
WATER
DAM
RIVER
MAIN
CONGRESS
CHESAPEAKE
OHIO
TANK
POOL
LEONARD
HAMBROOK
CRAWFORD
MOULTON
BRIDGE
PINE
LEWIS
ROOT
PEARL
PLEASANT
ALDERMAN
HANOVER
FRONT
BROAS
ASHFIELD
PUTNEY
HANNEY
W EL 761.0
C P Co.

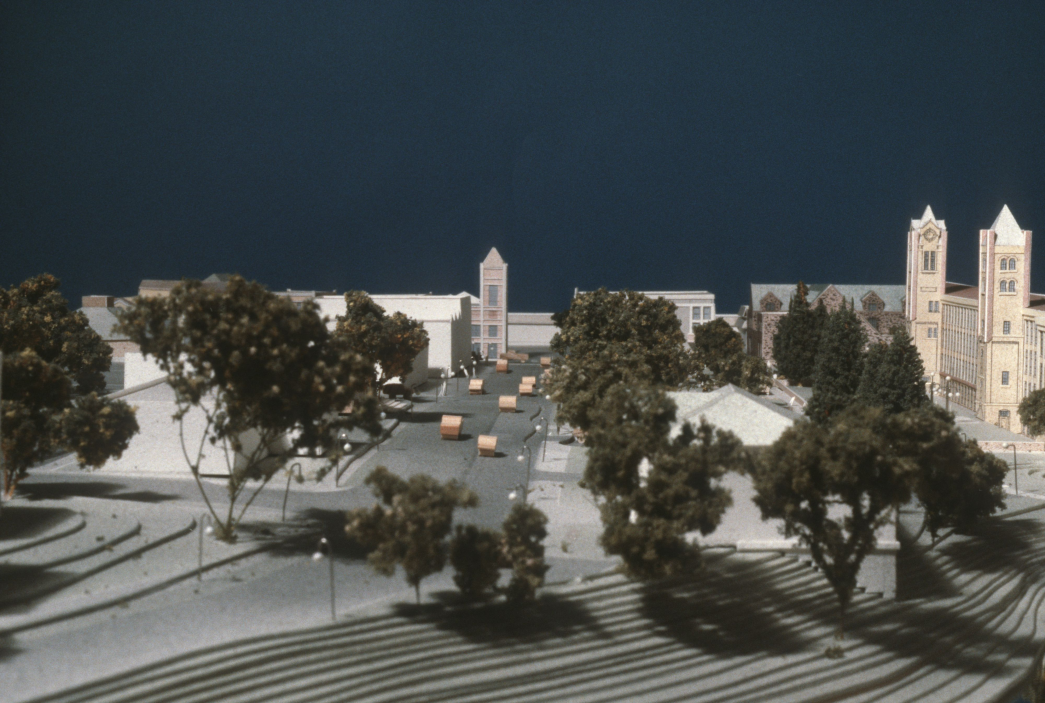
HISTORIC


RUINS
ELLIS STREET
BRIDGE STREET
LEONARD
POOL
HAMBROOK
CRAWFORD
WOULTON
AVENUE
MAY STREET
REED STREET
HOWARD STREET
MERRICK
CROOKS AVENUE
PARKING AREA
OHIO TANK
PUTNEY
RAINEY
PINE
LEWIS
HIGH STREET
FLAT
WATER
DAM
EL 761.0
EL 750.5
TENNIS COURTS
C.P. Co.
PARKING
CHESAPEAKE
TANK
WALL
FRONT STREET
MAIN
BROAS
CONGRESS
PEARL
PLEASANT
ALDERMAN
HANOVER
WILSON
ASHFIELD
RIVER
AVENUE
63-12
X 804
63-809
61-4


NODE AXES

























DATE DUE

New Book 11/8/89
INTERLIBRARY LOAN

Demco, Inc. 38-293

MONTANA STATE UNIVERSITY LIBRARIES
3 1762 10060262 0