

DESIGN FOR A CITY COMMERCIAL BLOCK

by

SANDRA CUTTING AUCHINCLOSS
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Signature of Author

Sandra Cutting Auchincloss
Department of Architecture
May, 1974

Certified by

Imre Halasz
Professor of Architecture
Thesis Supervisor

Accepted by

Chairman, Departmental Committee
on Graduate Students



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abstract

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This thesis deals with a classic New England urban situation: a delapidated mill town badly in need of rehabilitation. Winooski, a town of 7,300 in northwestern Vermont, is such a town. It was designated as a part of the federal Model Cities Program in 1968 and the central city has since been identified for urban renewal funding. My thesis offers the program formulation and design for that portion of the Urban Renewal Area set aside for commercial use.

Thesis Supervisor: Imre Halasz

Title: Professor of Architecture

introduction

Winooski is located in northwestern Vermont, immediately adjacent to Burlington which is the state's largest and fastest growing metropolitan area. The Winooski River which runs into Lake Champlain separates Winooski from Burlington. Winooski lies on the busy state road, Route 7, which runs through Burlington and Winooski north to St. Albans. The main intersection in Winooski, and a very important regional node, is where Route 15 crosses Route 7 and continues east to Essex Junction, the home of an enormous IBM plant and most of its employees. Interstate highway I-89 bypasses Winooski on its way north to Montreal, another major influence on the town (See map 1).

Formerly an active industrial center, Winooski is now home for 7,300 people. Their town, shoulder to shoulder with Burlington - the booming capital of booming Chittenden County - is barraged by traffic travelling major routes. Winooski, surrounded by activity, is reaping none of its benefits and all of its blights.

It is no wonder that Winooski's main problem is one of image. The city was one of the first settled in Vermont and contains many old and deteriorating buildings, among them the mills and other industrial structures reminiscent of better days. Burlington only makes the town's economic debilitation and general physical decay more garish by comparison. Winooski has experienced economic deterioration since 1954 when it lost its original industrial backstay; that year

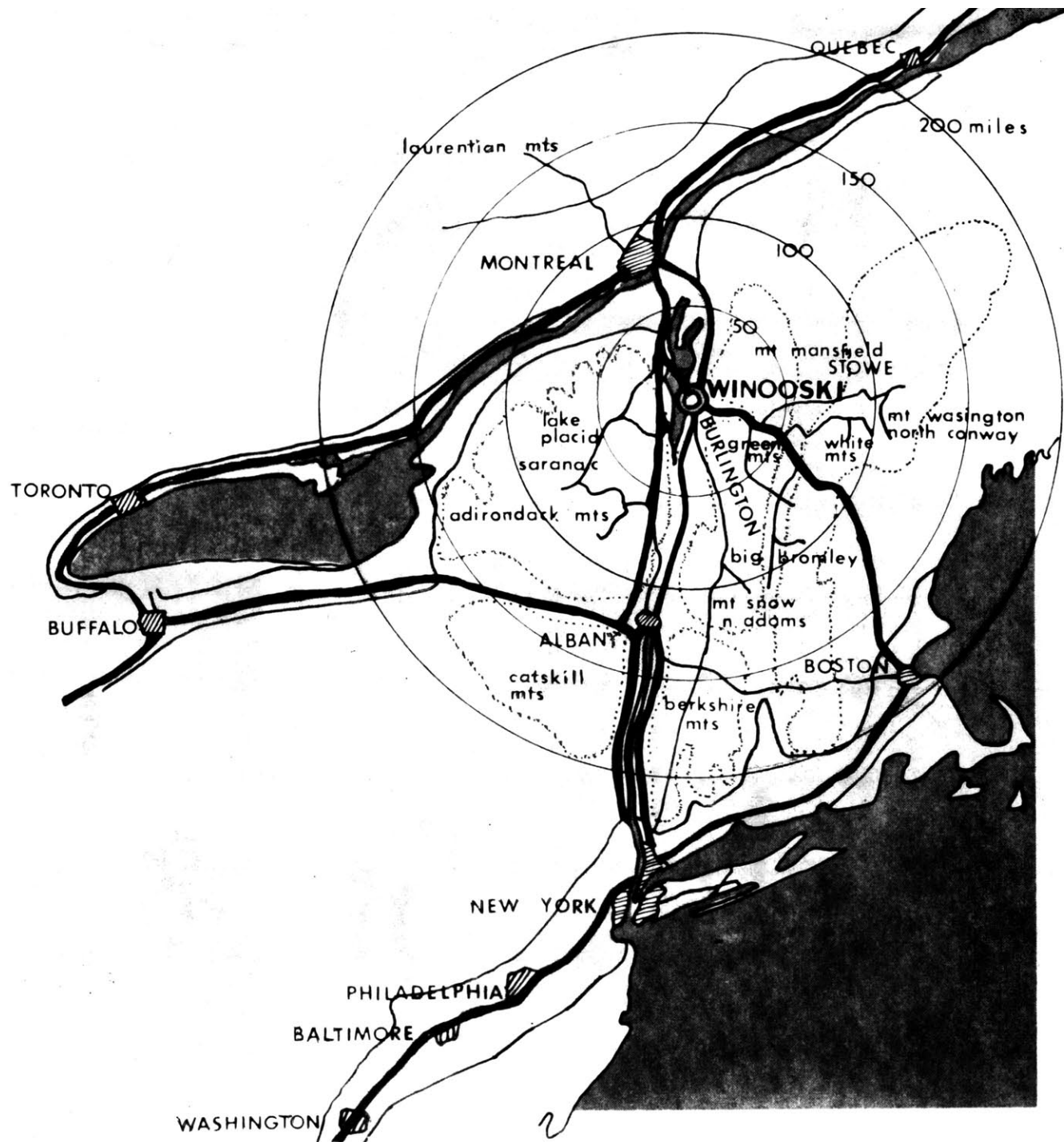
the mills closed and moved South. A poorly diversified tax base, poor housing, poor traffic circulation, poor land utilization, and poor residents are the main difficulties Winooski has to deal with. On the other side of the ledger, however, the town's great assets potentially outweigh its liabilities. One great strength is the personnel who have helped the town apply for Model Cities funds and who are implementing the urban renewal plans. Winooski's proximity to Burlington and an I-89 interchange is extremely advantageous for future economic development. The most promising asset of all, however, is the topography of Winooski and its position on the Winooski River with all its potential for recreational and pedestrian uses. The river is the city's most valuable asset. On the east of Main Street the land slopes down at a 6%-7% slope towards the South and the river. To the west of Main Street a steeper slope has rocky terraces which provide excellent views of the river and the falls to the west. The potential for a sensitive use of the topography along the riverfront is great, and presents a hopeful picture of what the redeveloped area could be (See map 2).

My basic optimistic assumption, and that of the Winooski Urban Renewal Agency, is that redevelopment of the Riverside Renewal Area can begin to create a new image for Winooski - one which will attract commercial activity and capture the tax dollar. This strategy seems to be the only way to initiate the process of renewal by which Winooski

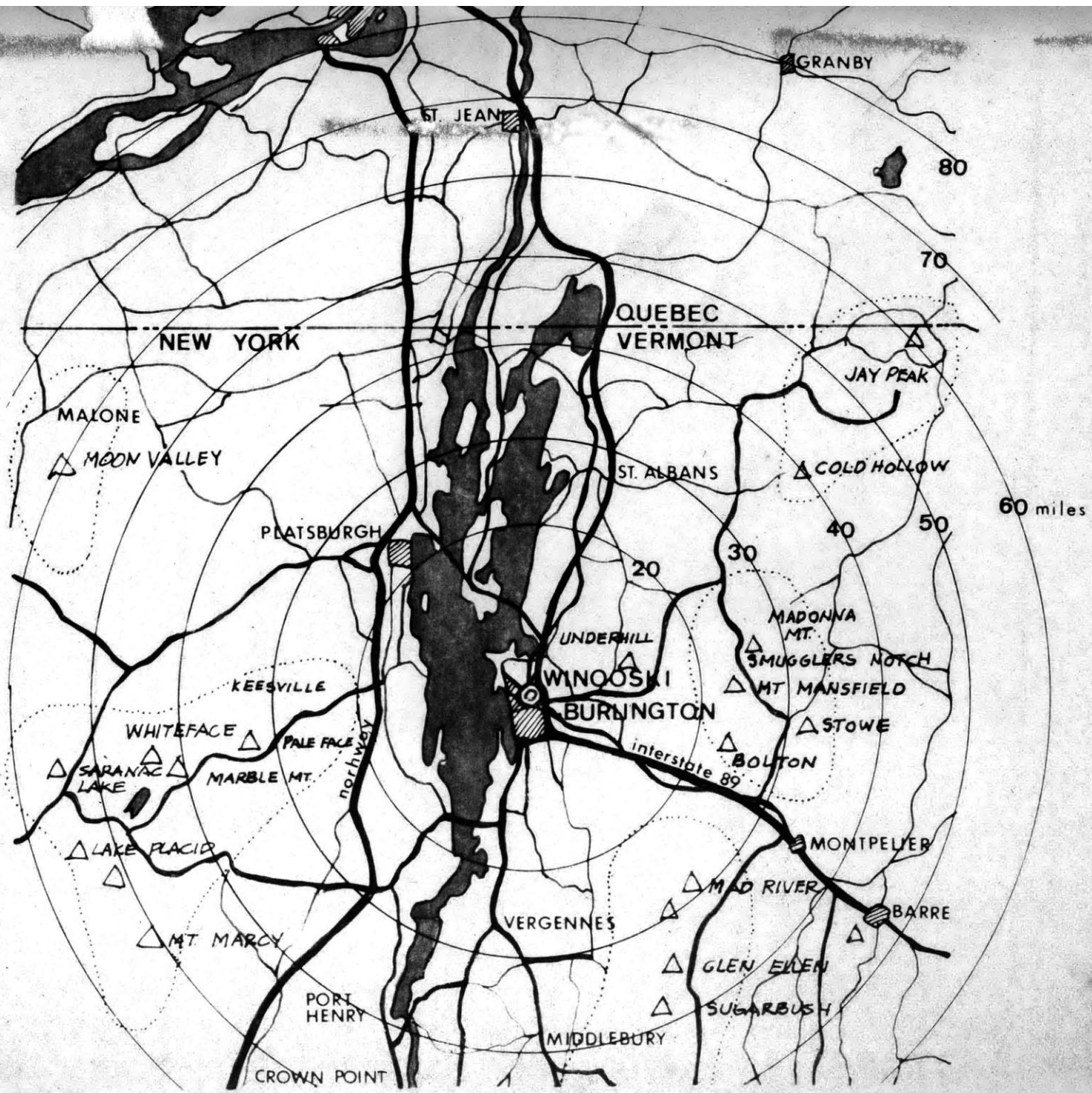
will gain a new measure of economic vitality and self-respect.

My thesis is a program and design for site "A", the 7.4 acre site bounded by E. Allen St. on the North, by S. Maine on the West, by Barlow St. on the East, and by East Canal on the South (see map 3) which is at the heart of the downtown area and has been ear-marked for commercial use. Analysis of the character of Winooski and its potential role in the region will give shape to the program. The design itself is an effort to use this program effectively to provide Winooski with an attractive commercial block of indigenous scale and character which will provide a built guideline for future development of site "A". It will also provide a design sufficiently responsive to what the town needs and expects.

Of course, the problem goes beyond a purely architectural solution. Physical change by itself is not, necessarily, the forerunner or stimulus of social change. The constellation of social and economic factors, both local and regional is not susceptible to change through architectural design alone. This thesis, therefore does not purport to be a solution to any large scale socio-economic problems. The design only seeks to bring economic and human vitality back to Winooski.

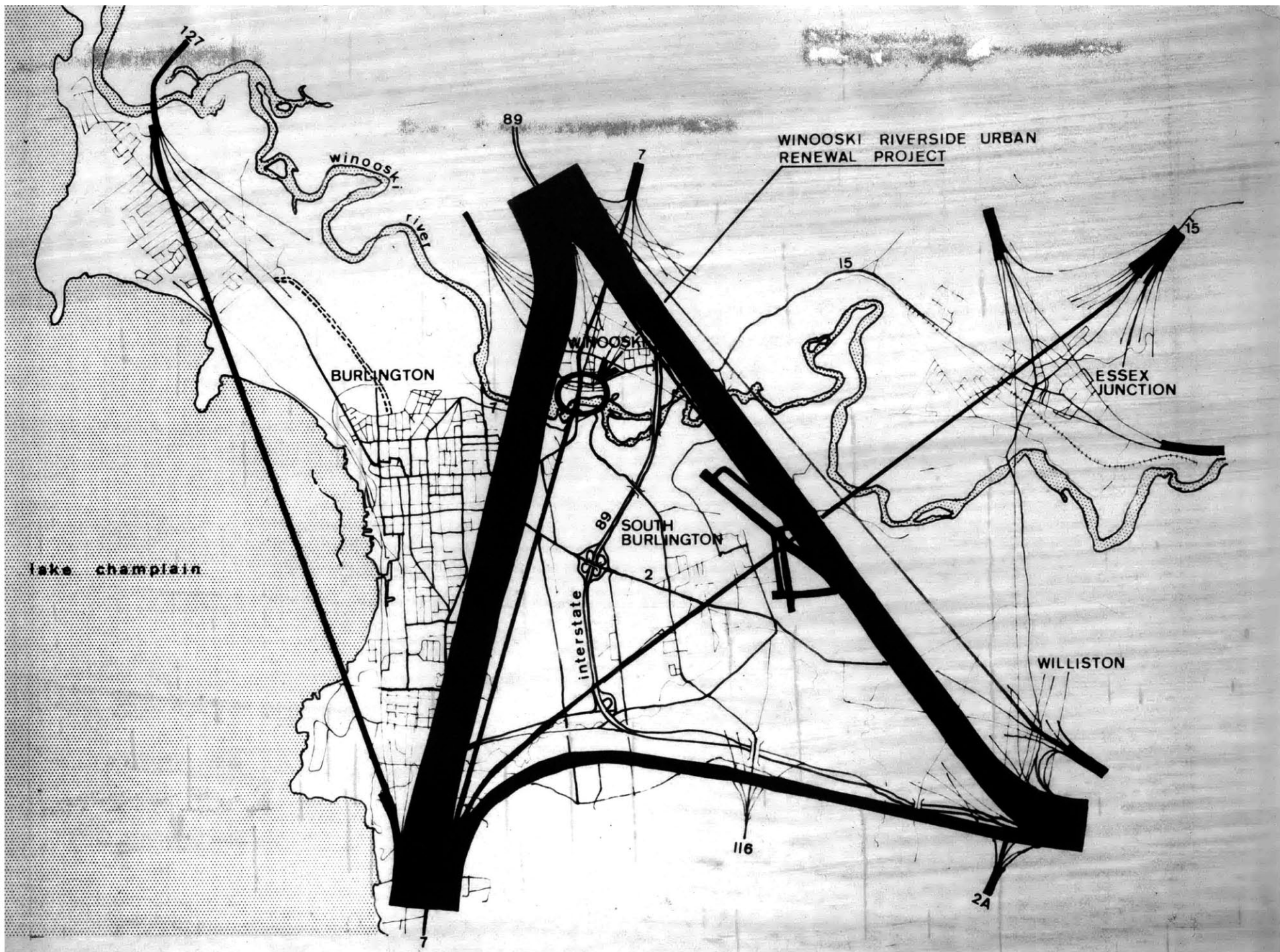


E **NORTHEAST REGION** 0 25 50 150 miles
 MAJOR CITIES DISTANCES RECREATION AREAS POP DENSITIES



LAKE CHAMPLAIN REGION





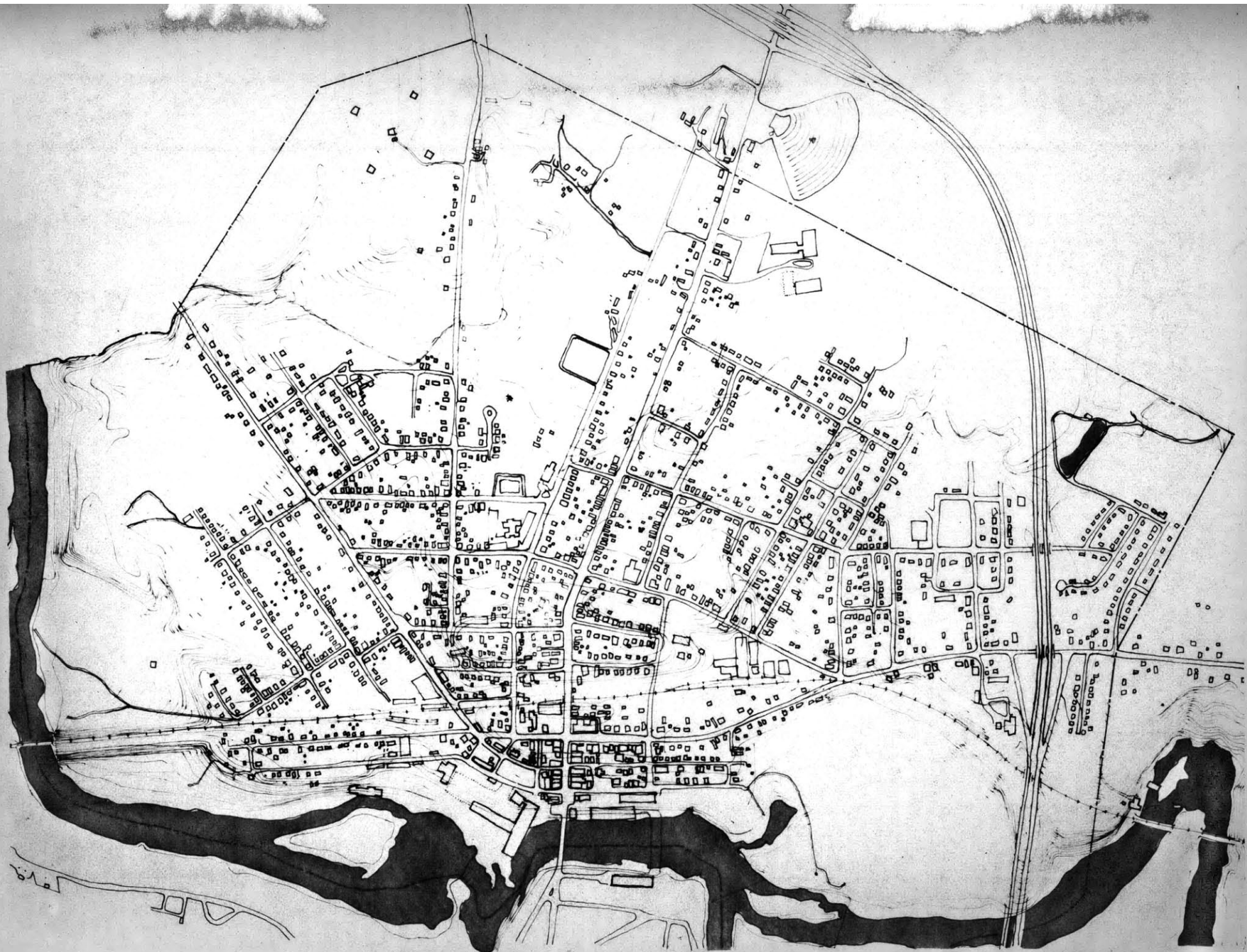
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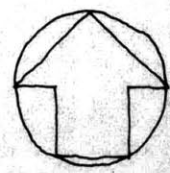
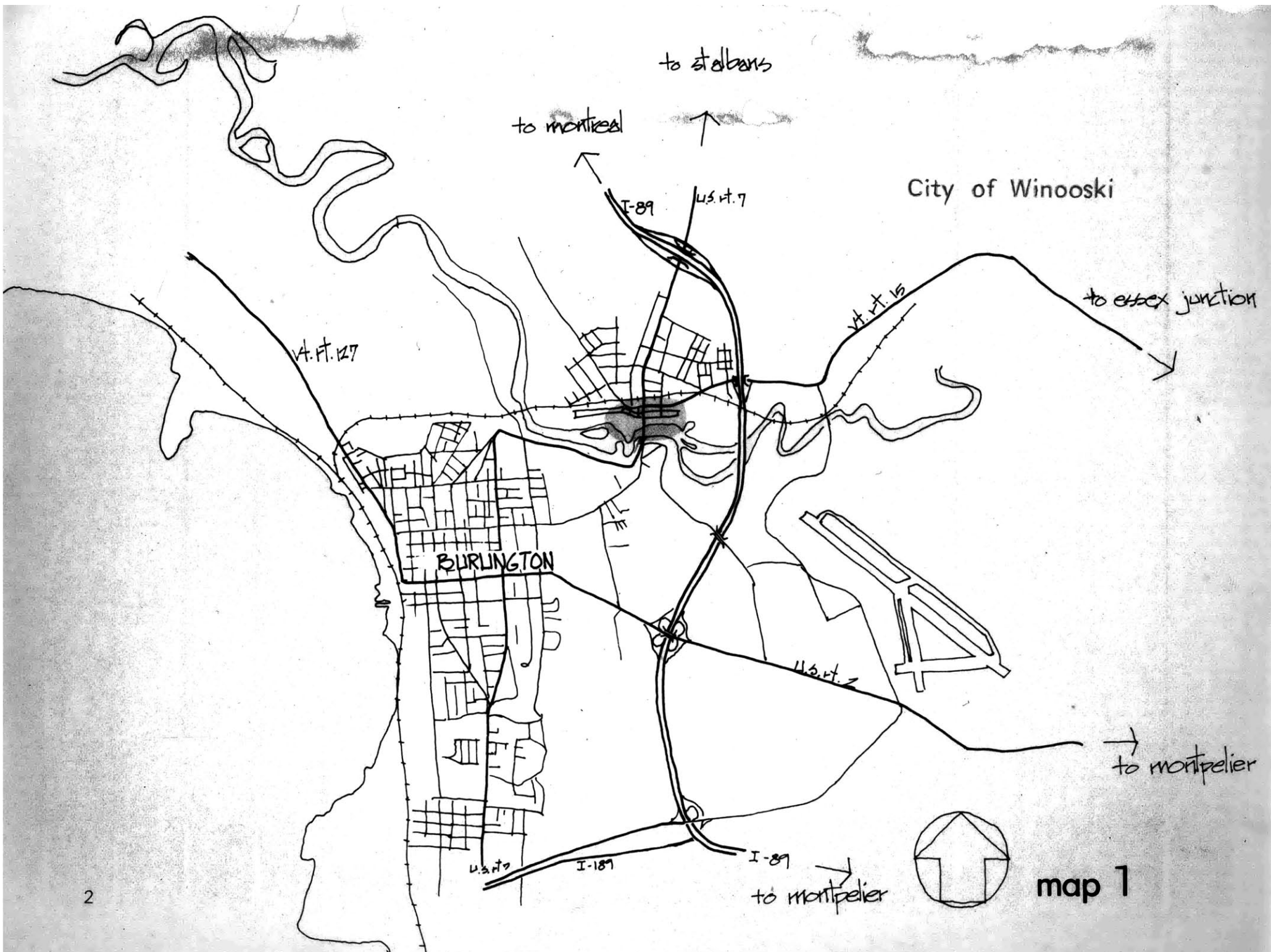


VERMONT HIGHWAY PLAN 1965



CITY OF WINOSKI

0 200 400 1000 feet



map 1

Design Considerations
Map 2

residential neighborhood

major corner
west allen

east allen

8-9% slope

6-7% slope

mayo

weaver

west center

east center

west canal

steep slopes good views

good views

east canal

steep slopes

flood plain

flood plain

winooski river

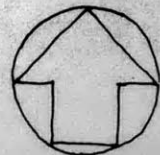
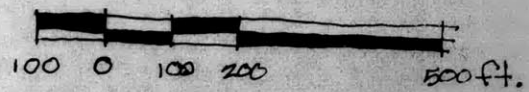
south main

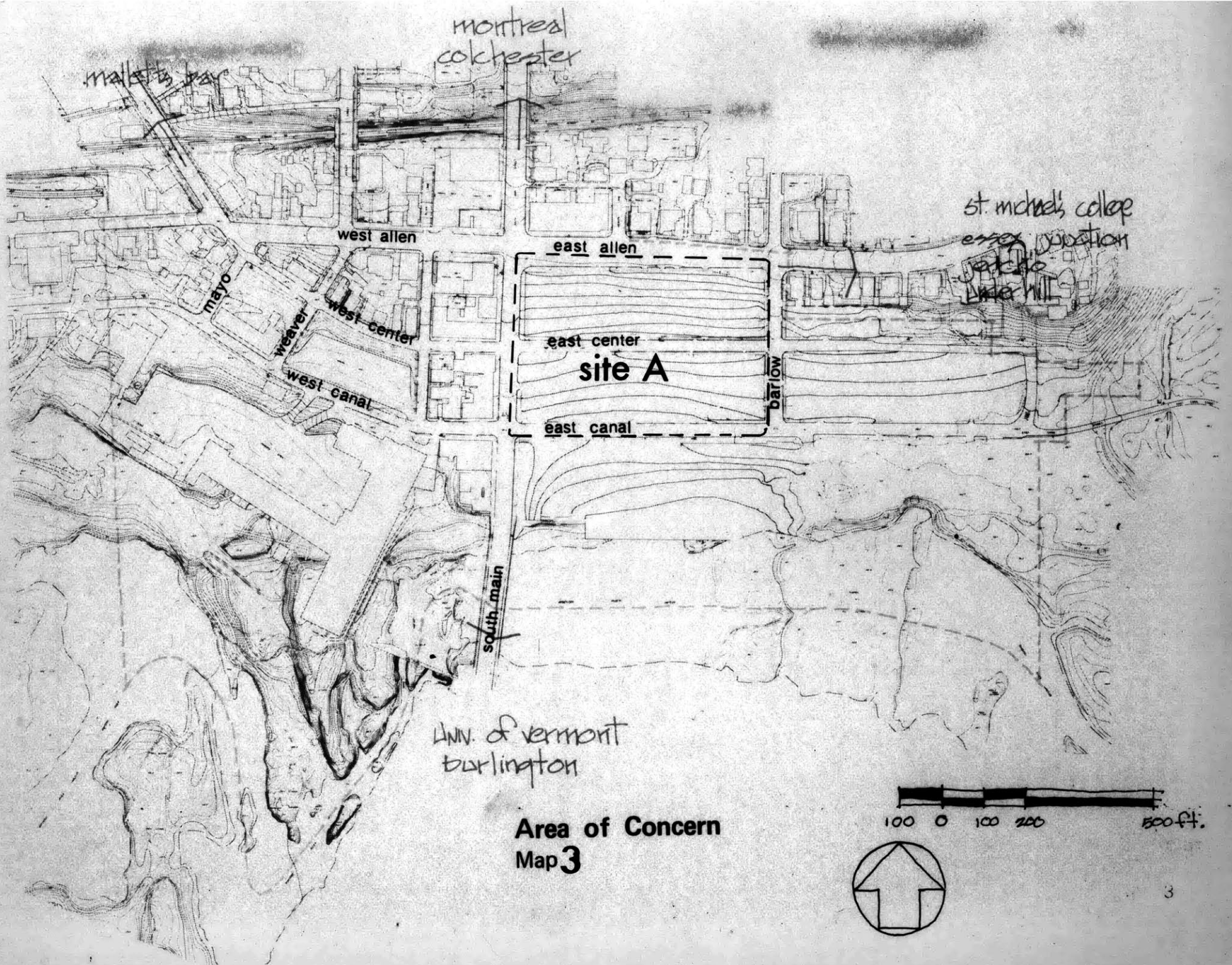
scenic falls
major open space

major approach

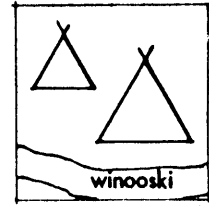
section b-b

section a-a



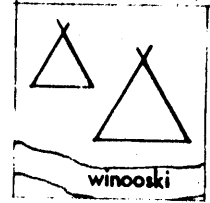


history



Winooski was settled by Indians long before white men discovered its potential water power, the Winooski River. The Abnaki Indians gave the city its name. In their language Winooski meant "onion" and early records refer to the river as the Onion River.

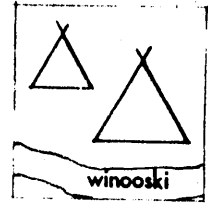
In 1787 white men led by Ira Allen arrived and settled Winooski; hence East and West Allen Streets which run through Winooski on the east-west axis. Both Allen, and his co-founder, Remember Baker, foresaw the advantages of using the river for water power. During the early 1800's the Winooski settlement grew, but the real surge in population occurred when the first mill was built in 1835. Soon after that Vermont Furniture and Porter Screen Company came to Winooski and industrialization began. Oriented around the mills in the typical, feudal way of New England mill towns, Winooski prospered and broke away from the neighboring town of Colchester in 1922. It incorporated itself into a city of 795 acres. For 32 years Winooski was a major textile center, home of the American Woolen Mills Company. In 1954, Winooski suffered the fate of many New England mill towns. American Woolen moved South, looking for cheap labor and proximity to the raw materials of its trade. Winooski virtually went broke. Half of the population lost jobs. The tax base shrank dramatically. Municipal responsibilities were ignored due to lack of funds, and the city quickly deteriorated. Eventually, with a large number of its families



on the welfare rolls and all development at a halt, Winooski's name became a regional synonym for urban blight and poverty.

Near the end of 1967, Winooski was designated as one of 77 Model Cities under the HUD Model Cities Program. It had the distinction of being the recipient of the largest per capita grant in the Program and was further distinguished by being a Model City in its entirety. The Model Cities Program was to pump \$788,000 per year over a period of five years into Winooski, a city of only 7,300 people: approximately \$550.00 over five years for every man, woman and child living in the city.

Even before 1967, however, Winooski city officials initiated a study into the feasibility of an urban renewal project in the downtown area of Winooski. In 1968 the responsibility for this project was transferred from the Winooski Planning Commission to a newly formed Urban Renewal Agency. In April, 1969, the Urban Renewal Agency applied to HUD for funds to carry out a feasibility study on this downtown renewal scheme. A \$26,250.00 "feasibility study" grant was awarded, the studies made, and in June, 1971, Winooski was awarded \$706,500 by HUD for a one year Neighborhood Development Program (NDP) pending the fulfillment of four requirements. Two of the most crucial were (1) ground breaking for public housing to be used to relocate some 75 families before August 14, 1971 and (2) acceptance by public referendum of the Urban Renewal Program



by the same date. These requirements and others were met and urban renewal went forward.

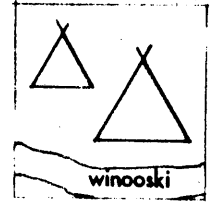
The size of the Urban Renewal Project area is 50.5 acres, 11.4 acres of which are water. The remaining net land area of 39.1 acres contained 118 buildings (many of these have been razed at this writing) of which 71 (60%) had deficiencies. There were 181 dwelling units in the renewal area, 103 of which were in buildings which were considered substandard. The justifications for an Urban Renewal Area were the following:

- building and environmental deficiencies
- overcrowding, lack of recreational space
- health hazards; lack of light and air in dwellings, poor heating, and fire hazards
- detrimental land uses: mixing of industrial and residential uses
- unsafe, congested streets, circulation problems, hazardous sidewalks
- loss of tax revenue

The proposed land-use plan is as follows (Refer to map 5, "Redevelopment Areas", Appendix 1):

(1) SITE "A"

7.4 acres for Commercial Land use



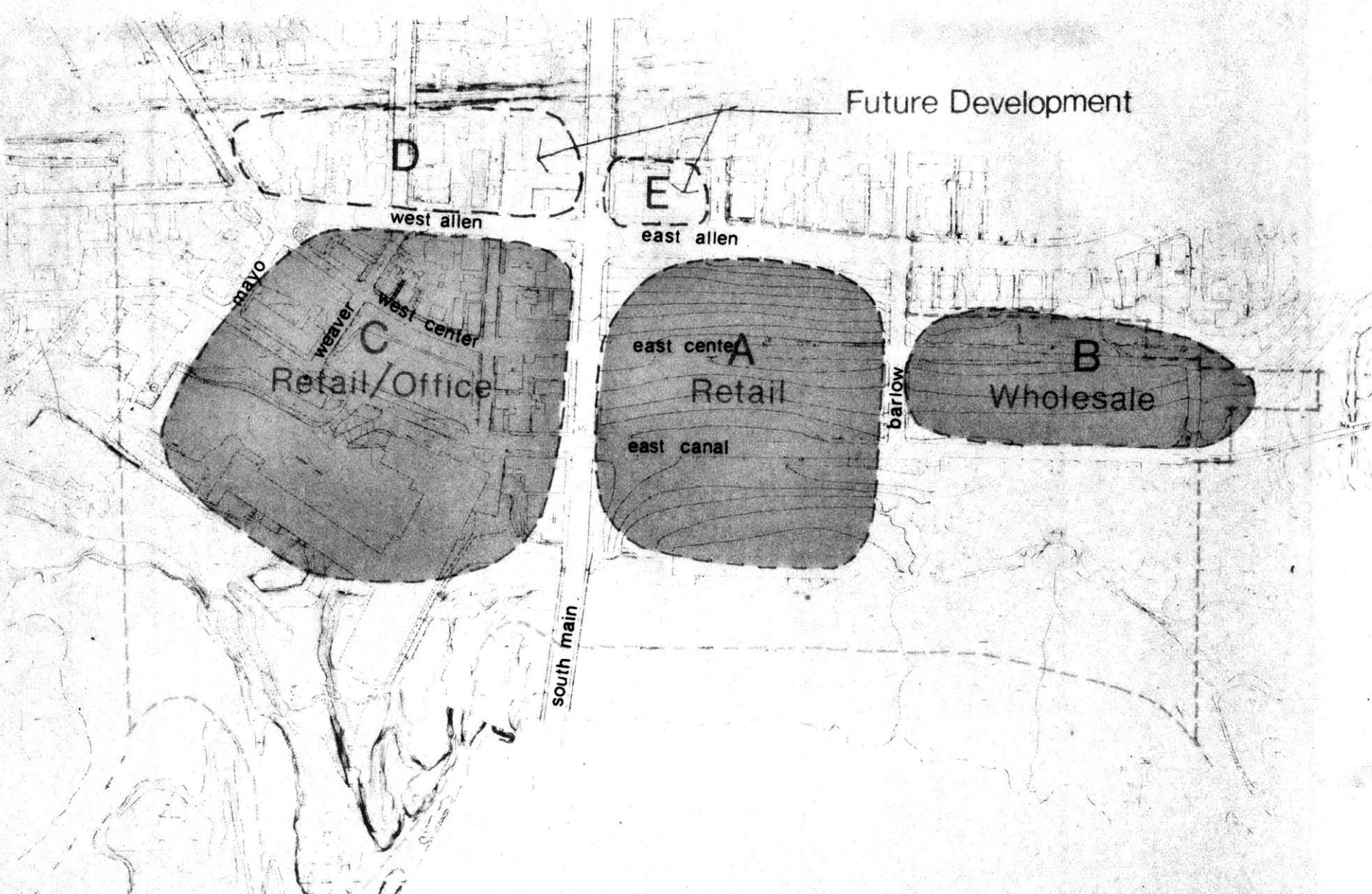
(2) SITE "B"

3.7 acres originally designated for residential use, federally-assisted housing. Now decisions are postponed until Site "A" is developed although wholesale use is possible.

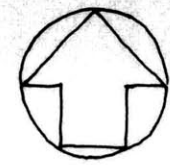
(3) SITE "C"

14.9 acres of Retail-office use. Possible site for new municipal buildings.

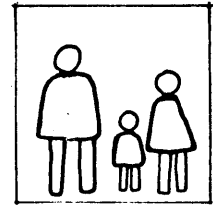
This thesis will program and design a commercial block for Site "A". The specific characteristics of Site "A" will be discussed later.



Redevelopment Areas
Map 5



social characteristics



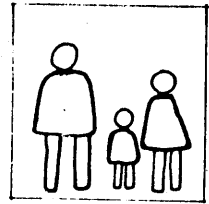
In the decade between 1960 and 1970, the City of Winooski was the only community in Chittenden County which did not have a net increase in population. In fact, Winooski's population decreased by 111 persons, a 1.5% negative change. Colchester, north of Winooski on Route 7, grew in population by 86% in the same period. Essex and Jericho, to the East along Route 15, grew by 54.5% and 64.4% respectively. Winooski is experiencing an out-migration of its population, particularly between the ages of 20 to 25. There is a decline in the following age groups: 0-10, 20-44, and an increase in these age groups: 10-20, 45-65, and over 65.

Above the age of 14, women outnumber men, particularly in the prime working ages.

The racial composition of the community is predominantly white. The largest percentage of families is French-Canadian. 90% of the population is Catholic.

Of a random sample taken in 1968, 13% of the sample was foreign-born and 36% of their fathers were foreign-born. In 46% of the dwellings visited by interviewers, French was spoken.

Average family size is 3.4 persons.



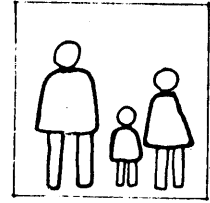
The fact that Winooski is economically depressed and its population low-paid is indisputable. The exact figures are hard to come by. I am relying for my information on Milton J. Nadworny's book, Economic and Market Analysis Study (EMAS), done in 1972 for the Urban Renewal Agency. He bases his study on the 1970 census. Nadworny points out that Winooski falls behind the state of Vermont and Chittenden County in terms of mean incomes. Taking an average of the 1960 and the 1970 figures, these are the results:

MEAN INCOME (Average Income) PER FAMILY (page 10)
(average of 1960 and 1970 figures)

State of Vermont:	\$10,099
Chittenden County:	\$11,865
City of Winooski:	\$ 9,364

Reports from the Vermont State Department of Taxes indicate that total personal income received in Winooski is increasing more slowly than in either the County or the State (page 10). It may also be significant, in this connection, that no family in Winooski reported an income in excess of \$25,000 in 1969 while in the same year there

1 All information from EMAS pages cited in text.

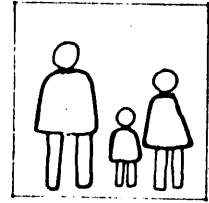


were over 45,000 families in this category state-wide and over 12,000 in Chittenden County alone (page 12). Again, in 1969, for all persons, 13.6% were below the "poverty level" in Winooski and 9.3% in Chittenden County (page 12).

Winooski's population is poorly paid relative to the state and region. Income figures are very low, providing a very slight tax base from personal income for the city. We also can assume that unless the economic base of the city changes, the economic situation of the individual family will remain the same. This brings us to the issue of employment and unemployment in Winooski.

A major factor in employment is the low educational level of the population especially in contrast to Burlington, the home of the University of Vermont, which is over-run by highly educated professionals. According to a 1968 survey of the heads of households in Winooski, 59% of the sample never completed high school. The 1960 census reported that the median number of years of school completed in Winooski and Chittenden County were 8.6 and 11.0 years respectively. Again,

² Avançons, A Comprehensive Plan for Physical Improvement, 1971, p. 27.

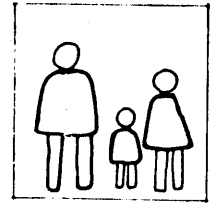


Winooski falls behind the county average.

Occupation reflects this general lack of schooling. The majority of Winooski residents in the labor force are in the blue collar or service job classification. Nadworny gives us the following percentages for 1970 showing occupations of Winooski residents (EMAS page 14):

<u>1970</u>	<u>Percentage</u>
Clerical Workers	19.5%
Operatives	18.4%
Service Workers	16.3%
Craftsmen	15.5%
Professional and Technical	13.2%

The shifts that have occurred in the occupations indicate that there are significant increases in the areas of Transportation, Communication, Utilities, Finance, Insurance, and Real Estate. Employment is perceptibly shifting away from goods-producing industries to services and selling, just as occupational shifts are away from machinery-oriented jobs and more toward non-manual jobs (EMAS page 16). This is a hopeful trend. Women predominate over men in the prime working ages. Women had an unemployment rate of 5.1% in Winooski versus a 4.1% rate of the total labor force. The shift towards non-manual jobs is hopeful in that it promises to provide more work for this large and under-employed segment of the labor force. In 1971 the Manpower

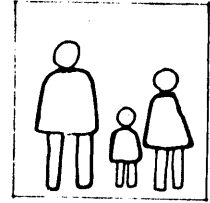


Coordinator of the Model Cities Program and the Department of Employment Security did gather unemployment data and calculated the staggering figure of a total unemployment of 13.8% in Winooski for 1971 (EMAS - page 17). Most of the unemployed were clerical workers.

These figures suggest that to alleviate critical unemployment in Winooski and, with it, the attendant socio-economic problems, redevelopment of the Urban Renewal Area should stress enlarged and more viable enterprises in retailing and services.

Economic problems have taken a social toll on Winooski residents. In 1968 the Model Cities Administration engaged Community Research Associates, Inc. of New York to pinpoint problems of social welfare and to prescribe a coherent program aimed at prevention and rehabilitation.³ Of the 1095 families in Winooski, CRA found 420 which suffered from what they called "Level 'A' disorders" - common social disorders produced either by imperfections in the person or by imperfections in the economy, but more likely by some combination of both. Obvious, however, is the detrimental effect of any of these disorders on the individual, his fa-

³ Winooski's Social Welfare; A Report Prepared for the Winooski Model Cities Administration, Community Research Assoc., Inc. All further references will include pages in the text.

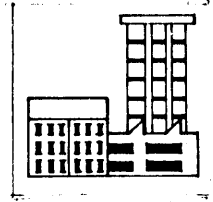


mily, and the community as a whole. "Level 'A' disorders" fall into five different categories:

<u>LEVEL 'A' DISORDERS (page 3)</u>	<u>% of families with each disorder</u>	
	<u>FAMILIES WITH CHILDREN</u>	<u>ADULT FAMILIES</u>
Financial Functioning dependency medical indigency	70.2%	63.4%
Child Development delinquency truancy, etc.	27.9%	18.5%
Marital Functioning separation divorce, etc.	43.7%	
Child Rearing neglect adoption, etc.	0.9%	39.0%
Adult Adjustment major crime institutionalization, etc.	20.9%	

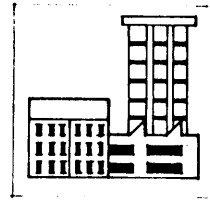
Any recommendations have to recognize the preponderance of social welfare problems. Most families in this group receive some kind of financial and public aid although very few are entirely dependent. Again this points up the need for new economic energy in the community. With more economic vitality Winooski can turn its attention to the urgent problems of social welfare. Increased revenues will give the city greater latitude in its efforts to upgrade the quality of life for its citizens.

land use



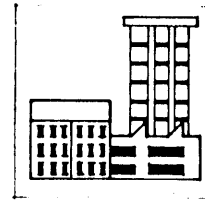
Necessary to the formulation of a sensible program and design for the Urban Renewal area is a clear understanding of the existing land use patterns of Winooski. Perhaps the most striking pattern is the mixed usage. New zoning regulations will try to prohibit this pattern in the future, although I feel that mixed usage is necessary for urban character and appropriate for relatively small cities in New England.

75% of the developed land in Winooski is residential which means that the predominant source of tax revenue is the residential property owner. The Model Cities Administration is concerned about this burden on the homeowner. It recommends three things: (1) to discontinue construction of tax-exempt public housing developments for families with children in favor of housing on which the city collects full taxes (i.e., privately developed, privately owned, government subsidized housing); (2) to limit the number of new multi-bedroom housing units in the city in order to avoid inflating the school population and increasing the school budget; and to build one bedroom and efficiency units to attract older couples, young married couples, single working people, and college students, and (3) to utilize the zoning ordinances to effect a change



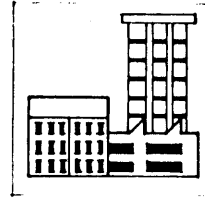
in orientation from residential land uses to commercial and industrial uses. Although one may question the reasoning behind these recommendations, the recommendations stand as the basis for land use planning in Winooski and more specifically for the commercial use designation of Site "A" of the Riverside Renewal Area, the site with which this thesis deals.

Most commercial facilities in Winooski are downtown and serve local customers. Only a handful of stores serve the regional area; the stores do not compete effectively for outside business. Forest Hills Factory Outlet sells discount clothes and other articles. The Country Store sells discount food. These two stores draw customers for the discount. Grossman's lumber is the only other large commercial facility. These three stores are clustered together, west of Main Street, close to the river. There are, however, no adjacent stores to share the shoppers' money. The rest of Winooski's commercial establishments are strung out along East Allen Street and South Main, those streets which form the western (S.Main) and northern (E. Allen) boundaries of Site "A". These stores depend on the heavy flow of traffic along these streets although there is not adequate parking to make the stores really convenient.



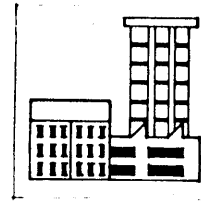
Winooski, then, has a cluster of three large stores and a strip development along S. Main and E. Allen Streets. There is no other "anchor" store to balance the large discount stores, and no "stringers" to capitalize on impulse buying. The effect of this inefficient layout of stores is that small speciality stores which could draw consumers off the road cannot locate here. Winooski needs accessible shopping, plenty of covered parking easily approachable by attractive pedestrian walks past stores of all kinds. Winooski cannot compete with the enormous suburban shopping centers. It should try to capitalize on the enormous amount of traffic passing through town every day by offering a different shopping environment - one which is small-scale, intimate, and combines other conveniences like a health clinic, a theater, and perhaps a French cultural center with small interesting stores, and some office space.

Industry has many problems to cope with in Winooski. The distance from raw materials and from the markets make industry shy of locating in Winooski. Lack of available sites which have room for expansion of a plant is another consideration. High insurance costs for fire and vandalism also discourage possible industrial tenants. Deteriorating buildings and high maintenance costs are discouraging existing industries from



staying in Winooski. Generally inefficient circulation hinders accessibility of some industrial sites and lack of adequate off-street parking and loading space only aggravates this problem. Winooski is trying to attract new industrial development. None of these, however, will fall within the Riverside Renewal Area. Nadworny, in the EMAS, suggests that Winooski has a potential for arts and crafts type manufacturing in the Renewal Area - an activity which requires neither large amounts of space nor access to distant markets. The labor is available among the residents of Winooski and the local colleges train people in such skills. This could help Winooski to establish its own small-scale enterprises in jewelry, pottery, weaving and other handicrafts.

New community facilities for Winooski presuppose a strong and diversified tax base. All the above recommendations for residential, industrial and especially commercial land use will hopefully start to make this a reality for Winooski. In other words, a strong source of tax income either through an increase in taxable properties or through participation of the city in profits ordinarily accrued to private enterprise (for instance, city-owned underground parking above which it will lease air-rights) is necessary to insure the steady source of funds necessary to improve social welfare through community-oriented facilities.

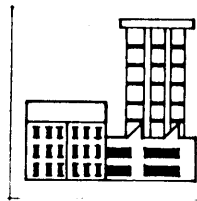


Given an adequate commercial development in the Urban Renewal Area, community facilities can survive. There has been a demonstrated⁴ need for pediatric and dental clinics in Winooski. Although Burlington provides excellent medical care through its hospitals, the day to day business of preventive and non-emergency care is not absorbed by Winooski and falls on the emergency rooms in major hospitals. A long term health improvement strategy for Winooski would include health education both in the schools and for the adults. It would provide clinics in which contemporary problems like drug abuse, smoking, alcoholism, and sex education could be the subject of constructive teaching programs. Physicians readily admit that unless a Health Center is constructed in Winooski the pediatricians and the dentists who are needed will not locate in Winooski. A Health Center to provide comprehensive medical care for Winooski would include:

- office and examining space for six to eight physicians
- space for a multi-phasic screening unit
- office space for 10-15 public and private welfare agencies⁵
- space for medical and other records and general research

⁴ Dr. Charles Houston, Community Medicine consultant to Model Cities, places great emphasis on child health and public education in the schools.

⁵ Recommendations from Dr. Charles S. Houston, consultant to Model Cities in the Health Team Program Draft.



Another element to be included in any community facility would be a French Cultural Center. The French-Canadian community predominates in Winooski. A French Cultural Center would help reinforce cultural origins and support ethnic pride and cooperation. Ethnicity is potentially a powerfully constructive force in Winooski, and can lend impetus to positive community action.

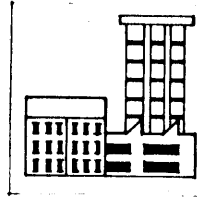
Recreational facilities are scanty. Winooski has only one cinema - a drive-in. It needs year-round entertainment facilities, a cinema being the most obvious for the downtown area.

Combining community services and recreation with commercial facilities would make the downtown shopping area of Winooski active 24 hours a day. It would also provide varied land use of a site at the very center of downtown Winooski, and avoid sterile compartmentalization of different aspects of city life.

The zoning regulations for "Central Business: C-1" which is the designated use for Site "A" are as follows:

GENERAL PURPOSE: "...to retain, project, and provide for a centrally located and unified central business district, accommodating a variety of offices and community and neighborhood oriented retail and service commercial activities ..." ⁶

⁶ City of Winooski Zoning Regulations. October 1970. page 14.



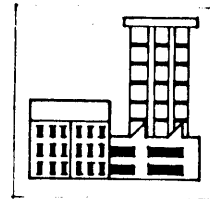
USES WHICH ARE PERMITTED (page 15)

- (a) professional and business offices, including banks
- (b) retail business, personal service, or business service
- (c) restaurants provided that food is consumed inside the building
- (d) hotels, lodging houses
- (e) meeting halls, facilities for community organizations, etc.
- (f) indoor athletic facilities
- (g) indoor auto sales
- (h) indoor theatre, auditoriums
- (i) library, art gallery, museum

USES PERMITTED CONDITIONALLY

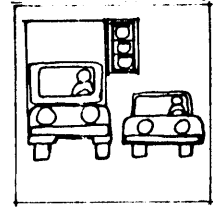
- (a) public and quasi-public buildings and open space
- (b) multi-family residential
- (c) open-air retail display activities
- (d) hospitals, nursing homes, rest homes
- (e) outdoor athletic and recreation facilities and attendant accessory facilities
- (f) garages or lots for short-term parking

I propose using the zoning regulations in the most creative way. A multi-use development would enhance Winooski's CBD and insure that its commercial sector is significantly different from the suburban shopping malls which ring the Burlington area. Multi-use development



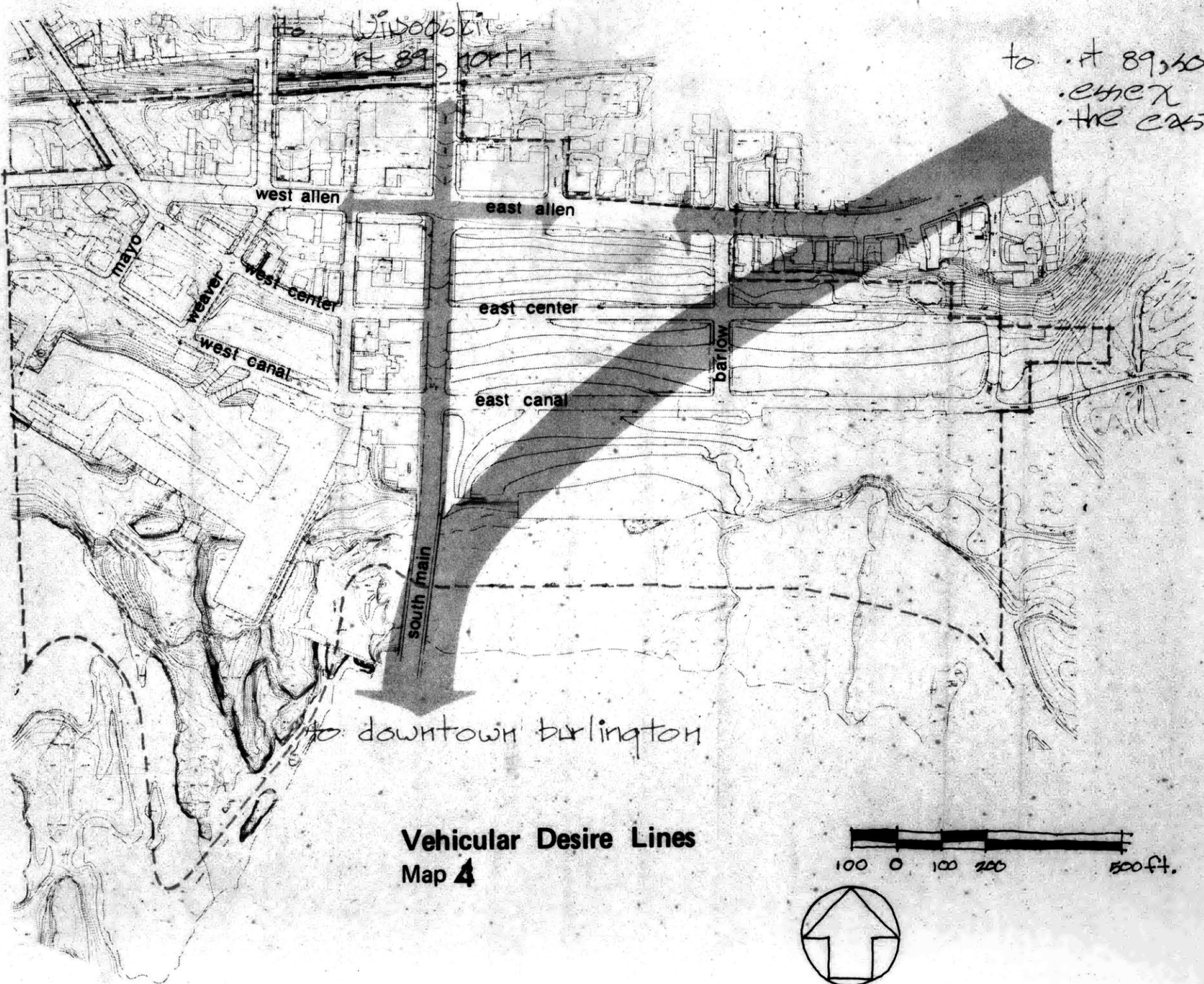
is also more responsive to the diverse nature of each person's daily commitments. Taking this diversity into consideration could provide a more humanistic environment.

traffic and circulation

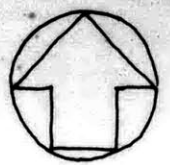
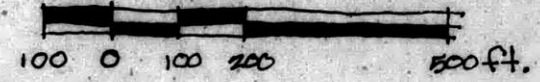


Solutions to Winooski's parking problems bear directly on the potential success of a downtown commercial center. Adequate parking is essential. "Adequate", however, is a flexible term. New parking will be adequate only if it contributes to the accessibility and convenience of downtown shopping and thereby to the revitalization of the Urban Renewal Area. Combining sufficient amounts of covered parking with easy vehicular and pedestrian circulation would assure the accessibility and popularity of the downtown commercial center at Site "A".

Winooski suffers from an enormous volume of traffic passing through at peak hours from Burlington to the suburbs. The widening of both Main Street and East Allen Street could alleviate this snarl as well as provide access lanes for the large commercial conglomeration on Site "A". Adequate service roads into the commercial complex are essential, as are convenient truck docks.



Vehicular Desire Lines
Map 4



to . at 89, south
 emer
 the east

to downtown burlington

summary

Winooski is an anomaly in a region which is enjoying unprecedented growth and prosperity. The statistics and descriptions given above evidence the obvious: when American Woolen Mills closed, Winooski's economic vitality drained away. The result was dramatic environmental, social and economic decay. Whatever amount of data is collected to measure environmental and social deficiency the solution is not quantitative. Replacing sub-standard housing and roads, providing new commercial development - these things are good, realistic goals. It seems, however, that beyond physical rehabilitation, the issue is remaking Winooski's image - the most important and elusive goal. Winooski's image will improve only as its citizens gain self-respect and respect for the town. Any Urban Renewal goal must include improvement of the physical structures, of course. However, light, air, color, space, openness, vistas - all the unquantifiable needs of the human spirit, must be taken into account as well.

It is my intention in my design for Site "A" of the Riverside Urban Renewal Area to address not only the hard core economic issue of tax revenues, but also the need for less tangible things which make or do not make a building more than just servicable, and a town more than just alive.

program

My program for Site "A" of the Riverside Urban Renewal Area developed from two things: (1) from the original designation by the Model Cities Comprehensive Plan of Site "A" as suitable for commercial development, reinforced by zoning ordinances designating Site "A" as C-1, central city commercial, and (2) from my reading and interpretation of the numerous facts and figures and recommendations of all the agencies reporting to Model Cities on Winooski's redevelopment. Beyond these two factors is my conviction that Winooski has real attributes that a sensitive design can parlay into an attractive and revitalized community - a community with new business and a better image of itself.

The most recent analyses of projected need for retail space⁷ in Winooski through 1975 call for a total demand of 150,000 sq. ft. Fred R. O'Donnell Associates gives us the following summary:
(see next page)

⁷ Update of feasibility Study, Riverside Neighborhood Development Program, Winooski, Vermont, January 8, 1974, Fred R. O'Donnell Associates Inc., page 13.

Summary of Demand for Retail Square Footage from All Sources through 1975

<u>1968 - 1972</u>	<u>Square Footage</u>
Growth Demand (unmet)	67,365 sq. ft.
Replacement Demand (based on a replacement rate of 2% per year)	23,642 sq. ft.
TOTAL:	<hr/> 91,007 sq. ft.
 <u>1973 - 1975</u>	
Growth Demand	44,179 sq. ft.
Replacement Demand	14,185 sq. ft.
TOTAL:	<hr/> 58,364 sq. ft.
 <u>Total Demand for New Retail Floor Space in Winooski Through 1975</u>	 149,371 sq. ft. (rounded to 150,000 sq. ft.)

This 150,000 sq. ft. is not necessarily designated for Site "A" alone. Site "C", 14.9 acres west of South Main Street, which includes Forest Hills Department Store, the Mill Restaurant, the Post Office, the Church, and an adjacent residential structure, will also have some retail development. The Lavallee and Roy Mill building on East Canal Street, at the bottom of Site "A", will be rehabilitated to contain some 25,000 sq. ft. of rentable retail space. I am, rather arbitrarily,

deciding that a maximum of 50,000 sq. ft. of retail will be incorporated into the development of Site "A".

The Health Center called for above will accommodate six to eight physicians engaged in group practice plus space for record-keeping and general public health practices. Nadworny's EMAS provides us with the standard measure of 2,000 sq. ft. per physician, up to six physicians. Beyond that the per-physician square footage drops to 1,000 sq. ft.⁹ We can safely assume that a maximum of 17,000 sq. ft., the amount of space suggested by Dr. Houston in his report to Model Cities,¹⁰ will be enough to house a Health Center for Winooski.

Growth in the areas of Finance, Insurance, and Real Estate indicates a demand for more operating space. Again, the Lavalley and Roy Mill building will provide close to 20,000 sq. ft. of available office space. Site "A", therefore, need only supply enough for the Health Center and one or two small related offices - approximately 15,000 sq. ft.

⁹ EMAS, Nadworny, p. 25-26.

¹⁰ Health Team Program Draft, Dr. Charles Houston, Consultant in Community Medicine to Model Cities, p. 15.

program

There is only one cinema in Winooski, a drive-in, which is only operable in summer. It is feasible to consider a 100-150 seat cinema on Site "A", a square footage requirement of between 3,500-5,000 sq. ft. A cinema would function as the nucleus of night-time activity in the Riverside area, drawing people to the restaurants planned for the mill building and helping to stimulate night-time as well as day-time use of the downtown area.

Also important to the redevelopment of the central city is the inclusion of community-related facilities. I propose locating the French Cultural Center on Site "A" to provide community services in the downtown area and to encourage mixed use development on the rest of the site.

The potential for manufacturing development, any extensive goods producing activity, is limited in the Riverside Renewal Area. Handicrafting is reasonable, however, with the labor supply plentiful and spare requirements minimal. Artists' studios combined with gallery space is also recommended. Square footage required for handicrafts workshop: 600 sq. ft., for a darkroom; 500 sq. ft., for artists;

625 sq. ft. for each artist. Total square footage requirement for one workshop with two artists, one darkroom, three small gallery/shops of 600 sq. ft. each comes to approximately 3,100 sq. ft.

SQUARE FOOTAGES:

The following square footages will serve as program guidelines for my design for the first stage development of Site "A":

RETAIL USE	50,000 sq. ft.
OFFICE USE	15,000 sq. ft.
RECREATIONAL USE - French Center	1,500 sq. ft.
- Cinema	5,000 sq. ft.
PARKING	30,000 sq. ft.
TOTAL SQUARE FOOTAGE BUILT	121,500 sq. ft.

My attitude towards the design development of Site "A" is that it should be an incremental process. This is reasonable from the business point of view: the community cannot support an enormous amount of commercial space if it is built all at one time. The economic infusion is most effective if the community can keep stride with it. The building itself should also be designed and built incrementally. My thesis

is an exploration of Site "A". The program proposes a mixed use environment, essentially commercial. The design uses only part of Site "A" and is one of many possible solutions. It is organized around a series of overlapping networks which could also generate the design and organization for future development. The diagrams which follow indicate how that development might take shape. My design for Site "A:", then, is acutally the first stage in an incremental process which would eventually result in a dense, highly varied downtown for Winooski. My thesis has not concentrated on finalizing a design for Site "A:", but on establishing principles of organization which respond to the environmental and socio-economic conditions in Winooski and which will provide a framework, partially built, partially implied, for future development of the site.

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EAST ALLEN STREET

SOUTH MAIN STREET
EAST LITTLE HILLS

EAST CANAL STREET

site plan
winoski, vt.


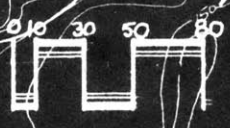
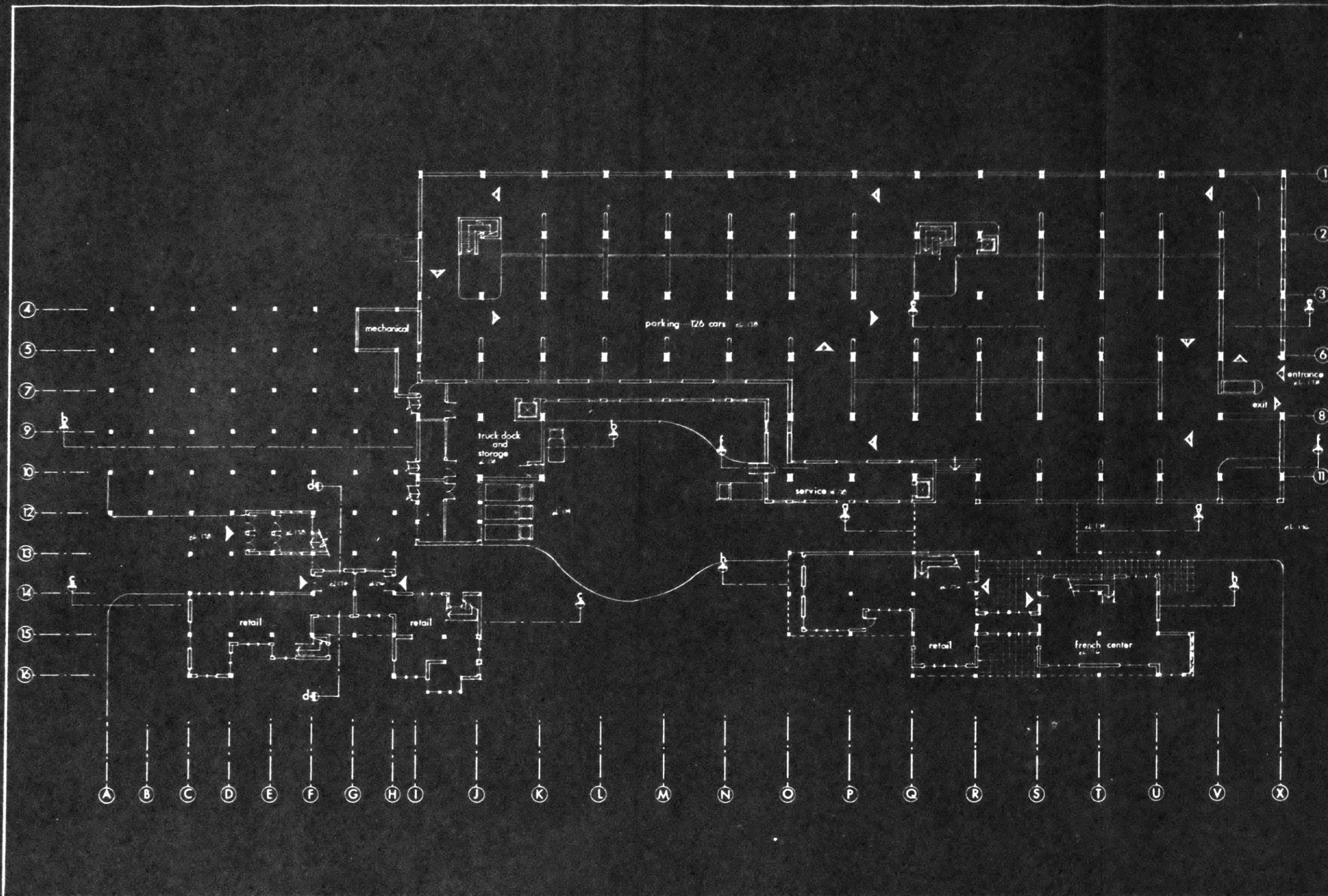


plate 1



winooski, vt.
commercial
center

plan ground

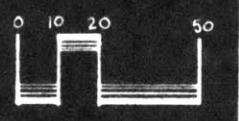
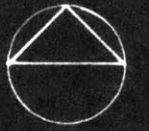
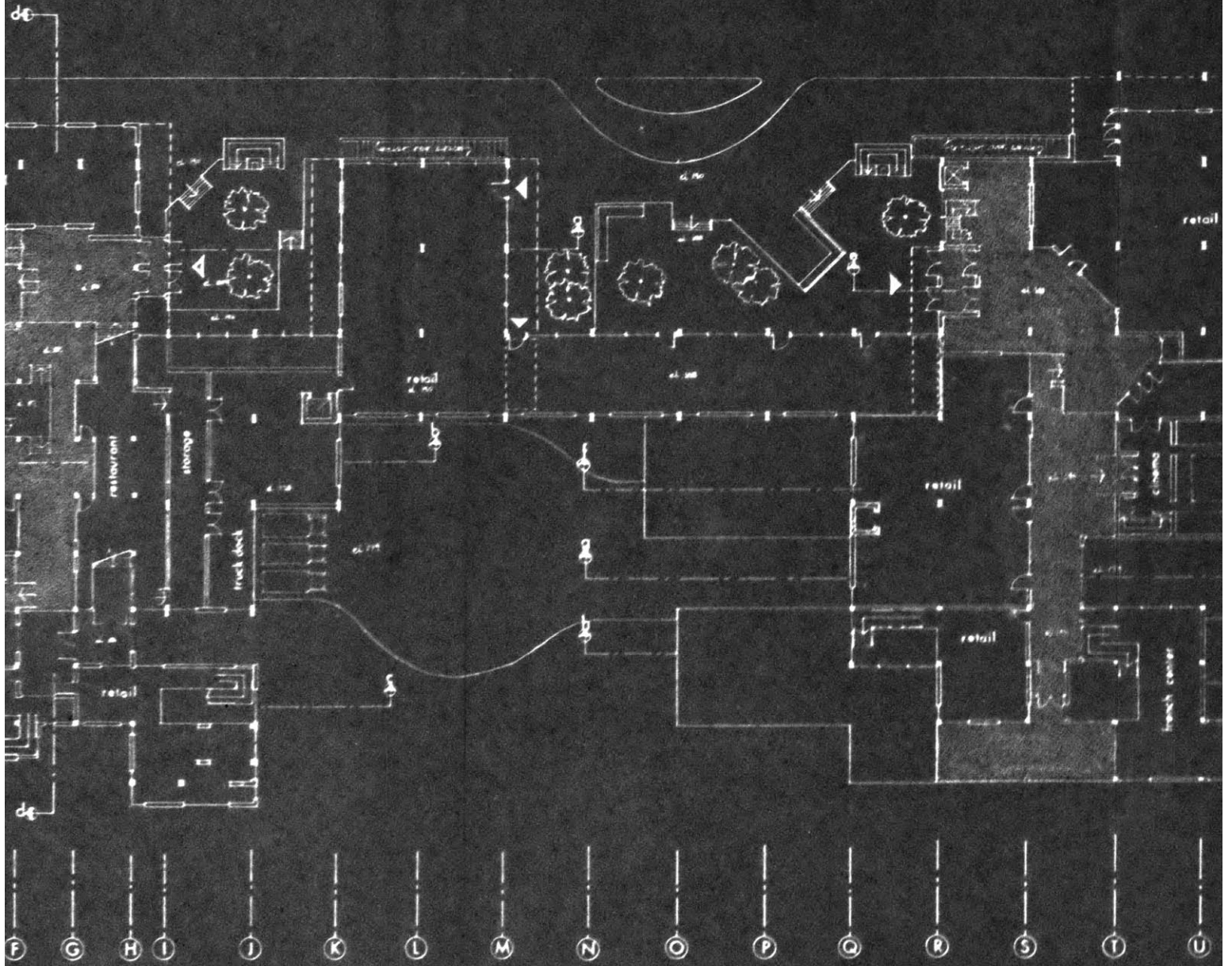
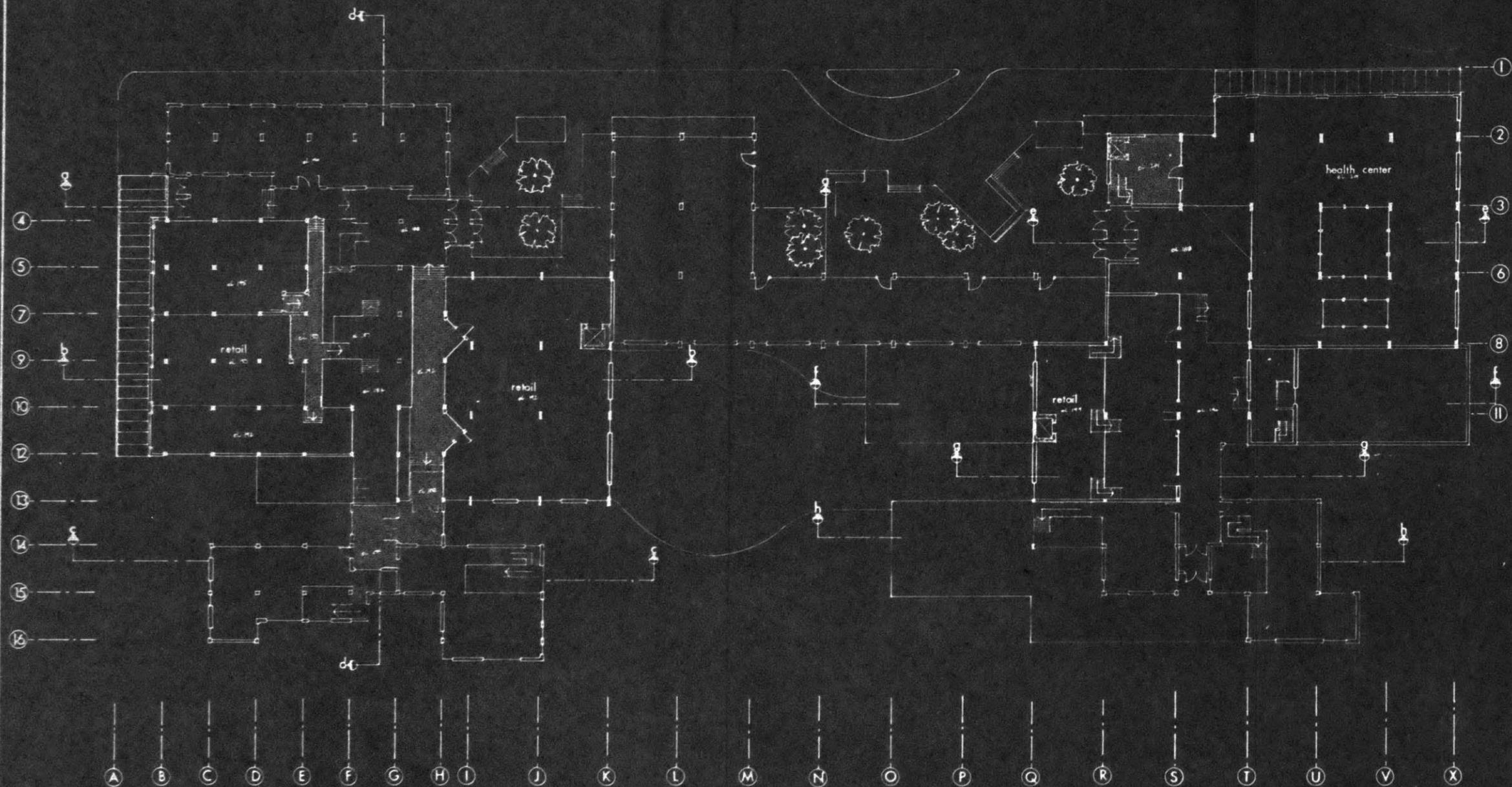


plate 2





winooski, vt.
commercial
center

plan level 2

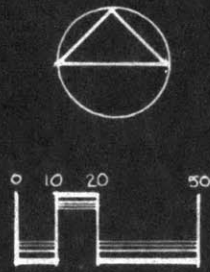
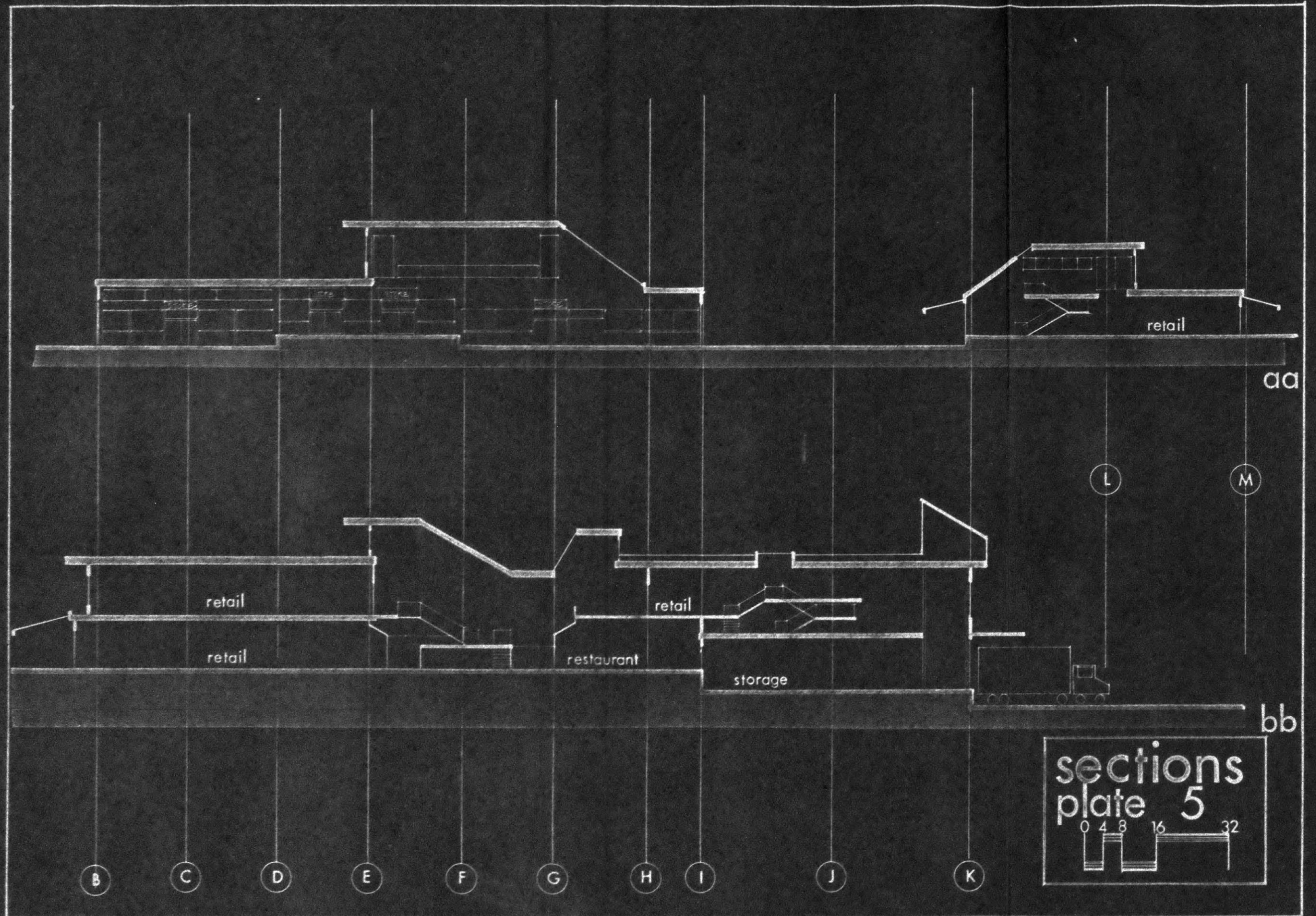
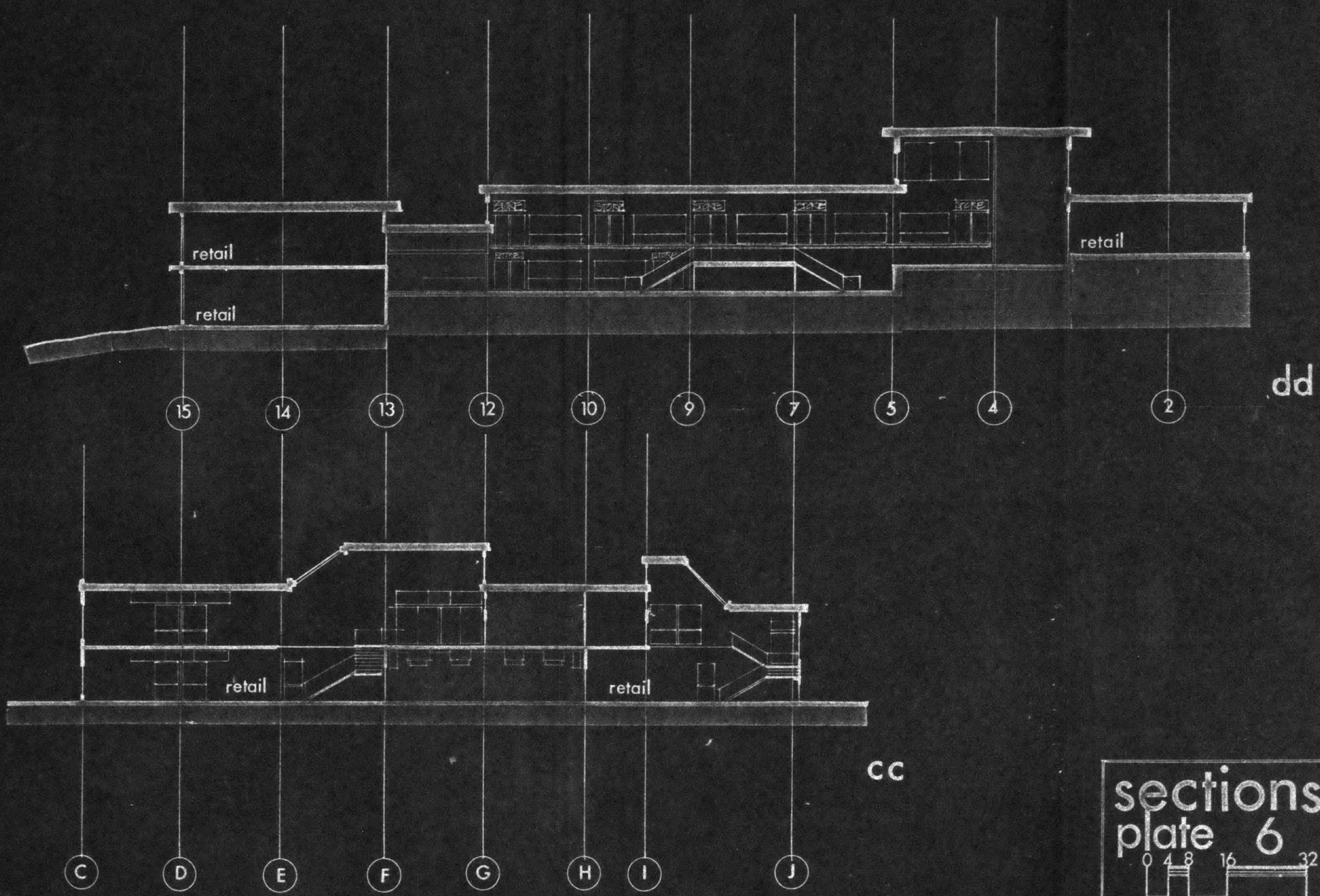


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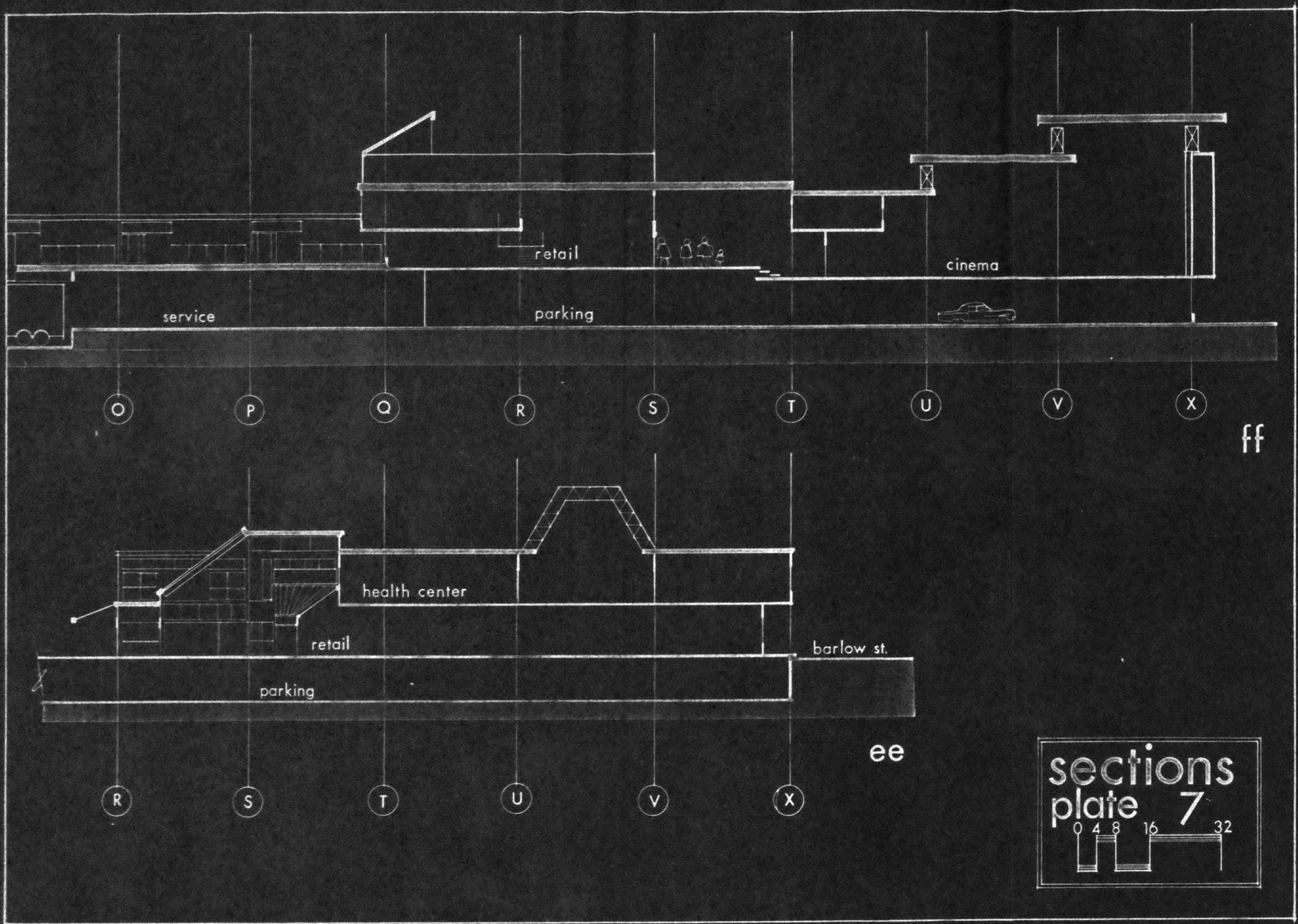


sections
plate 5
0 4 8 16 32



sections
plate 6

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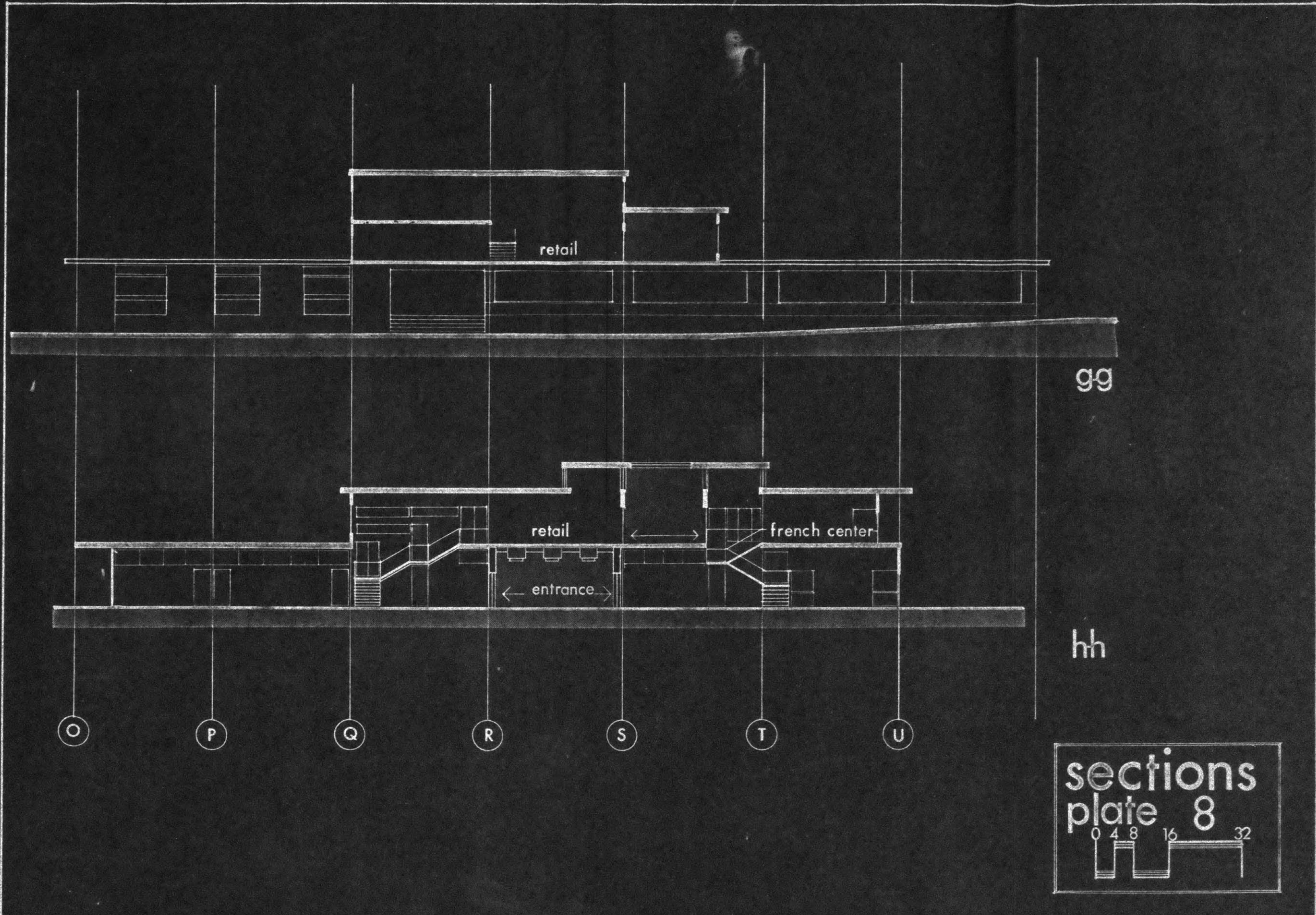
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R S T U V X

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sections
plate 7

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sections
plate 8
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EAST ALLEN STREET

present development

future development

pedestrian

service

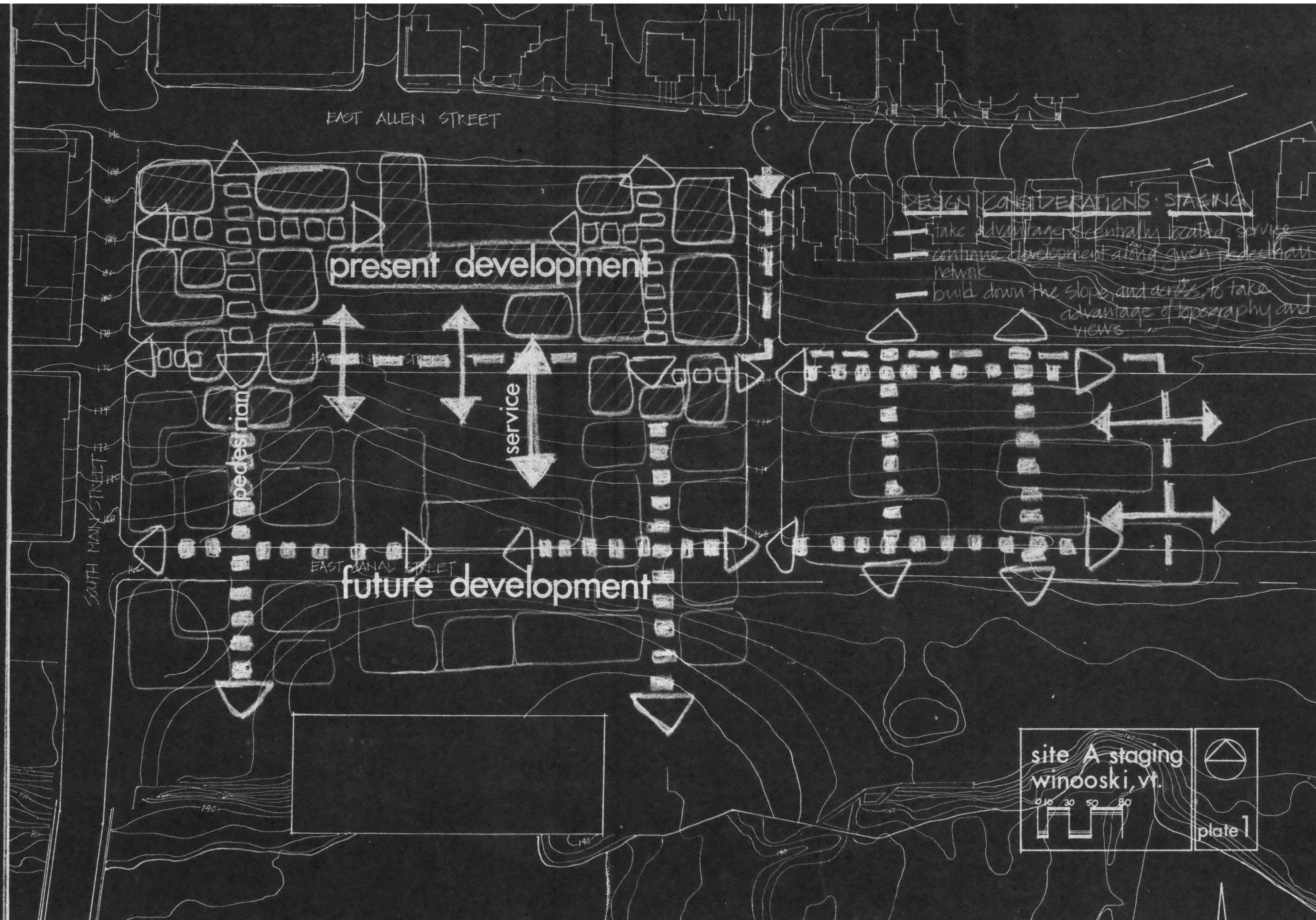
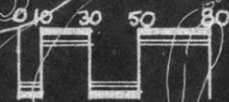
DESIGN CONSIDERATIONS STAGING

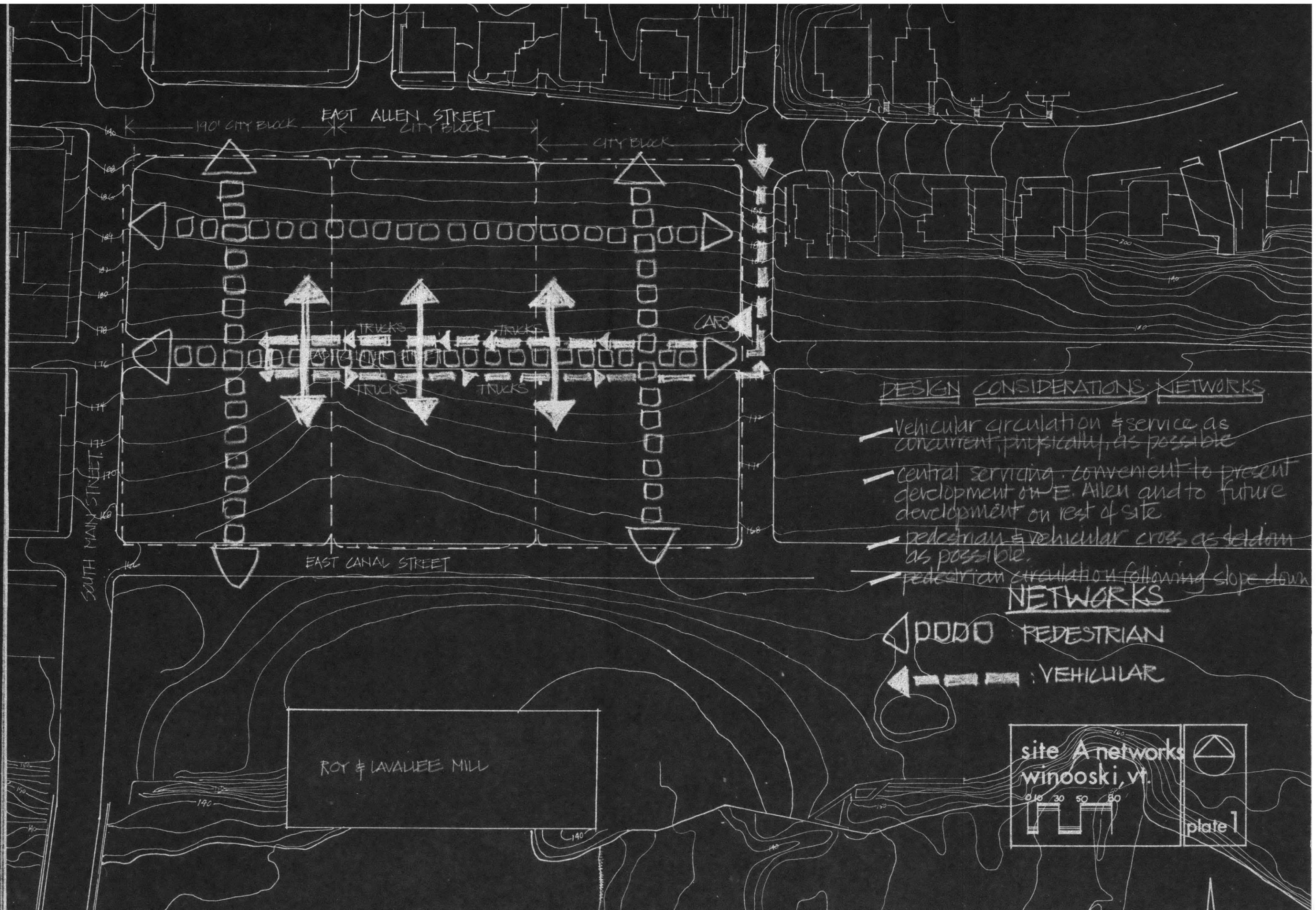
- take advantage of centrally located service
- continue development along given pedestrian network
- build down the slope and across, to take advantage of topography and views

SOUTH MAIN STREET

EAST CANAL STREET

site A staging winooski, vt.





DESIGN CONSIDERATIONS NETWORKS

- Vehicular circulation & service as concurrent, physically, as possible
- central servicing, convenient to present development on E. Allen and to future development on rest of site
- pedestrian & vehicular cross as seldom as possible.
- pedestrian circulation following slope down

NETWORKS



site A networks
 winoski, vt.

0 10 30 50 80

plate 1