

UNIVERSITY OF MINNESOTA

CENTER ^{FOR} TRANSPORTATION STUDIES

R E S E A R C H R E P O R T

CITY

R E B U I L D I N G

THE UNIVERSITY AVENUE BUS CORRIDOR

DEPARTMENT OF LANDSCAPE ARCHITECTURE
UNIVERSITY OF MINNESOTA 1 9 9 7

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CTS 05-13

Technical Report Documentation Page

1. Report No. CTS 05-13		2.		3. Recipients Accession No.	
4. Title and Subtitle City Rebuilding: The University Avenue Bus Corridor				5. Report Date 1997	
7. Author(s) Mary Vogel, James Pettinari, Lance Neckar				6.	
9. Performing Organization Name and Address Department of Landscape Architecture University of Minnesota 89 Church St SE Minneapolis, MN 55455				8. Performing Organization Report No.	
12. Sponsoring Organization Name and Address Center for Transportation Studies University of Minnesota 511 Washington Avenue SE, Suite 200 Minneapolis, MN 55455				10. Project/Task/Work Unit No. CTS Project Number 1996024	
				11. Contract (C) or Grant (G) No.	
15. Supplementary Notes http://www.cts.umn.edu/publications/reports/ (Report published in October 2005)				13. Type of Report and Period Covered Final Report	
				14. Sponsoring Agency Code	
16. Abstract (Limit: 200 words) Transit service can greatly affect the form and vitality of a city. This work examines the opportunity to revitalize the University Avenue transit service as part of a permanent transit-oriented corridor. Because University Avenue has traditionally connected important destinations, the current service is one of the most successful in the Twin Cities. However, changing economic conditions in the districts along the avenue threaten its vitality. Transit-oriented redevelopment could be a solution. Because long-term investments in transit oriented development on this avenue would require incentives beyond the current tax abatement, several kinds of physical changes are recommended in this document: <ul style="list-style-type: none"> • Retrofitting the 120-foot-wide portion University Avenue Corridor as a dedicated bus transit-way. • Rezoning infill parcels to revitalize street frontages and reduce requirements for off-street parking. • Urbanistic ideas for infill development, including an emphasis on medium-to high-density residential and mixed-use retail and office. These physical ideas seem well supported by the demographics and many of the cultural, political, and economic issues that need to be addressed in concert with transit redesign efforts. This integrated approach is critical to the rebuilding of the core of the Twin Cities and balancing the surge of suburban development.					
17. Document Analysis/Descriptors Transportation planning Urban transit Public transit			Urban Design Land Use Planning		18. Availability Statement No restrictions. Document available from: National Technical Information Services, Springfield, Virginia 22161
19. Security Class (this report) Unclassified		20. Security Class (this page) Unclassified		21. No. of Pages 47	
22. Price					

ACKNOWLEDGMENTS

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The financial support of oil overcharge funds distributed through the Minnesota Department of Administration is acknowledged, but the authors assume complete responsibility for the contents herein.

THE RESEARCH TEAM WOULD LIKE TO ACKNOWLEDGE THE COUNSEL AND HELP OF THE FOLLOWING PEOPLE:

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ORGANIZATION OF REPORT

This report is organized in two major sections, a metro scale section and a district scale section. An introductory section and a conclusion section frame the main body of the report.

Section I deals with the corridor as a whole. It describes the characteristics of the corridor and its place in the region. Metro scale issues and opportunities are identified. A strategy that gives transit an identifiable presence in the corridor and an important role as an armature for development and redevelopment is presented. Two alternatives for a transit corridor design are explored and the preferred one identified.

Section II looks at the implications of the corridor strategy on the physical design of the city at the district scale by showing how transit can be integrated into the fabric of the *districts* to strengthen them as vital, memorable parts of the city. It presents drawings that demonstrate how the transit corridor could serve as a catalyst for developing and redeveloping vacant and underutilized land in the variety of districts served by the corridor.

EXECUTIVE SUMMARY ON THE UNIVERSITY AVENUE TRANSIT CORRIDOR

As the core struggles to be a place of economic vitality and livability for a broad sector of its population, transit redesign and redevelopment has emerged as critical to the rebuilding of the urban core of the Twin Cities metropolitan region.

At the core of the work presented here is an assumption that transit service—its type, quality, and its service area—can greatly inform the decisions of policymakers, planners, designers, engineers, developers, and ordinary people as they give form and vitality to the city. Explicit in this approach is the argument that a competitive strategy to balance the outward surge of suburban development depends on the revitalization of a dependable transit service on permanent corridors.

PRINCIPAL RECOMMENDATIONS OF THIS DESIGN STUDY

This work examines the opportunity to improve the University Avenue service as such a permanent corridor. Because University Avenue has traditionally connected important destinations, the current service is one of the most successful in the Twin Cities. However, changing economic conditions in the districts along the avenue threaten its vitality. Transit-oriented redevelopment could be a solution.

Because long term investments in transit oriented development on this avenue would require incentives beyond the current tax abatement, several kinds of physical changes are recommended in this document:

- **Retrofitting the 120-foot wide portion University Avenue Corridor as a dedicated bus transitway.** In the analysis of the physical aspects of the Avenue, it became clear that the pattern created by the late-nineteenth century street cars could be adapted for the twenty-first century rebuilding of the street and the city around it.
- **Rezoning infill parcels to revitalize street frontages and reduce requirements for off-street parking.** Currently both cities are in the process of re-examining commercial zoning categories and their locations. Overlay districts are one way of encouraging development of pedestrian-friendly commercial uses that would support transit.
- **Urbanistic ideas for infill development, including an emphasis on medium-to high-density residential and mixed use retail and office.** University Avenue is already a job corridor, but it might also be an important high density residential corridor with improved bus service and with access to commercial services along the Avenue and amenities in nearby neighborhoods.

These physical ideas seem well-supported by the demographics and many of the cultural, political and economic issues that need to be addressed in concert with transit redesign efforts. This integrated approach is critical to the rebuilding of the core of the Twin Cities.



Sprawl has followed the distended network of new highways.



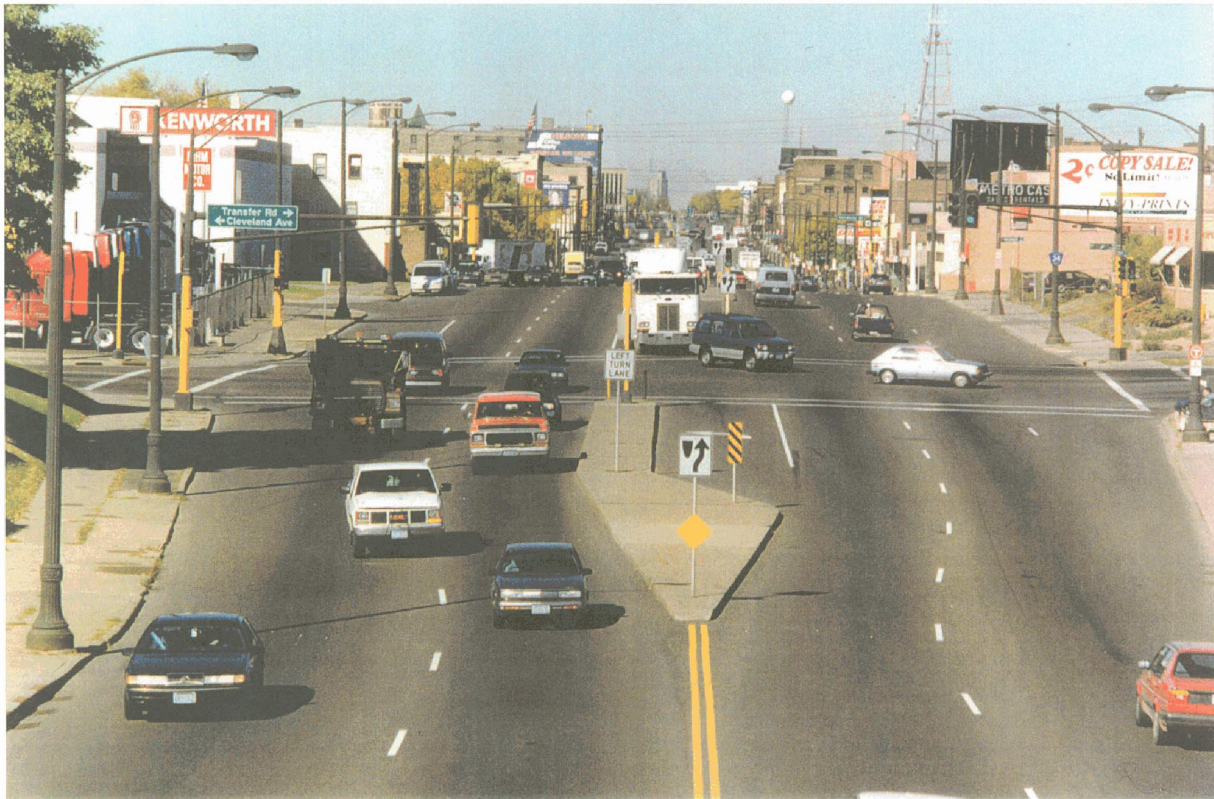
The dedicated transitway can increase operational efficiency and encourage development around stations along the corridor.



The development of attractive market-rate housing high density infill projects along and near University Avenue is critical to successful city rebuilding for transit.

SECTION I

CORRIDOR SCALE



CITY

R E B U I L D I N G

THE UNIVERSITY AVENUE BUS CORRIDOR

BUS CORRIDOR AS ARMATURE OF CITY REBUILDING

Transit-oriented planning, design and development is environmentally conscious. It reduces sprawl and dependency on the automobile. It reduces overall dollar costs while providing both an economically functional system and the social and physical connections that characterize the democratic public realm. Jane Holtz Kay has recently argued in her book, *Asphalt Nation*, that the U.S. subsidies for cars are seven times those for mass transit. Meanwhile elderly and young people not served by transit become virtual prisoners because they cannot drive.

Coordinated planning that considers transit in relationship to the biotic and physical environments protects quality and provides urban form while it structures growth and defines the spatial qualities of urban livability. In order for transit to be a successful component of city rebuilding, it must connect important destinations. It must be efficient and physically legible. Bus lines must be located on identifiable corridors that provide definition in the city and give access to important districts.

In built up urban areas of the city such as the urban core of the Twin Cities, transit can be an important element in rebuilding. A transit corridor provides an armature for pedestrian-accessible urbanization.

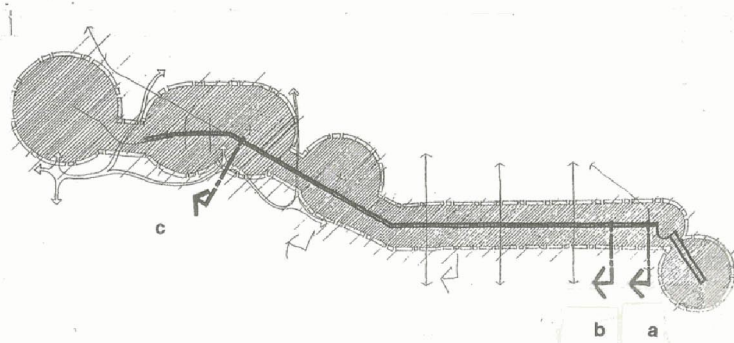
The location and character of well-defined transit corridors are related to the types and intensities of development clustered around important stops and stations.

Urban corridors where land uses are changing from industrial production to other uses (including residential and commercial) can become successful transit corridors. University Avenue presents many of these opportunities to rebuild the city.

UNIVERSITY AVENUE: DOWNTOWN TO DOWNTOWN

The focus of this study is University Avenue, formerly a state highway corridor that has historically connected Minneapolis and St. Paul. University Avenue's role as the direct connection between the two cities has been replaced by the Interstate highway system. Today, University Avenue is an east/west metro arterial, intersected by key north / south arterials connecting several different districts.

The rebuilding of the avenue as a public place, can be achieved by reintroducing street transit. The re-establishment of transit corridors on streets such as University Avenue guide decisions about both public and private investments. Part of the solution for such corridors is to remake the multi-modal environment that gave rise to such corridors. If zoning and other urban legal strictures can be coordinated with transit reconstruction, the fullest potentials of city rebuilding can be realized on University Avenue.



a. University at Rice



b. University at Western



c. University at SEMI (Southeast Minneapolis Industrial Site)

THE URBAN CORE OF THE METRO AREA

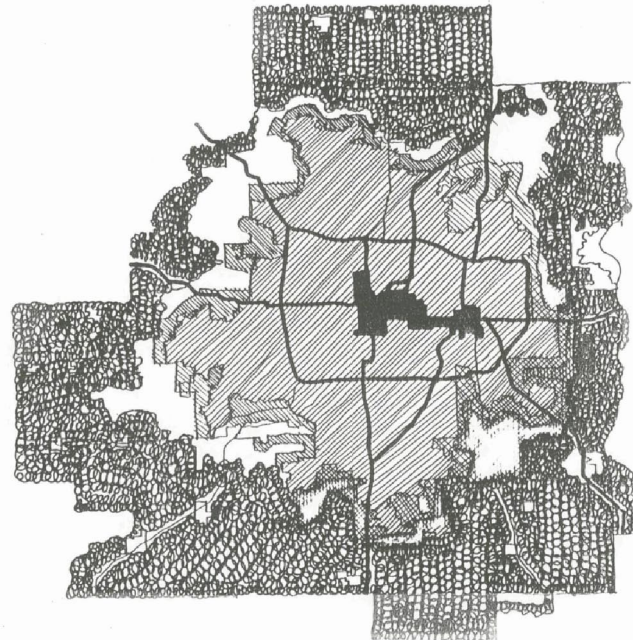
Much city planning and development effort has been focused on the two downtowns, Minneapolis and St. Paul. Both cities have considerable employment to protect, and the recent high profile political attractiveness of professional sports has occupied a considerable amount of media coverage. Riverfront planning and development, perennial themes in both cities, have also garnered attention as some projects have come closer to fruition and as both cities have intensified their public improvements along the downtown riverfronts.

Paradoxically non-downtown sections of the cores of the two cities have been left largely to neighborhood scaled initiatives. Corridors that cross and connect neighborhoods have been supported by city-coordinated, but neighborhood-based programs such as the Neighborhood Revitalization Program (NRP) in Minneapolis, and the neighborhood and local business-based STAR (Sales Tax Revitalization) program in St. Paul.

The Metropolitan Council is technically concerned with such trans-jurisdictional corridors as University Avenue. State legislation such as the Livable Cities programs directs efforts at the problems of such neighborhoods, but rarely deal with streets. The only consistent, continuous character of treatment of such corridors relates to their use as transit corridors (or as state or federal highways.)

A transit corridor such as University Avenue, in the center of the urban core area identified by the Metropolitan Council, connects key employment centers to established neighborhoods. The University Avenue transit corridor should relate to the highest and best new uses that generate jobs, while supporting and creating livability within the city. It can and should be the best opportunity of future city rebuilding.

This corridor can be designed in a way to maximize the use of land and reduce dependency on the auto and associated costs of sprawl. Or it can be developed in a way to continue present patterns that do not distinguish between urban and suburban locations. These patterns will necessitate continuous expansion of transportation networks into rural lands.



The expanded transportation corridor around University Avenue lies at the center of the Metropolitan Area and is located at the core of the Metropolitan Growth Strategy.

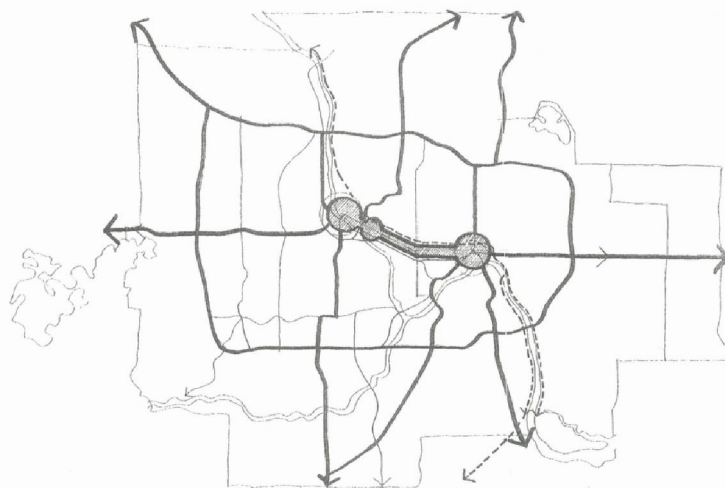
JOBS AND SERVICES

Part of the transit solution will be to provide the kinds of land uses that generate jobs and services that are parallel to those in the suburbs. At urban historic densities redevelopment of mixed uses can revitalize this corridor. In order for this to happen, missing principal ingredients in urban development must be added to the current mix in a coordinated fashion that crosses levels of government, agencies and public/private development:

- Transit-oriented zoning, including new parking initiatives
- Transit oriented development incentives, including clearly defined zoning bonuses, tax increment financing (TIF), for transit-related services and conservation and construction of transit-friendly development
- Transit system re-design, including a fixed busway and stations
- Legislated incentives for lending to mixed use development and job creation
- Redesignated street geometries, lighting, furniture, etc.

The University Avenue study area lies at the center of the map of the metropolitan growth strategy outlined by the Metropolitan Council as shown in the upper figure.

University Avenue parallels I-94 at the heart of the Twin Cities metropolitan freeway infrastructure as seen in the lower figure.



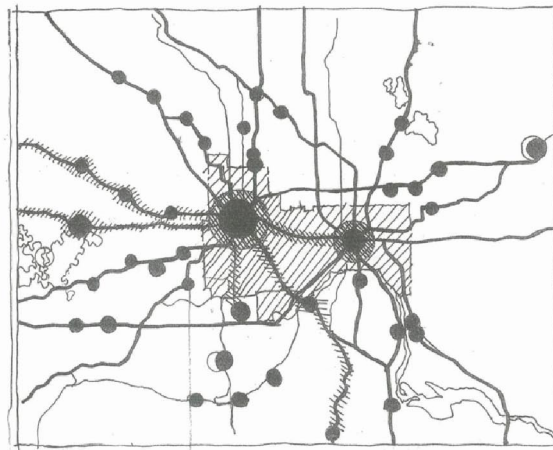
RE-ESTABLISHING A METROPOLITAN LATTICE OF TRANSIT

In the Twin Cities, the historic evolution of transit has been primarily predicated on the development of important street corridors. These streets carried the streetcar system established by Thomas Lowry's company, Twin Cities Rapid Transit Company. Heavy rail commuter rail connections to outlying towns have not figured importantly (until the present time) in the development of the metropolitan area.

Without a subway system, the organic connectivity of a subterranean system has also not developed. With the removal of the street rails, and the use of buses, corridor hierarchy has been almost obliterated. What are the spatial patterns of this historical evolution and how might the future be designed?

Mixed use corridors and linear/nodal transit - *Past*

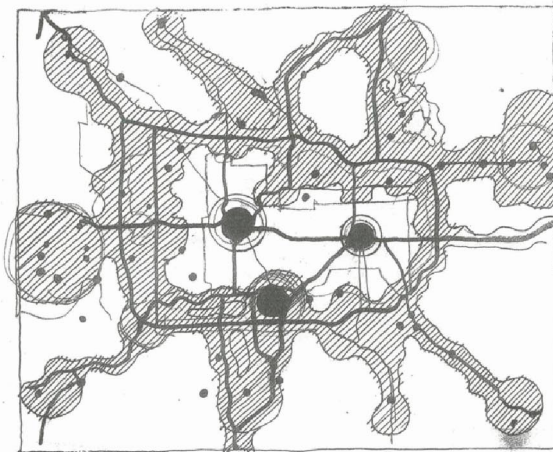
Nodal development along transit lines established direction, temporality, type and intensity of movement. Movement at grade defined a corridor in relationship to other corridors; in gridded cities, this corridor building created a recognizable lattice. Historic trolley lines, and the national railroad development exemplify this pattern, which maximizes transit investment in a well utilized, identifiable system. The electrical and rail infrastructure (including trolley bus wires) have often sustained this historic pattern in other cities.



Fragmented corridors and dispersed transit - *Current*

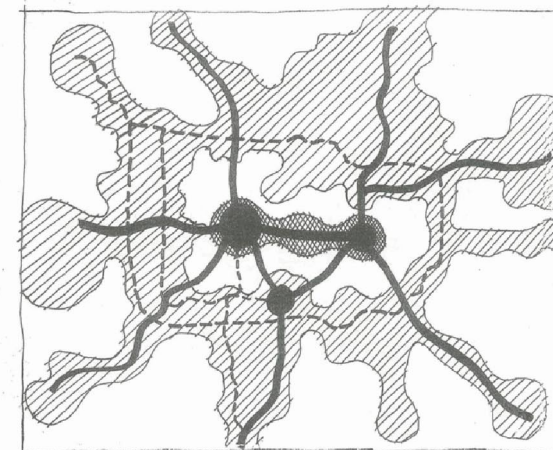
Fragments of historic nodal development along linear routes have been continually replaced by scattered development related to the private auto. Transit needs to be diverted from direct routes to serve this footloose, totally scattered and dispersed development. The character and hierarchy of streets as transit lines are progressively diminished.

Contemporary busways, such as the University of Minnesota Transitway, have concentrated on movement of buses from point to point. While establishing corridors, they have not necessarily provided urban legibility and transit oriented redevelopment opportunities because they have not been well-related to new or existing street patterns nor have the stops become planned locations for redevelopment.



New transit corridors and the metropolitan lattice - *Future*

As dispersed locations become impossible to serve efficiently by transit, highly specialized transit lines connecting specific points, such as the U of M transit line, and the suburban bus lines, suggest that careful surgery needs to be done to rebuild key corridors in the urban lattice. University Avenue presents an important opportunity to rebuild a corridor that both connects key locations and provides new mixed use--commercial service, retail, high-density housing, and institutional--development potentials that can be shaped by transit stations.



STUDY CORRIDOR CHARACTERISTICS

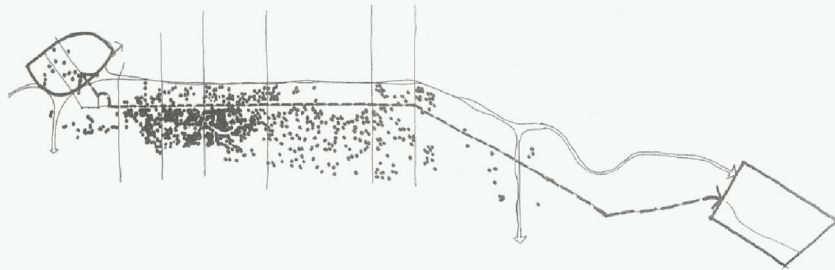
HISTORICAL PATTERN 1898

Concentrated development along University Avenue occurred only near the downtowns and at some key intersections. The rising influence of the Minneapolis mill district following the boom years of the 1880s is seen in the development between the corridor and the Mississippi River. The Hill bridge over the Mississippi also solidified the presence of the city and created the expanded corridor parallel to University that still exists today.



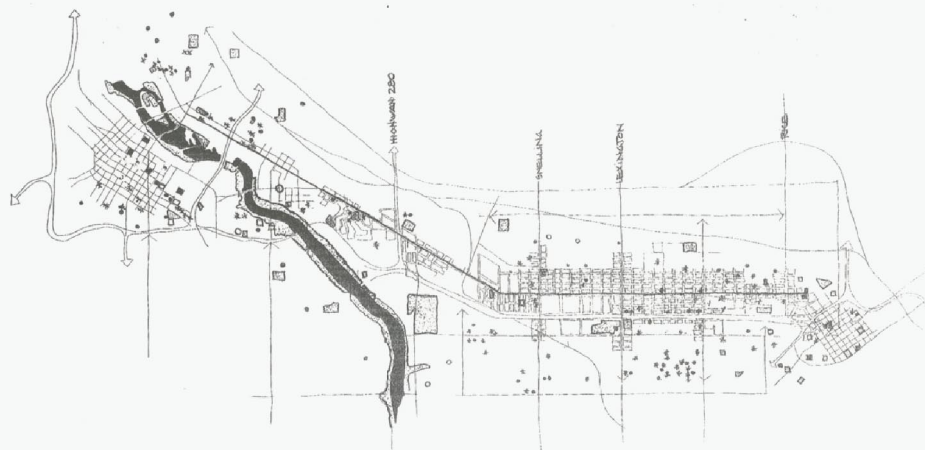
TRANSIT DEPENDENCY/ WELFARE RECIPIENTS

The corridor represents a unique asset because it connects key economic generators with neighborhoods. There are also large numbers of transit-dependent people on or near the corridor. In St. Paul many households with Aid to Families with Dependent Children (AFDC) are located near the corridor. With current changes in the welfare system underway, many of these families will be seeking employment that could be provided by job development along University Avenue. Transit corridor development can ease this transition from welfare to work while keeping commuting distances down and supporting neighborhood-based economies.



AMENITIES

Besides the two downtowns, the State Capitol, the University and the Midway marketplace, a number of amenities and services are located along the University line. There is a branch library at Lexington, a cluster of art related galleries and shops at Raymond, a number of ethnic stores and restaurants near Western, the Amtrak station at Cleveland, and a community center at Malcolm. Many churches and some schools dot the Saint Paul neighborhoods, both north and south of the line. Lake Iris Park, near the Fairview intersection, provides open space, and Lexington Parkway is an important linear connector between the corridor and the Mississippi River. However, it carries large volumes of traffic. There is generally a shortage of open space directly on the Avenue.



Amenity Map

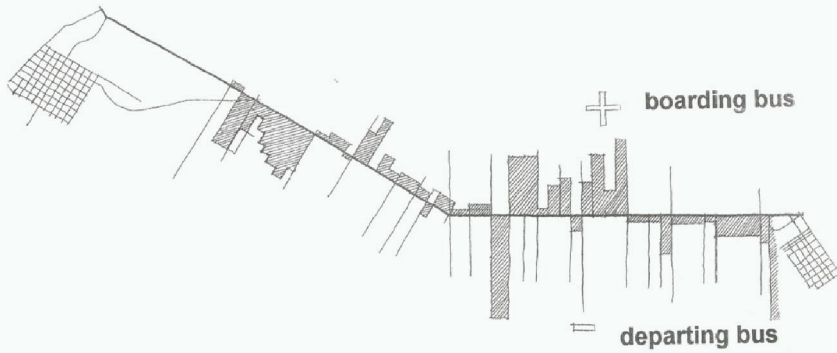
- Park
- School
- Post Secondary
- Church
- Institution (City Hall, Library, etc.)
- Hospital

STUDY CORRIDOR CHARACTERISTICS

CONTD.

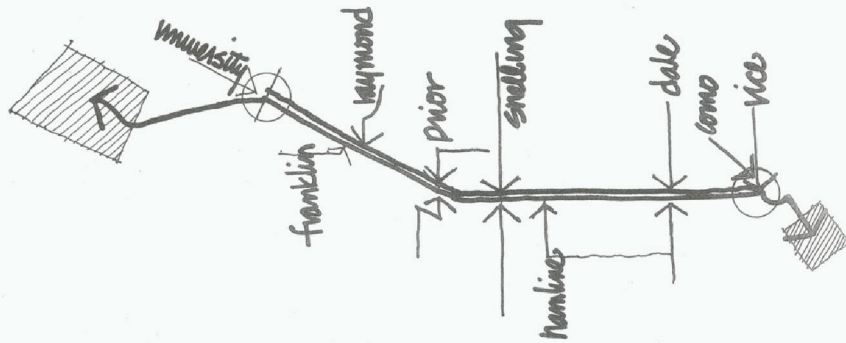
BUS RIDERSHIP

The University Avenue line, the 16A, is the most successful service in the Metro system. Although it connects downtown St. Paul to downtown Minneapolis, few riders take the entire journey on this line. The Interstate 94 route is used for this purpose. Rather riders on the 16 routes travel from intermediate points to important destinations and to the University, the Capitol, the Midway and the River.



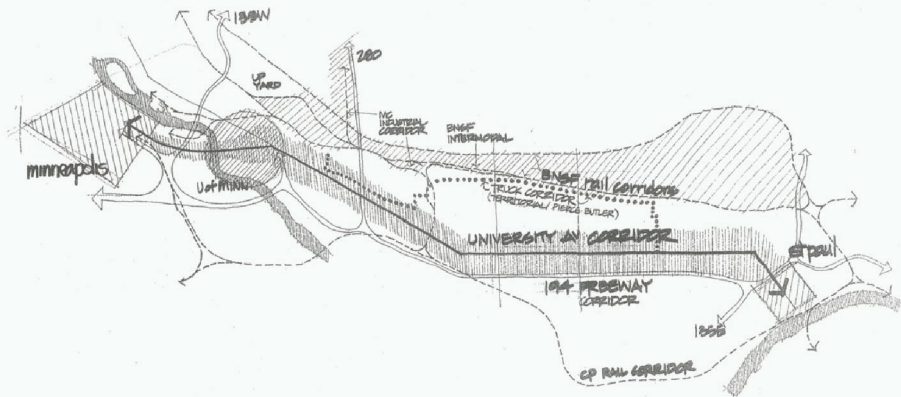
CONNECTING ROUTES

Besides connecting with a number of lines in the downtowns, several routes cross the University line between the campus and the Capitol providing north-south linkages to neighborhoods (and to other east-west lines.) The major intersecting routes cross at Franklin, Raymond, Prior, Snelling, Hamline, Dale, and Rice.



INTERMODAL SYSTEMS

The area at the central part of the corridor (the Midway to the 280 Gateway) is well served by a variety of transportation modes, including heavy rail, intercity trucking and automobiles. Main and local rail service are located to facilitate intermodal exchanges with trucks in warehouse and industrial areas. Trucks have access to the corridor and nearby areas from the Interstate system and Highway 280 as well as from key arterials such as Snelling and Fairview. Trucks use the Pierce Butler Route and other internal routes within the expanded corridor to reach key intersecting arterials such as Snelling and Fairview. This truck traffic, which is critical to the vitality of the expanded corridor, places constraints on the viability of University Avenue as a pedestrian-friendly transit street.



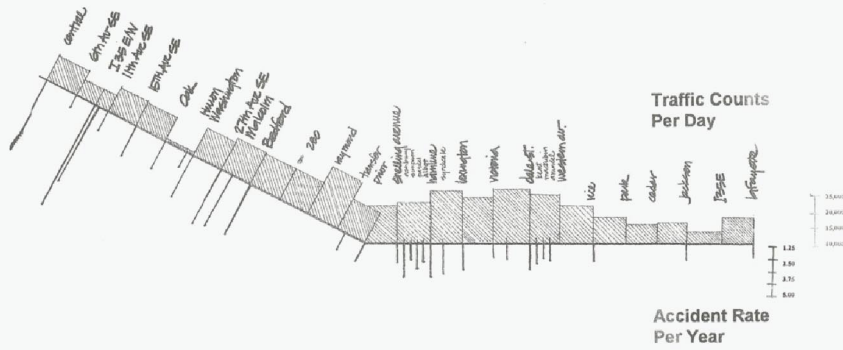
STUDY CORRIDOR CHARACTERISTICS

CONTD.

TRAFFIC COUNTS / ACCIDENT RATES

University Avenue is used by buses, automobiles, and trucks. The stoplight meters on the I-94 ramps have recently increased the automobile traffic on the Avenue. Truck traffic is concentrated in the industrial area west of Snelling and east of the University of Minnesota.

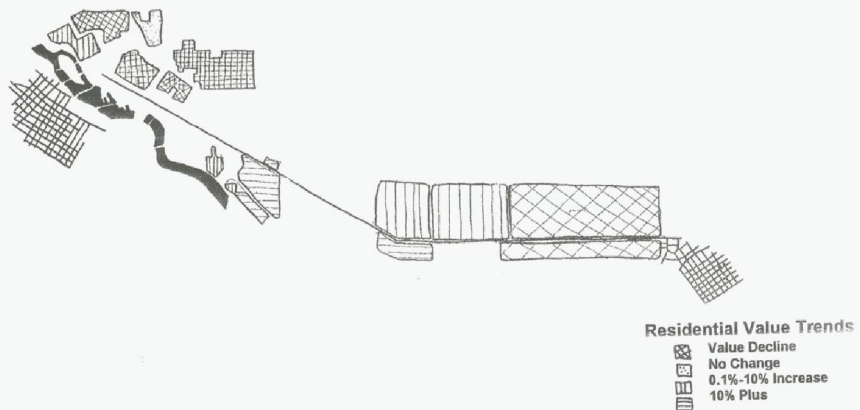
The highest accident rates are in Minneapolis from the Bedford intersection to Central Avenue, just west of downtown. In St. Paul accidents are concentrated in a cluster of intersections in the Midway and between Dale and Western.



REAL ESTATE VALUE CHANGES

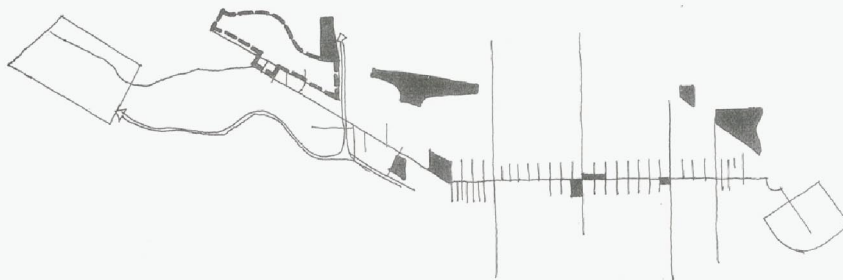
Although many neighborhoods in Minneapolis have experienced declining real estate values of 10% or more, this decline has not occurred along University Avenue. Prospect Park continues to show very high values, and houses in this neighborhood tend to sell very rapidly, often in a day or two.

Between 1992 and 1996, houses in St. Paul neighborhoods along University Avenue, west of Snelling showed some increase -- from flat growth to 20%. East of Hamline, however, it is a different story where decreases of 10% are seen, especially south of the corridor.



VACANT LAND

Many of the best opportunities for redevelopment in the central core occur along the University Avenue corridor. There are many vacant and underutilized parcels along the Avenue, a trend that marks the removal of automobile dealerships and industry and a general pattern of disinvestment. In St. Paul there are many underutilized parcels that are a product of these patterns and the parcels are often larger than would usually occur in an urban neighborhood. Possible redevelopment schemes involving urban housing in the context of other uses seem possible given this pattern. The Southeast Minneapolis Industrial Area (SEMI), shown here as a dashed line enclosure, is as large as downtown Minneapolis. It borders the University of Minnesota and Prospect Park, suggesting possible land use changes from industrial to mixed use.



LAND USE & ZONING CONSTRAINTS TO REDEVELOPMENT

There are several categories of constraints to redevelopment of University Avenue as a mixed use street.

- Other than the Midtown/Midway and SEMI industrial areas, existing land uses are predominantly commercial, with an emphasis on warehousing and strip commercial development. Some housing and important services are interspersed along the avenue, including a medical facility, a YMCA and various state offices.
- Recent commercial strip redevelopment has been in the form of big boxes, generally retail but also mixed warehousing and office.

Current land use along the Avenue has been largely framed by the commercial and industrial zoning districts that dominate.

In St. Paul, the B-3 (mixed commercial) zone stretches nearly its entire distance, but penetrates only a half-block deep, except at the Midway Regional Shopping Center. In terms of permitted uses, the B-3 category seems generally suited to many of the businesses that have been recently developed, but it does not specifically encourage transit-related uses that might be part of redevelopment proposals based on the new tax incentives.

Multi-story buildings with windows and brightly illuminated facades are virtually not allowed in the B-3 zone. Older multi-story loft and office buildings along the avenue could not be built today. Currently any structure over thirty feet must be set back from the right of way a corresponding footage. In order to satisfy off-street parking requirements parking is set out at the fronts of the buildings, in an inexpensive, but conventional strip mall format.

While this ordinance allows for the provision of parking on variable standards (based on those developed by the Urban Land Institute) depending on the mix of uses in a structure, and of time-shared parking spaces for complementary uses, for most the baseline requirements when combined with the setback requirements have usually precluded uses that create pedestrian-friendly street facades. Retail uses, for example, must provide 1 space for every 225 square feet of gross area. Restaurants are even more demanding with one space for every 125 square feet of gross area.

One proposal in St. Paul is to develop a new category that would provide incentives for office and service uses in combination with related multiple unit dwellings, and institutional and retail services.

This proposal, like all proposals for commercial and high density housing categories would, however, need to examine closely the off-street parking requirements, and setback requirements for buildings over 30 feet in height.

One of the opportunities lost in this application of a suburban model to an urban block is the access to and from the backs of buildings through alleys. St. Paul's Grand Avenue infill redevelopments have been particularly successful in inserting small parking lots at the sides and at the rear of buildings, accessible from alleys. This situation potentially creates tensions with adjacent residential properties; however, one positive effect of the alley entrance is the care that is given to the design and maintenance of alley entrances.



Older multi-story structures at the Raymond Avenue intersection have been bolstered with some improvements to the pedestrian environment. This corner demonstrates that cars and trucks can function on a transit street.



Suburban style infill development provides off street parking in front of the building with little concern for the pedestrian environment.

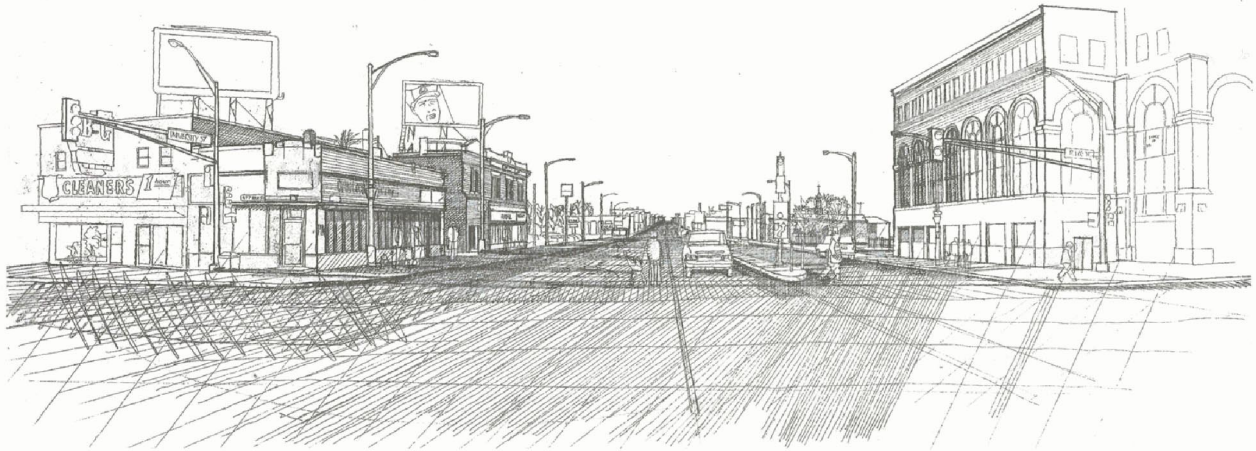
STUDY CORRIDOR: DEDICATED TRANSITWAY OR 'MINI-FREEWAY'?

PREMISES/OPPORTUNITIES

University Avenue is at a critical point in its history. It has been and remains many things, including a major truck and automobile route in addition to being one of the most successful bus routes in the Metro Transit system, the 16.

The 16 routes link downtown Minneapolis to the University, the Capitol and to downtown St. Paul. As noted, they also serve neighborhoods and districts, such as the job-rich Midway.

Because University Avenue is distinguished by the Capitol and institutions such as the University of Minnesota, it should also be a grand boulevard, the visual signature corridor of the Twin Cities and the state.



It has in the past been a trolley line, the residual aspect of which is that utilities were built well away from the centerline where the roadbed for the tracks lies.

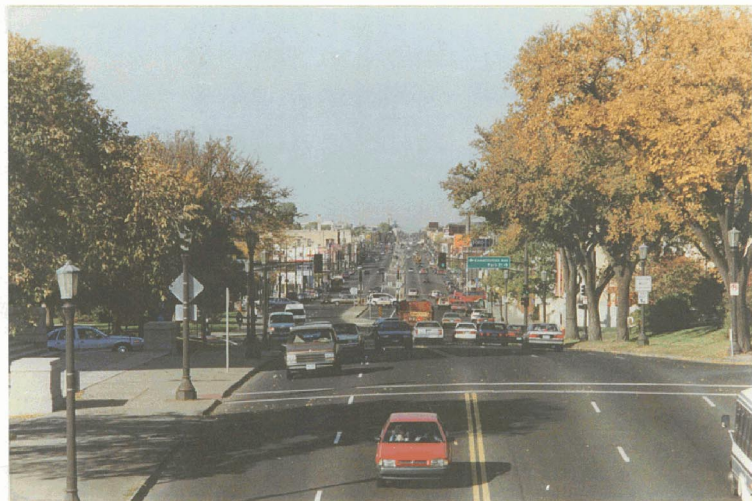
Existing 120-foot right of way

University Avenue has been a state highway, and as such, its geometry and its zoning have reflected its classification as an arterial street still carrying a large amount of truck traffic. As a truck arterial, the level of importance placed on the development of an environment on the Avenue for pedestrians has been significantly reduced.

While it remains a front door to retail, commercial, and industrial uses, the current placement of the front door recognizes the hegemony of the automobile and the truck on the Avenue.

Today, as a major arterial parallel to Interstate 94, University Avenue increasingly receives overflow traffic from the freeway system. Large segments of the Avenue could become a 'mini freeway' serving as the overflow of parallel Interstate 94.

A premise of this study is to use part of this public resource as dedicated busway. University Avenue's 120 foot right of way is also wide enough to accommodate a dedicated bus transitway between the University of Minnesota and the State Capitol. This busway would require the use of lanes that currently carry traffic or provide separated turning movements. This premise understands that the arterial designation of University Avenue would be somewhat modified while the important functions of moving certain kinds of traffic, especially trucks, would have to be retained.



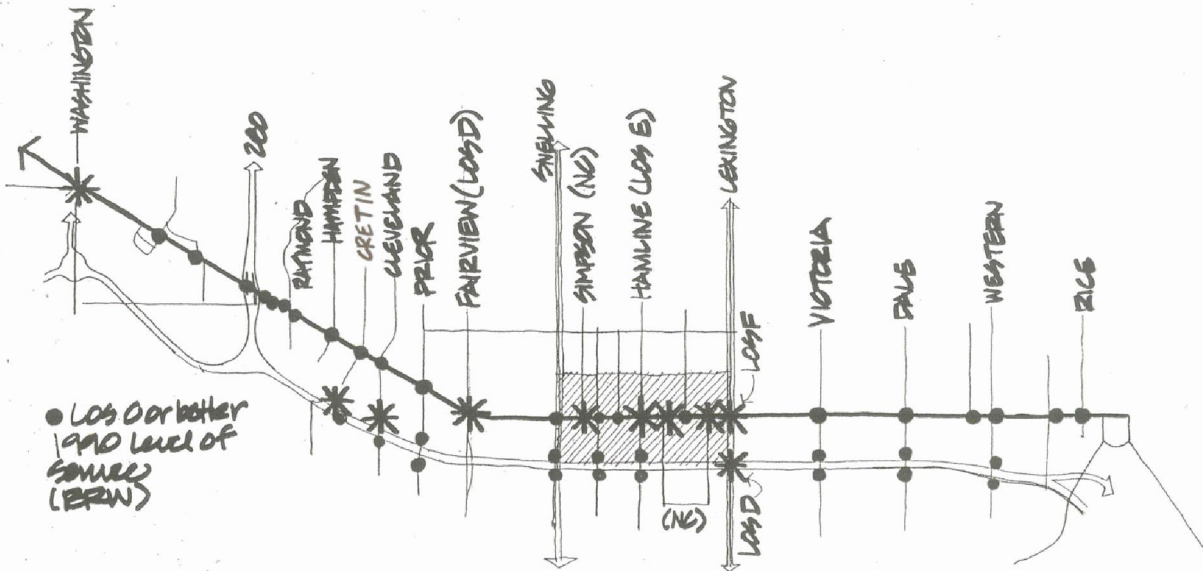
TRAFFIC CONFLICTS WITH DEDICATED TRANSIT

Traffic problems vary considerably along the length of University Avenue.

Problem intersections are concentrated between Snelling and Lexington where the levels of service (LOS) are less than adequate (C levels of service are considered adequate).

A conflict for any dedicated busway would occur at major intersections where **both** left turn lanes would have to be maintained. Traffic turning movements would have to cross the dedicated busway (in both directions).

Two options for dedicated busways are examined in light of these conflicts:



Turning movements at critical intersecting streets such as Cretin-Vandalia are needed to provide access to the industrial uses north and south of the Avenue and to the freeway system. Levels of service already identified as subpar, will be compromised by station locations at these intersections. In some instances in this study, stations have been pulled away from intersections to insure that levels of service do not deteriorate further.



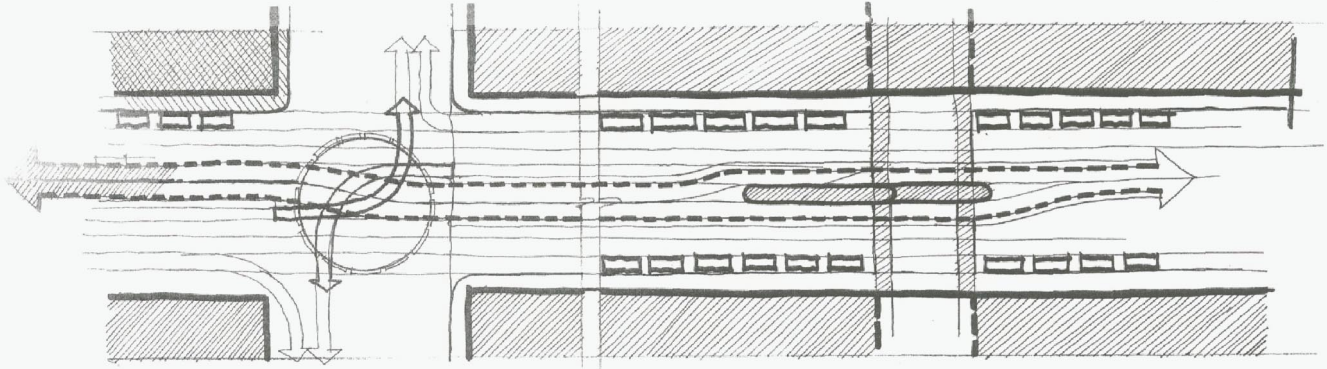
**OPTION ONE:
DEDICATED BUS TRANSIT WAY
Down the Center of University Avenue**

The first option is to place a dedicated busway down the center of University Avenue. This scheme would combine both lanes of bus traffic and locate stations as large pedestrian islands in the middle of University Avenue.

This arrangement is similar to the trolley line that once ran down the Avenue.

Option One has been chosen for further development in this study.

Station in center of University Avenue located at midblock or at minor intersections with one or more left hand turn movements eliminated (4 lanes of traffic or approximately 44 feet between station curb and University Avenue curb)



The dedicated bus corridor crosses two left hand turns at one spot; left hand turn lanes no longer face each other

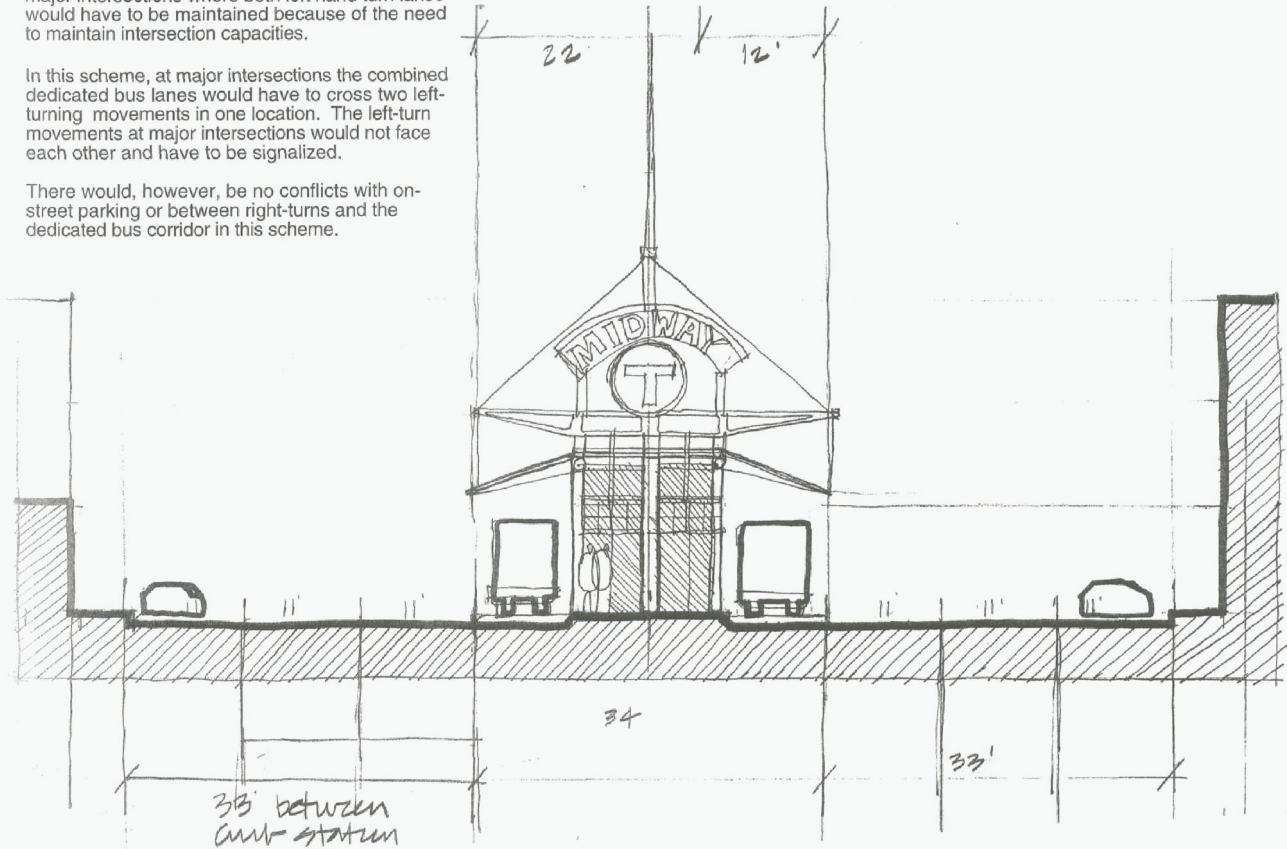
To maintain all left hand turn movements at major intersections, stations are moved away from corners.

CONFLICTS:

A conflict for any dedicated bus corridor would be at major intersections where both left hand turn lanes would have to be maintained because of the need to maintain intersection capacities.

In this scheme, at major intersections the combined dedicated bus lanes would have to cross two left-turning movements in one location. The left-turn movements at major intersections would not face each other and have to be signaled.

There would, however, be no conflicts with on-street parking or between right-turns and the dedicated bus corridor in this scheme.



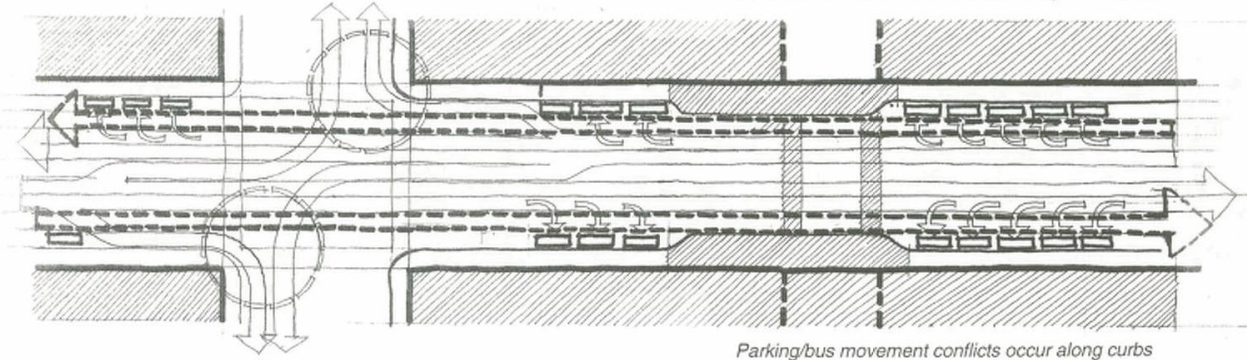
**OPTION TWO:
DEDICATED BUS TRANSIT WAYS
Along edges of University Avenue**

The second, less feasible, option is to place a dedicated bus transitway on each side of the street, using one lane currently devoted to traffic on each side, while retaining the parking and turn lanes that now exist along both north and south edges of the Avenue.

Stations would serve the dedicated busway by eliminating the parking lane and bumping the curb edge out to reach the bus lane.

- The dedicated bus corridor lanes cross:
- two left hand turn movements
 - two right hand turn movements

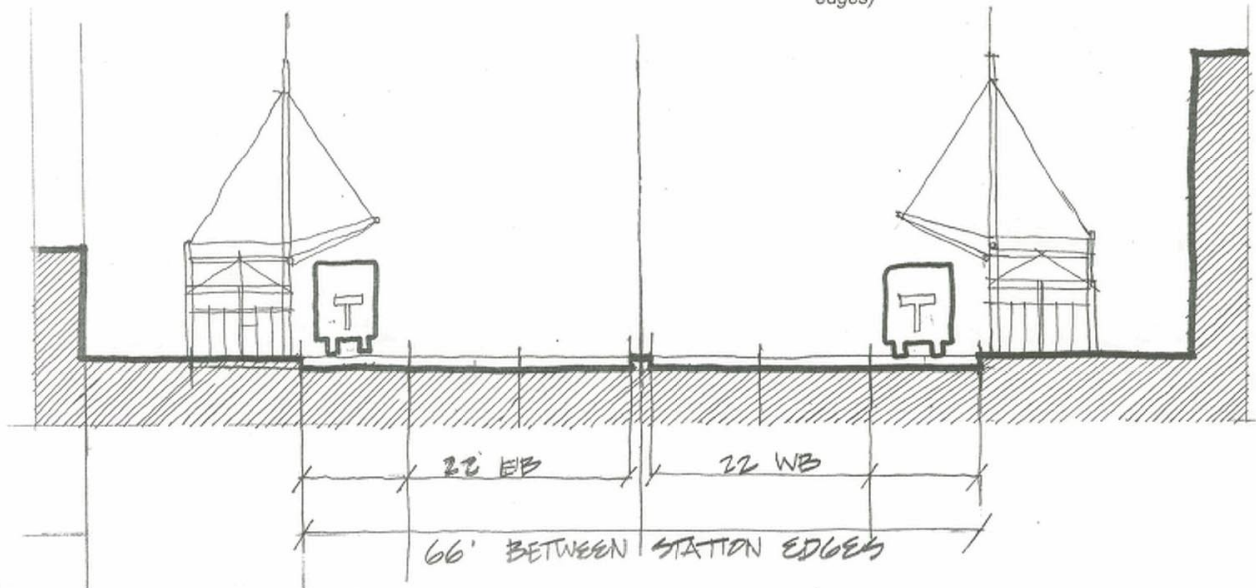
To maintain all left hand turn movements at major intersections, stations are moved away from corners



CONFLICTS:

In this case both north and south lanes of the dedicated bus corridor would have to cross an oncoming left hand turn lane plus a right hand turn from the adjacent lane moving in their direction. In this scheme, east and west bus traffic on the dedicated transitway would also interfere with cars parking along University Avenue. This conflict would be particularly serious in areas where on-street parking would be encouraged to support existing and future development. From a traffic safety perspective, the movements to and from parking spaces across the busway and into traffic would be an unfamiliar (perhaps unique) circumstance. No precedents for this idea could be located.

Stations bumped out to reach dedicated bus corridor lanes (6 lanes or approx. 66 feet between station edges)



DEDICATED BUS TRANSITWAY

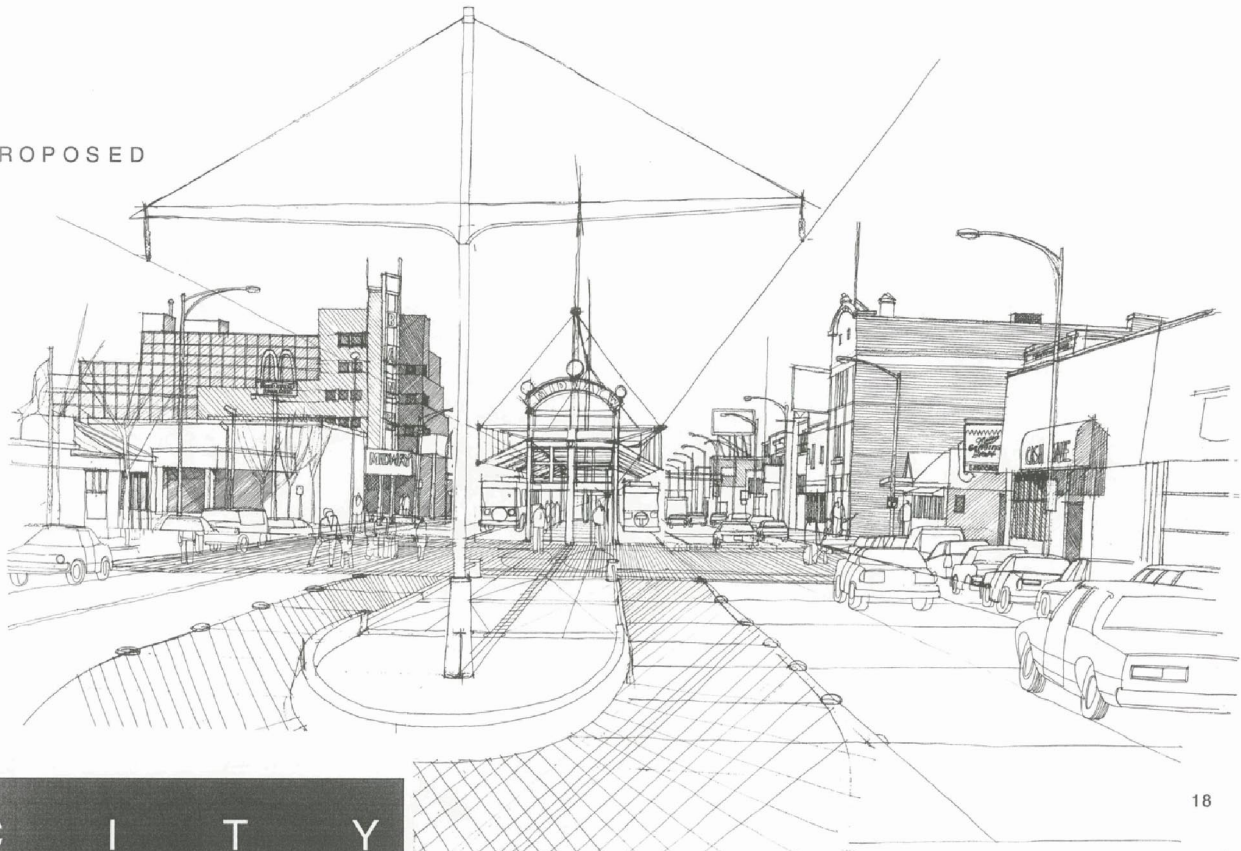
While any transit use on University Avenue is desirable, the current trend of changing uses on the Avenue seems to indicate the opportunity for enhancing the transit service.

- The University Avenue busway would serve as an example of a transit alternative in the heart of the metropolitan region.
- A dedicated bus transitway would help to move buses efficiently because there would be fewer conflicts with cars and trucks.
- More identifiable stations located at major nodes of each district would serve existing transit use and new stations would be coordinated with new mixed use development to increase transit ridership.

EXISTING

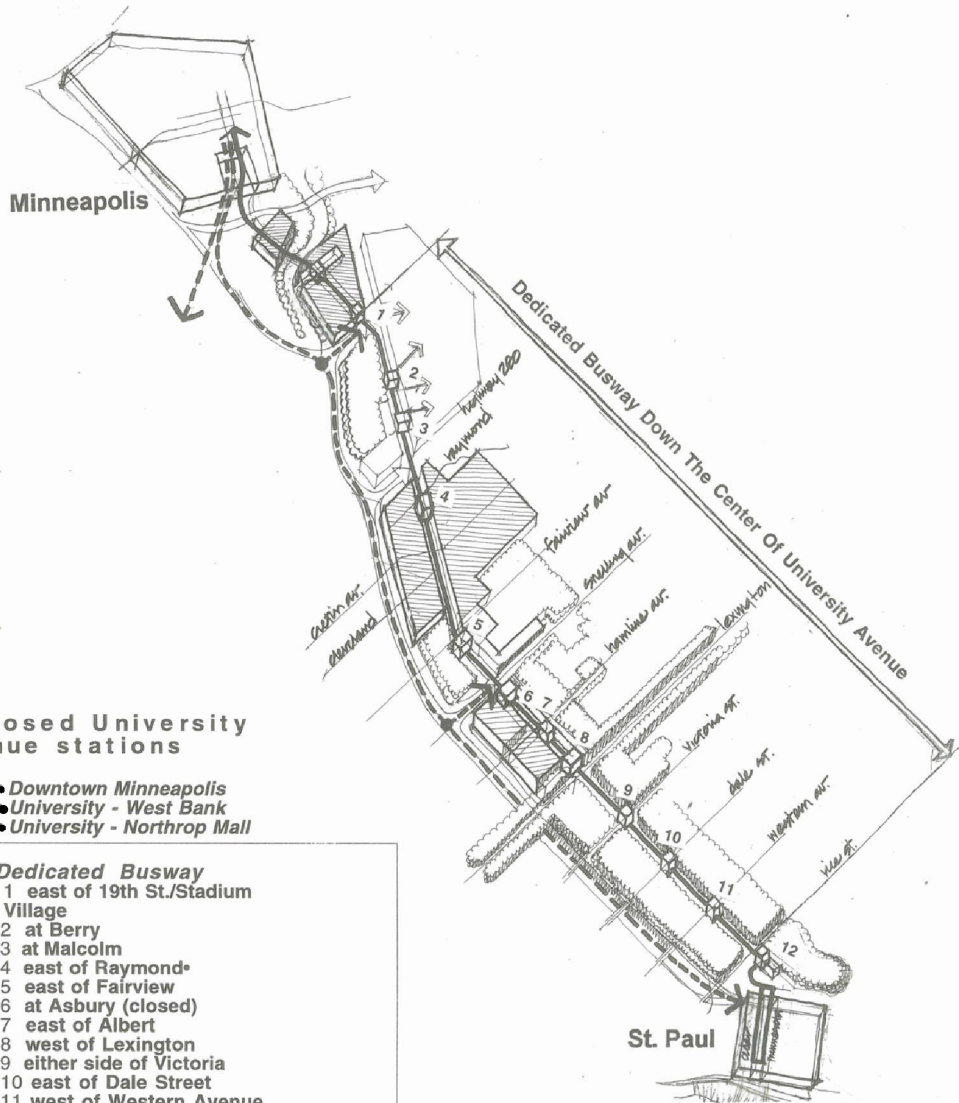


PROPOSED



STATIONS

Stations are needed to make the busway visible. Stations differ from stops in that they provide shelter and significant amenities for transit riders. Stations, though fewer in number than stops, provide faster service.



Proposed University Avenue stations

- Downtown Minneapolis
- University - West Bank
- University - Northrop Mall

- Dedicated Busway**
- 1 east of 19th St./Stadium Village
 - 2 at Berry
 - 3 at Malcolm
 - 4 east of Raymond
 - 5 east of Fairview
 - 6 at Asbury (closed)
 - 7 east of Albert
 - 8 west of Lexington
 - 9 either side of Victoria
 - 10 east of Dale Street
 - 11 west of Western Avenue
 - 12 Capitol - east of Rice Street

- Downtown St. Paul

Flagstops are located between stations



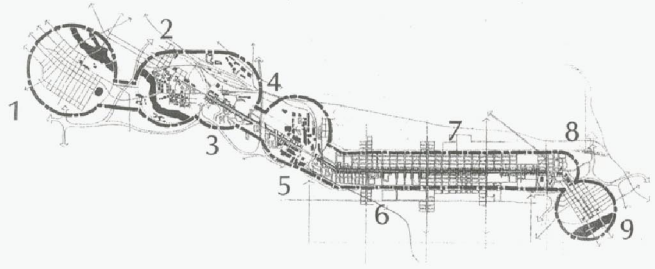
New shelters have been clustered in downtown St. Paul and begin to suggest the importance of larger scale waiting areas that describe a permanent location or station.

SECTION II

DISTRICT SCALE

STUDY CORRIDOR DISTRICTS

- 1 Downtown Minneapolis
- 2 University of Minnesota/SEMI
- 3 Prospect Park/SEMI
- 4 Gateway
- 5 Midtown Jobs/ St. Anthony Park
- 6 Midway Regional Center
- 7 St. Paul Neighborhoods
- 8 State Capitol
- 9 Downtown St. Paul



1 Downtown Minneapolis

2 University of Minnesota / SEMI

3 Prospect Park / SEMI

4 Gateway

7 St. Paul Neighborhoods

5 Midtown Jobs / St. Anthony Park

6 Midway Regional Center

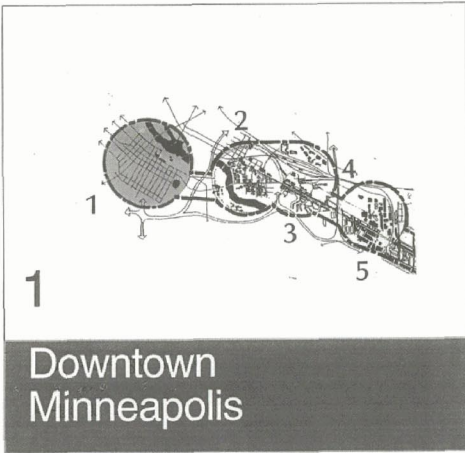
8 State Capitol

9 Downtown St. Paul

The 9 corridor districts contain a rich mix of complementary uses:

- educational institutions
- commercial
- industrial
- civic
- residential

This study focuses on a potential role for transit to link more effectively these uses and activities. The study also identifies ways in which new development can occur along the corridor in a way to support transit use and rebuild urban neighborhoods as pedestrian-scaled villages as opposed to new suburbs within the heart of the metro region.



1 Downtown Minneapolis



Issues

Downtown Minneapolis is a grid of bus service. Lines operate on nearly every major street in the downtown. Problematically, there is no difference between transit-oriented and ordinary vehicular and pedestrian streets. The transit design has treated the downtown as if it were a suburban area with no clusters of important destinations. Pedestrian-oriented streets such as Nicollet Mall no longer gather all of the major transit lines in one corridor. There is no clear hierarchy among east/west or north/south streets. As a result the hierarchy of transit and its relationship to important destinations or pedestrian zones is non-existent.

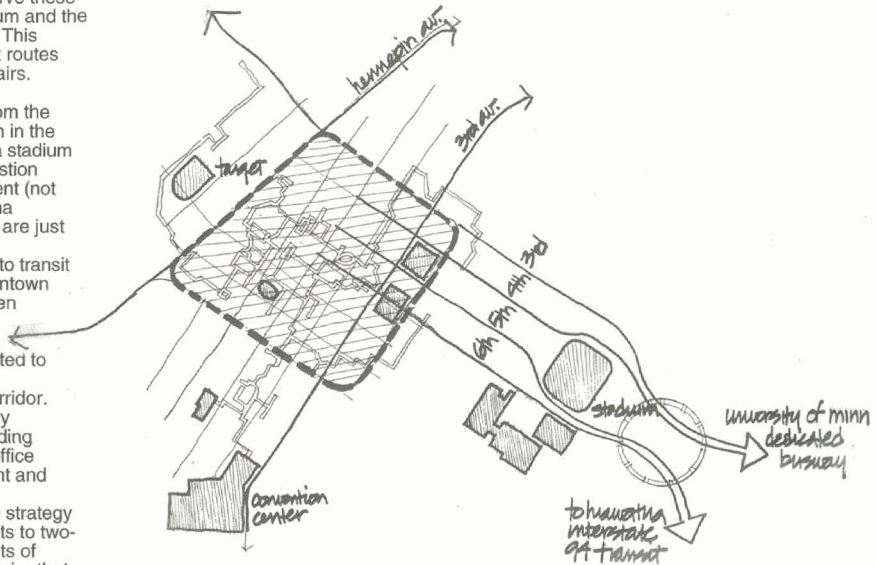
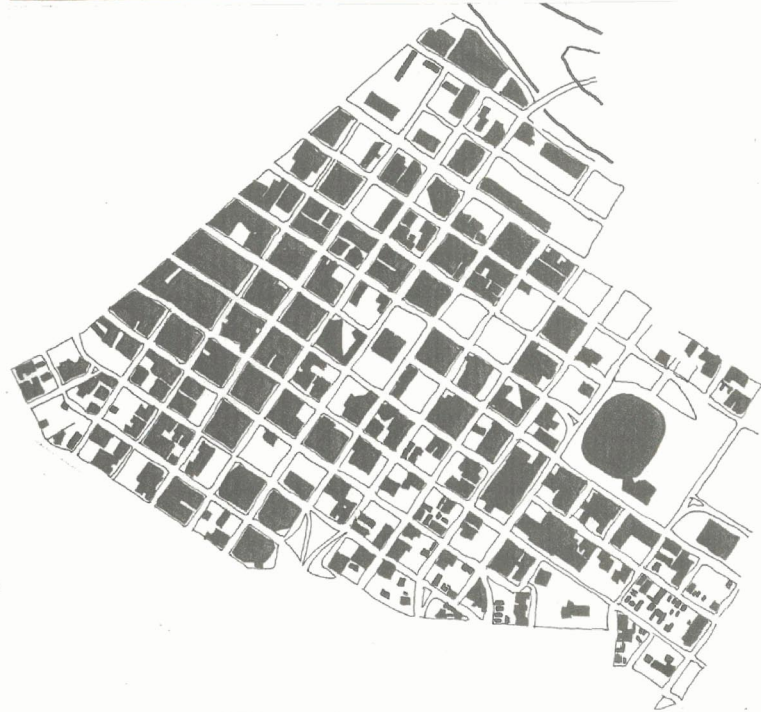
RECOMMENDATIONS

Downtown Transit Loop

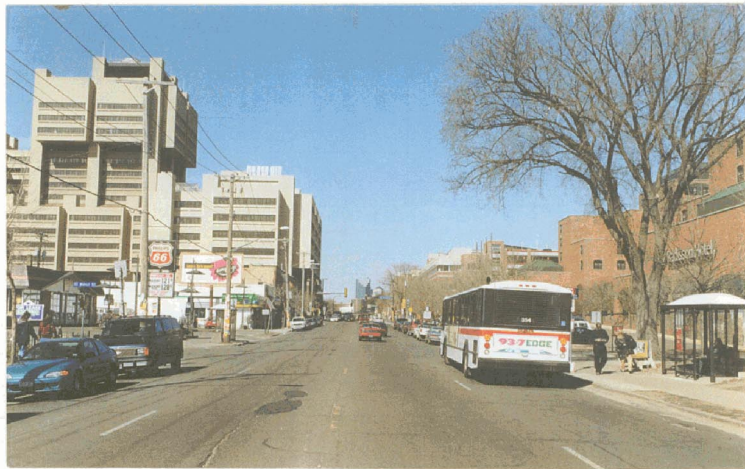
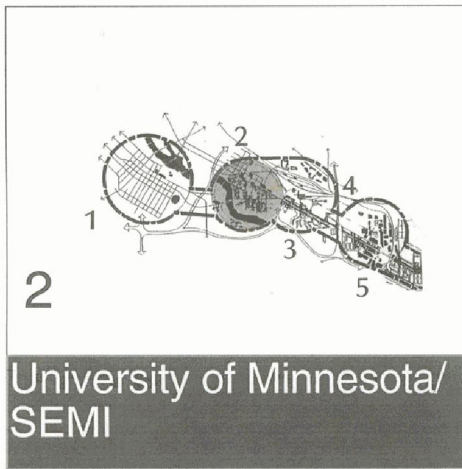
The skyway system has created a definite zone of sheltered pedestrian access. It defines an area that could be served by a ring or loop of transit service at its edges. The advantages of a loop system around the skyway core of downtown might also suggest that most of the east-west one-way pairs in downtown are acceptable. This premise assumes, however, that the skyways are treated as a public space.

In order to give transit definition and hierarchy back to the downtown, several other steps need to be taken:

- The University Transit Corridor should enter downtown along a route that links major destinations such as the Hennepin County Medical Center, City Hall, the Government Center, and the Metrodome. A major transit station should be located to serve these sites and the proposed new riverfront stadium and the Heritage zone along the Mississippi River. This strategy might suggest clustering east-west routes between 3rd and 7th, using the one-way pairs.
- Coordination with Hiawatha Transitway from the Airport to create a downtown transfer station in the 3rd to 7th zone; potential coordination with a stadium decision could help to relieve parking congestion during games while encouraging development (not parking lots) on transit streets. The Hiawatha Transitway and the proposed new stadium are just two of several initiatives currently under consideration that could help give definition to transit and serve to restore a hierarchy to the downtown street system. Some of the steps to be taken include:
- A downtown transfer station should be located to facilitate transfers between the Hiawatha Transitway and the University Transit Corridor.
- Creation of other identifiable stations at key east/west and north/south junctions, including coordination with existing and proposed office (Marquette and 2nd Ave. S), entertainment and retail development (Target Center/Block E/Warehouse District, Nicollet Mall). One strategy might be to return some north-south streets to two-way traffic, while keeping the transit streets of Hennepin and 2nd Ave. S. as one-way pairs that create the transit loop.



North-south transit would ring this zone (defined by the area enclosed by the dashed line). This loop would allow the skyway system to work to the pedestrian advantages for which it was designed.



Issues

The fragmented form of the University of Minnesota campus presents critical urban design issues from a transit perspective:

- It has at least three distinct campus districts:
 - *West Bank*
 - *East Bank* - Northrop Mall, old Stadium area and the Knoll
 - *The Southeast Minneapolis Industrial Corridor (SEM I) expansion/ parking/athletic area*
- These districts, which must be linked by transit in order to keep the campus a pedestrian-oriented environment, are defined at edges by arterial streets, including the one-way pair of University Avenue and 4th Street. These streets tend to divide the campus.
- Critical destinations have clustered on Washington Avenue because of its direct connection between the West Bank and the East Bank and to downtown Minneapolis. University Avenue has been sacrificed to automobile traffic, and the Dinkytown campus commercial district has suffered. Stadium Village, too needs revitalization.

RECOMMENDATIONS

This study has two different frames of recommendations for the University/SEM I district:

One:

Immediate designed interventions to create stations at important existing transit points along Washington Avenue.

Two:

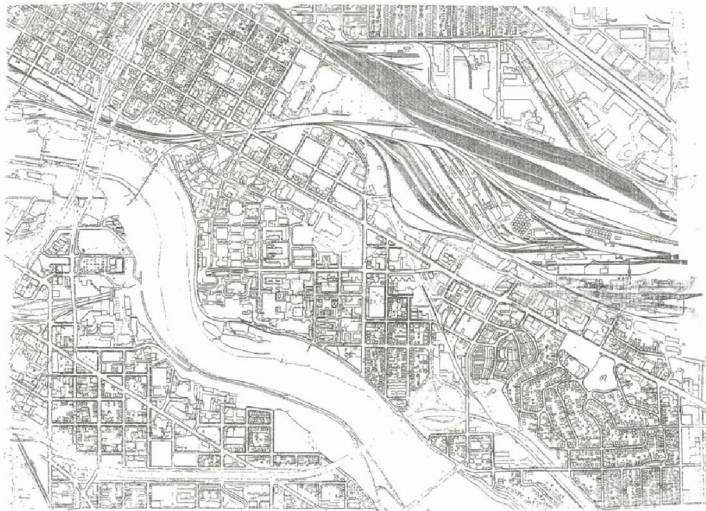
Longer term planning effort for more transit-related development in the large vacated and underutilized areas north of the University and adjacent to the Prospect Park district.

At the east edge of the University District, University Avenue becomes one-way, paired with 4th Street. Designed for moving traffic, its future as a transit street is linked to the desirable (but unlikely decision) to return these streets to two-way traffic.

Through the University District, the transit corridor that serves the campus and downtown Minneapolis shifts from University to Washington Avenue, which is the more strategically-located corridor in terms of present ridership and the current and near term planning focus of transit operations.

There are three areas of concern and opportunity to improve existing transit and build for future transit ridership along Washington Avenue:

- West Bank
- The Northrop Mall
- Stadium Village Area



Development along University Avenue borders the SEM I area. In many parts of the Avenue, industrial buildings have been cleared for new, University-related uses.

WEST BANK

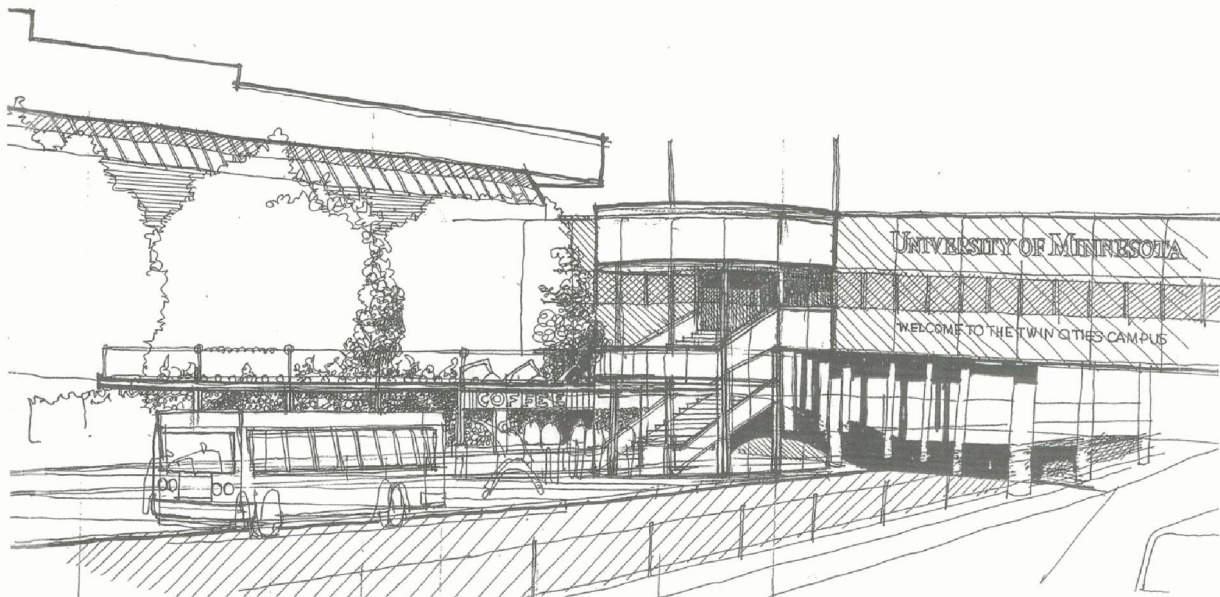
The West Bank is an intermediate stop between the Northrop Mall and the edge of downtown. The existing bus stops on the West Bank campus are at the lower (basement) level of the adjacent buildings (the Law School and the Social Sciences in Blegen Hall). While the diagram of service to this area seems conceptually logical and practical, the actual connection is indirect, dark, and unsafe.

In part, it might be suggested that this situation is exacerbated by the overhead deck that carries pedestrians directly at grade from Northrop Mall across the Mississippi River to the West Bank Union. The current University Master Plan has recommended removal of the deck, with pedestrians crossing at the same grade as vehicles. Many would argue that this would create more problems than it would solve.



One approach has the potential to anticipate several alternative solutions. Whether the current pedestrian deck above the main street level is maintained or removed:

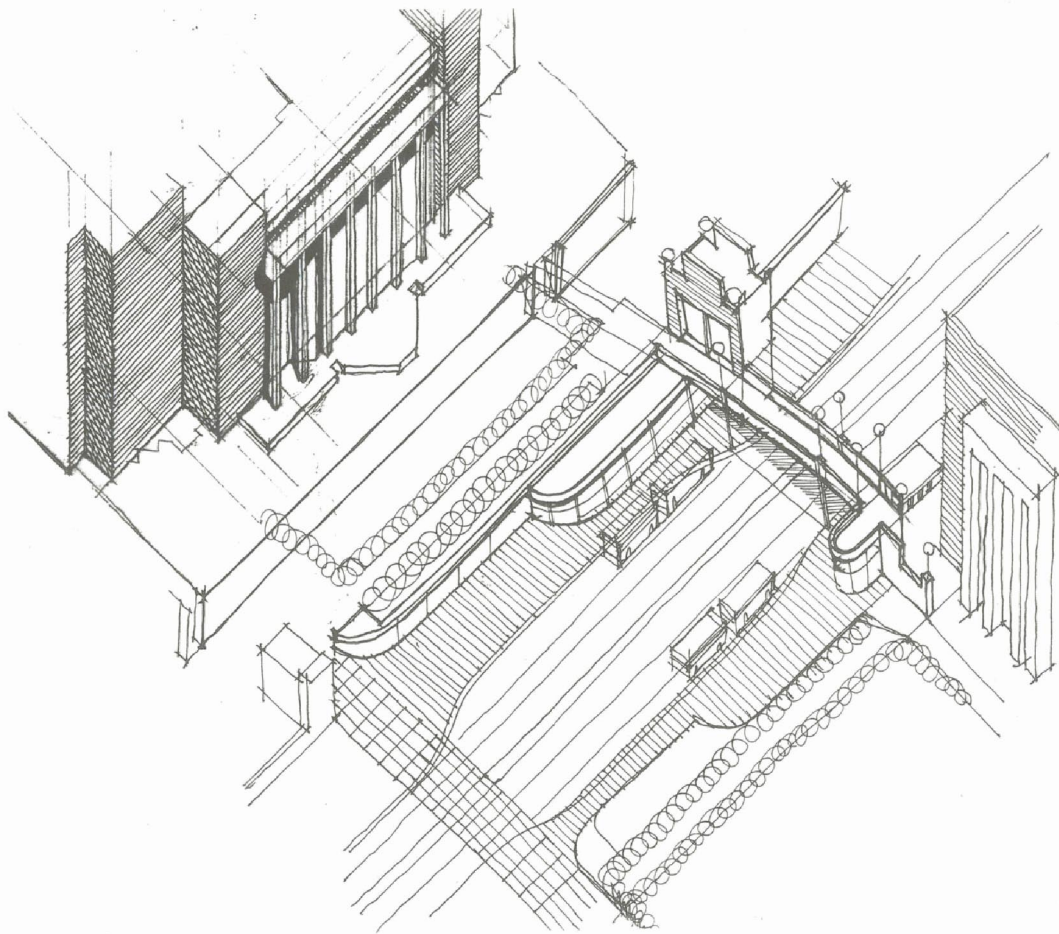
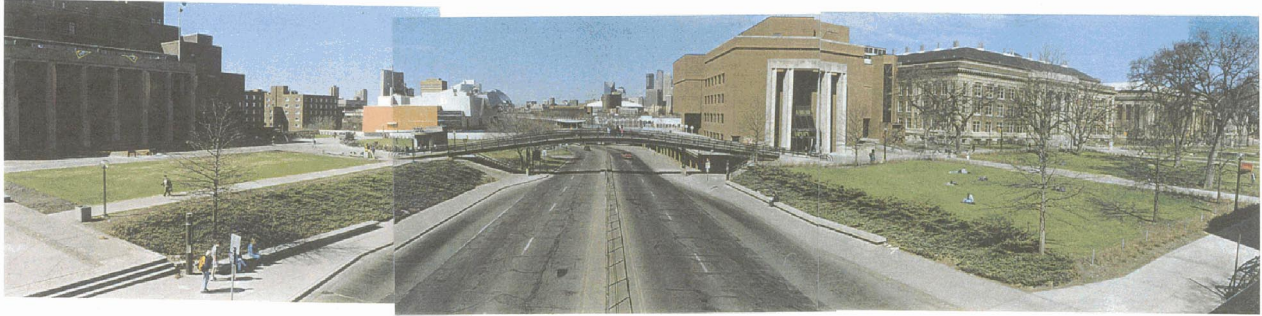
- Bus waiting needs to be integrated with main pedestrian plaza and bridge level of West Bank activity via elevator towers on both sides of Washington.
- Enclosed (climate-controlled), glazed and lighted areas are needed on both sides of the Avenue. On the Blegen (south) side the bookstore already offers important services for transit riders. On the Law School (north) side it would be desirable if a coffee, snack and soda kiosk could be established.



NORTHROP MALL

The logical connection between the campus and downtown Minneapolis is Washington Avenue. Northrop Mall is the most important intermediate stop between the Washington/University fork and the West Bank.

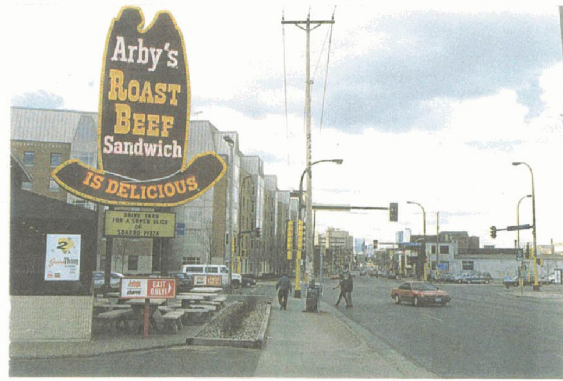
The act of extending the existing Northrop Mall across Washington Avenue with a new enclosed bridge and grade crossing connections can be coordinated with the establishment of more identifiable and safe bus stations with related services on both sides of University Avenue.



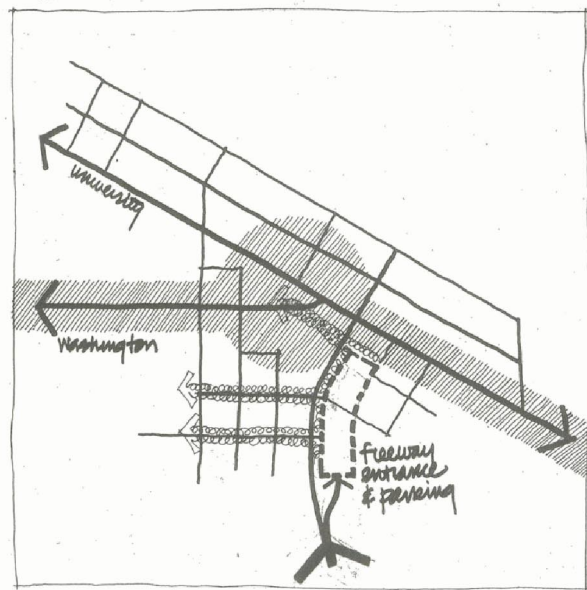
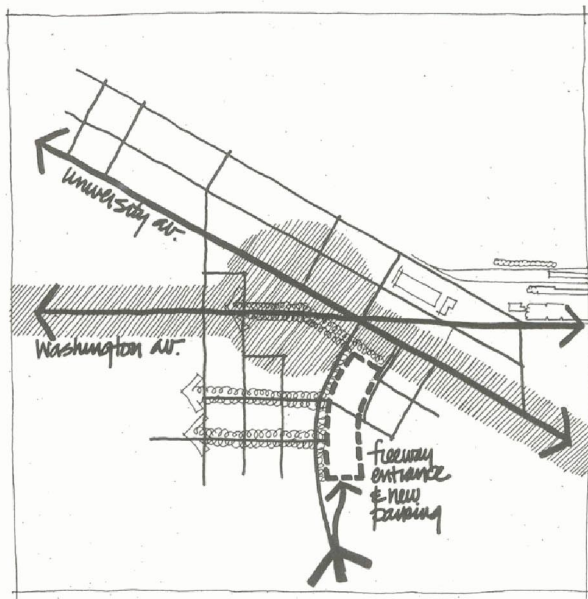
STADIUM VILLAGE AREA

Historically this area was an important intersection of Washington and University Avenues, defined by street front buildings that served the University, the Prospect Park neighborhood and the industrial areas to the north.

The removal of many of the former industrial buildings, along with an important state landmark, the Memorial Stadium, has left the area open, with little identity. This loss has been further aggravated by the reuse of the former railroad line through the area as Huron Boulevard, an I-94 feeder that must cross both Washington and University Avenue to connect freeway traffic from the south edge of campus to the surface parking lots on the north edge. This new roadway has attracted limited highway commercial development. Its design has bisected both Washington and University Avenue and has created a series of small, oddly-shaped blocks, which are difficult to build upon. No street- or transit-oriented development has occurred at this important entrance to the campus.



With the completion of the new Alumni Center on the site of the old stadium there should be new opportunities to revitalize this district with more pedestrian-oriented street designs and, possibly, a better relationship to transit.

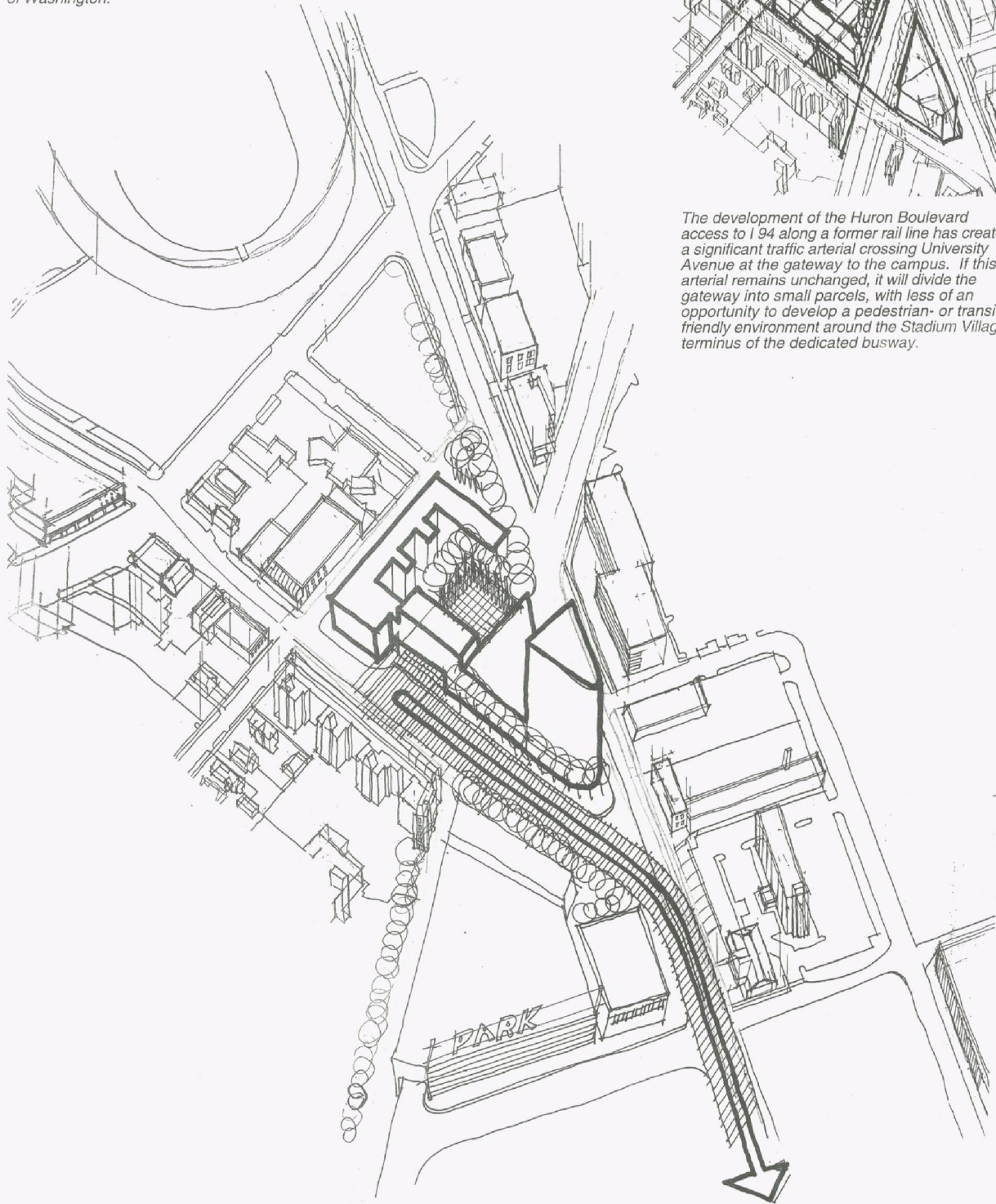


These diagrams illustrate two ways of returning Huron Avenue to relate to Washington and University Avenues on the city grid. In one diagram, Washington is shown extended eastward into the SEMI. In both diagrams, parking is provided nearer to the freeway, reducing the need to cross both Washington and University, and the resulting block is easier to develop as a University entrance with new buildings and open space.

DEDICATED BUSWAY WESTERN TERMINUS

The dedicated busway down the center of University Avenue could begin in the Stadium Village area.

The diagram illustrates a major station at this point coordinated with new student housing on the north side of University Avenue and the most recent housing project, Dinnaken House, on the south side of Washington.



The development of the Huron Boulevard access to I 94 along a former rail line has created a significant traffic arterial crossing University Avenue at the gateway to the campus. If this arterial remains unchanged, it will divide the gateway into small parcels, with less of an opportunity to develop a pedestrian- or transit-friendly environment around the Stadium Village terminus of the dedicated busway.

SEMI

Planning the SEMI: rebuilding with transit

In both the University of Minnesota and Prospect Park districts, a major city rebuilding opportunity exists in the large, brownfields north of University Avenue. Parts of the northern edge of this area are already being developed with relatively low density, single-story, mixed use job and production facilities.

Although there has been a conceptual master plan for the area, the rough outlines of this planning effort have done relatively little to shape an integrative vision for the area and maximize a transit related campus and city building opportunity:

University of Minnesota plans have concentrated on the development of the intercampus transitway and related surface parking. Isolated laboratories have been built near the rail lines. Opportunities for student housing and neighborhood rebuilding are being explored at this writing. The reclamation of contaminated lands in the brownfields and the possible restoration of an open channel and related open space corridor for Bridal Veil Creek have been suggested.

University Avenue has the potential for continued job production and residential uses. New mixed use building types will be needed. Parking requirements could be adapted to the transit service.

College of Architecture and Landscape Architecture (CALA)

STUDIO RECOMMENDATIONS

The diagrams here are excerpts from a CALA design studio of architects and landscape architects, which examined at several scales the opportunity for reclaiming this area.

While the projects are hypothetical, they do represent different ways in which actual development could be coordinated to create a livable city environment of education, neighborhood, industrial production, and commercial services served by transit.

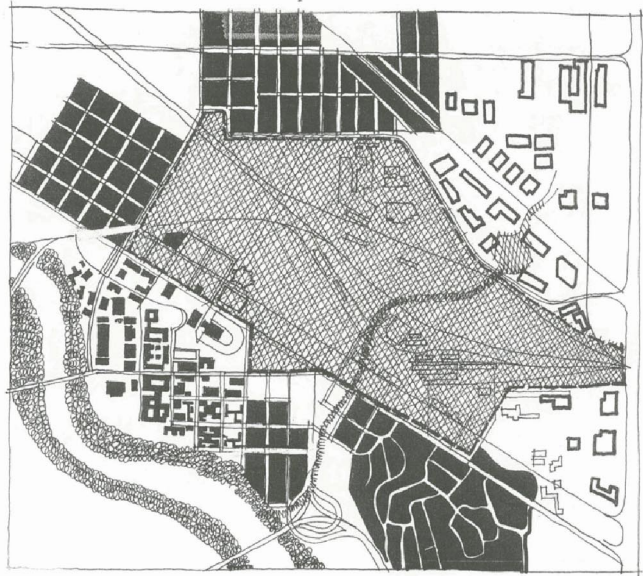


Diagram showing size of major development opportunity.

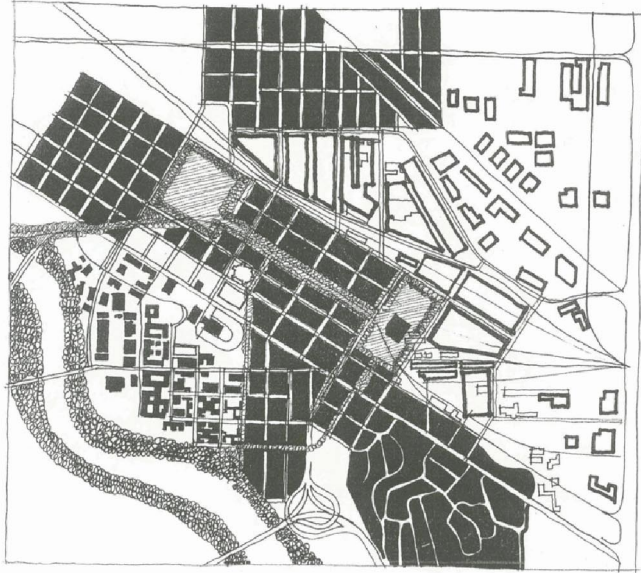


Diagram of coordinated creation of new block and open systems in the area.

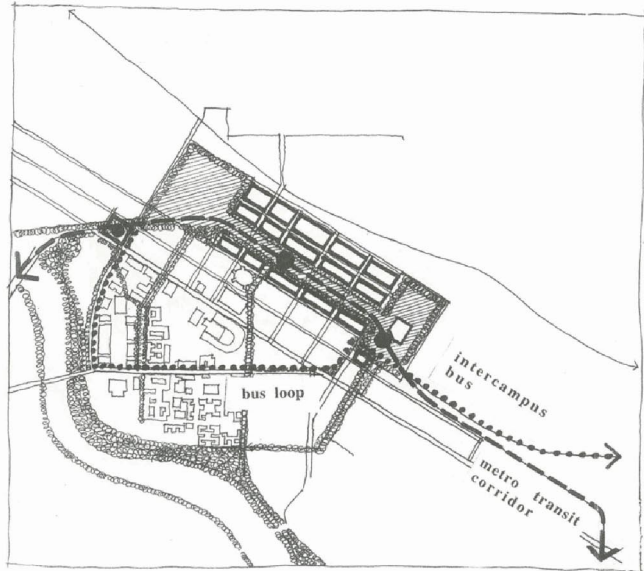
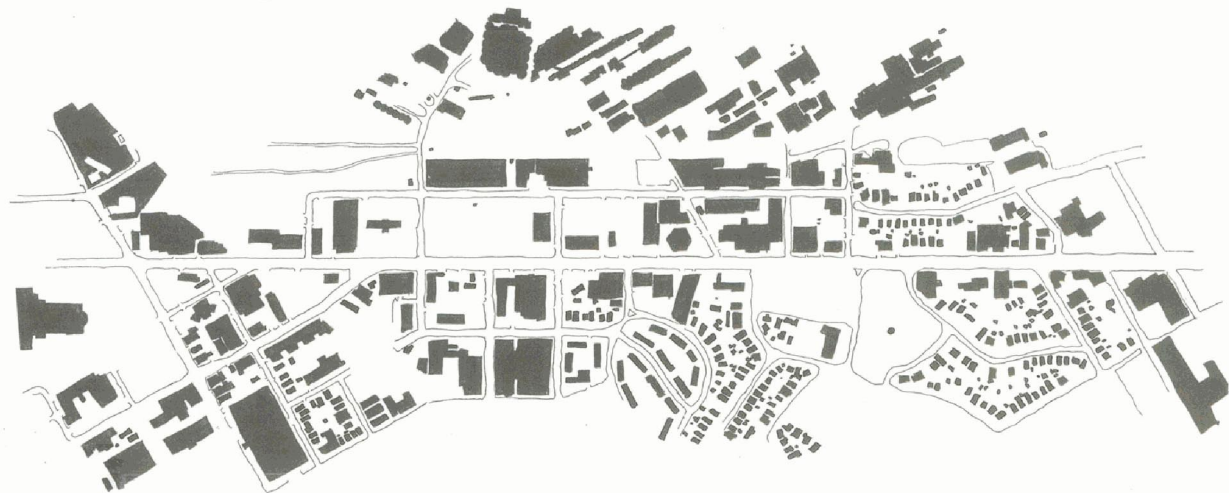
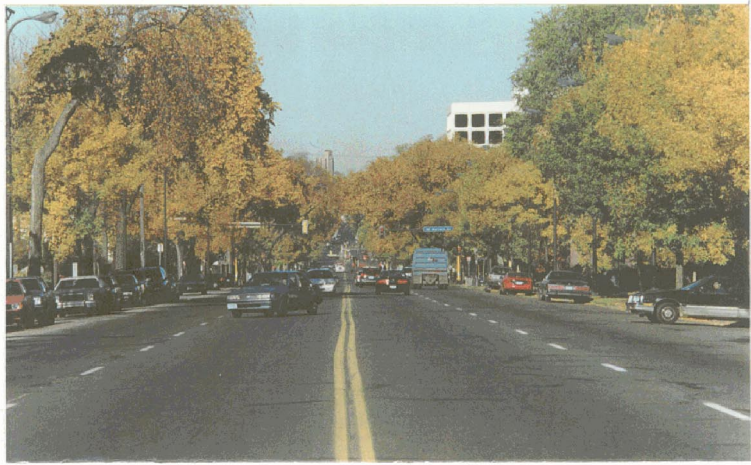
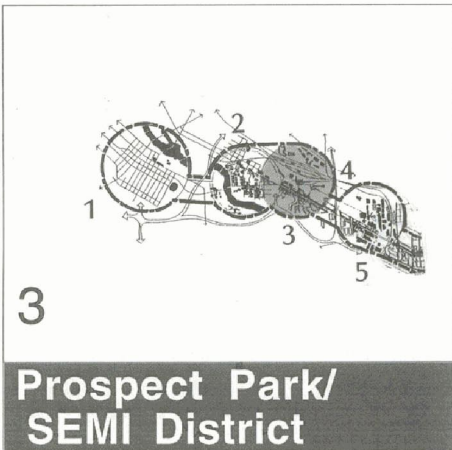


Diagram of transit-related development blocks along north edge of the University.



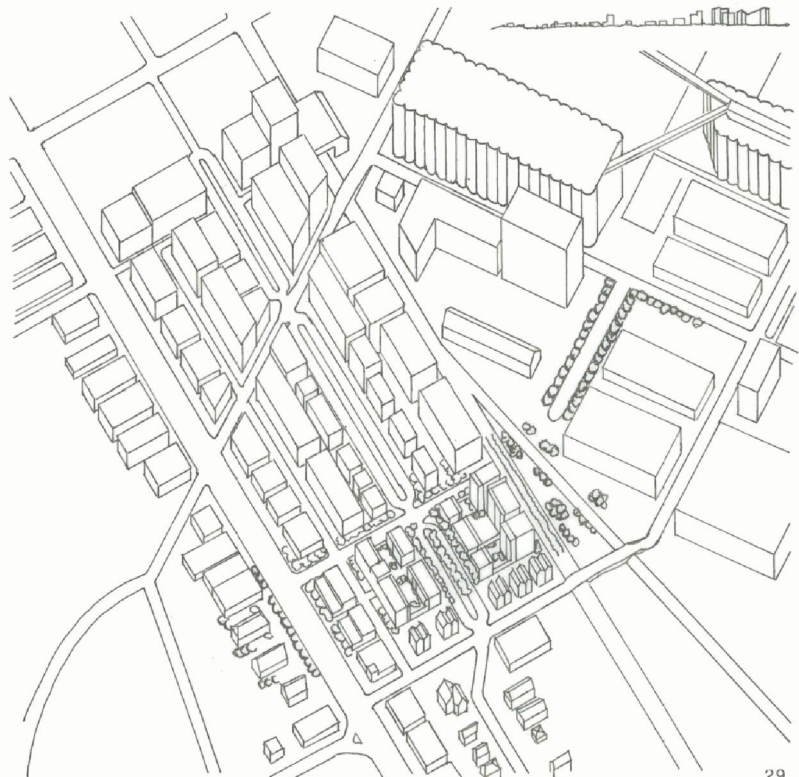
Issues

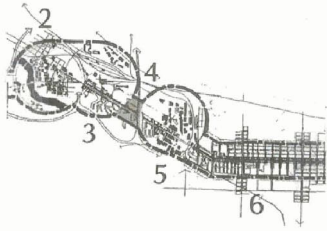
- neighborhood revitalization
- future of north edge and former industrial lands
- relation to the University of Minnesota
- connections with the University of Minnesota campus, Stadium Village and Gateway areas

RECOMMENDATIONS

This diagram illustrates a hypothetical development scheme that would make a transition with new development along the north side of University Avenue at the edge of the vacant industrial lands in the district.

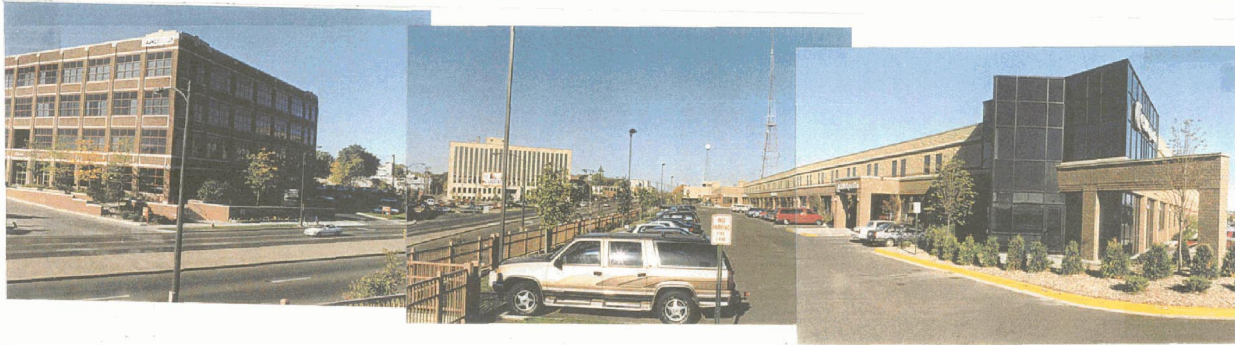
Such mixed use development would support transit by creating new blocks that expand and extend pieces of the neighborhood that still exist along the north edge of University Avenue. New commercial and office uses would front University. Parking would be located in interior block courts and parking ramps.





4

Gateway District



Issues

Because of its strategic connection via Highway 280 to the Interstate freeway system, the gateway district has become the focus of highway-oriented improvement.

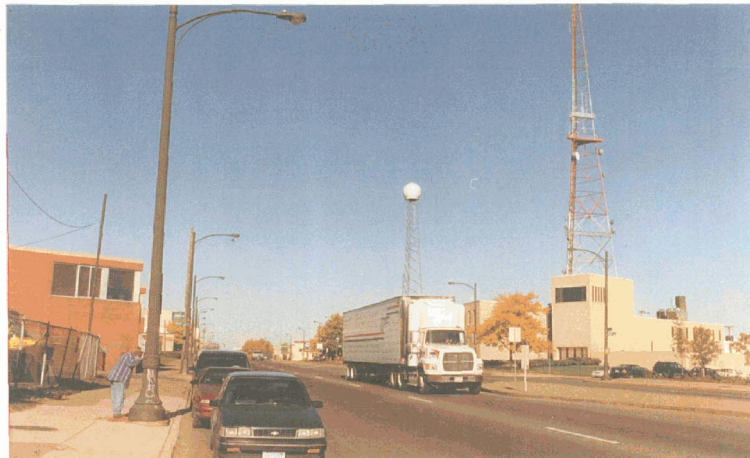
Investments for new jobs and production activities have taken the form of newer, large, flexible-space buildings. Many of the buildings in this district have two stories or more. As such they are adaptable to many desirable mixed uses. However, buildings on the northwest corner of the 280 intersection occur above grade and have parking lots between them and the street. Transit along University Avenue can not directly serve people who work or receive services in these buildings until the bus reaches their grade at Berry Street, well to the west of the main structures.

On the south side of the Avenue, the old International Harvester implement sales and warehouse building has been reused for office space with structured parking toward the freeway and a good relationship to the street for pedestrian access. This building represents a good example of recycling an existing warehouse structure into activities supporting transit.

On the east edge of the district, University Avenue leaves adjacent buildings and passes over the Highway 280 intersection. The street reestablishes connections with adjacent buildings at the corner of Cromwell.

RECOMMENDATIONS

One important recommendation is the revision of auto-oriented site development conventions and off-street parking requirements for new structures on the north side of the Avenue in order to allow the bus line to serve them.



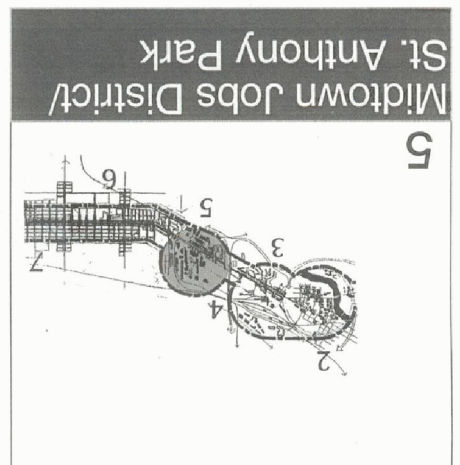
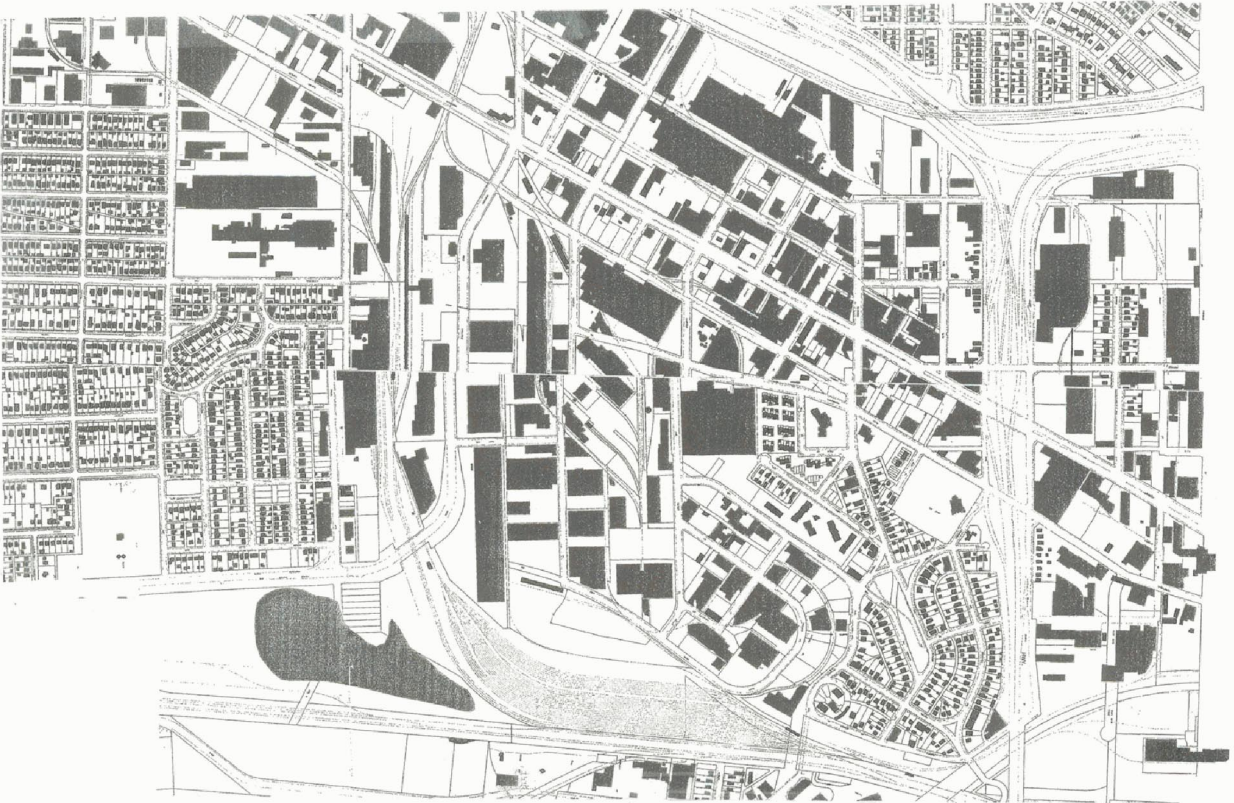


The district stretches from the intersection of Highway 280 in the Gateway District to Fairview Avenue. This district contains a concentration of inner city production activities that constitutes a valuable job resource. The Metropolitan Council's Jobs distribution map shows a high density of employment along the corridor. Each dot on the map represents 100 jobs. Many of these jobs employ people dependent upon transit.

Another unique aspect of the district is the proliferation of trucks that service industries along both sides of University Avenue. The truck traffic in this area is bound for destinations north and south of the Avenue and also for the I 94 and I 35 freeway corridors. Highway 280 is an important connector between I 94 and I 35W.

The principal issue for this area is job creation. New job development can take a new form related to transit service

Issues



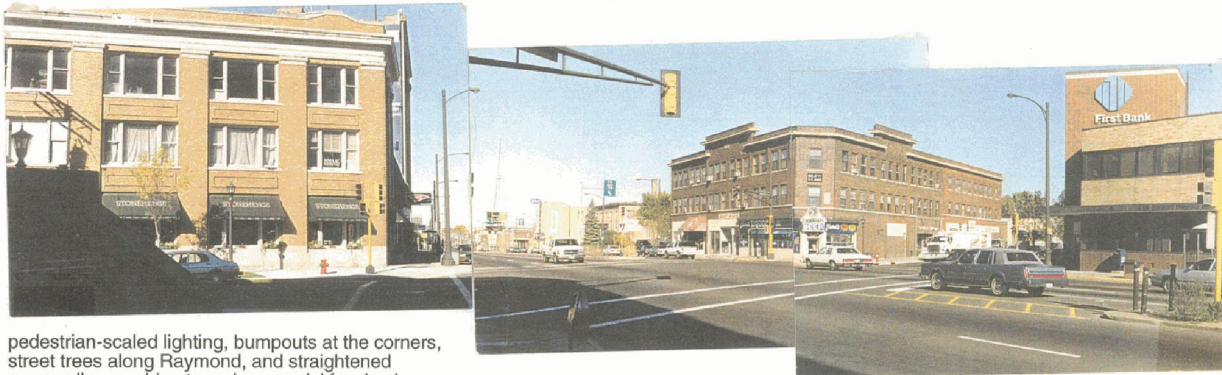
RECOMMENDATIONS

The design interventions in this area pay special attention to the changing relationship of transit and truck traffic including the diminishing pedestrian character of the Avenue.

Intersection of Raymond and University/St. Anthony Park

At Raymond and University, transit is intimately related to the workings of the intersection as defined by adjacent buildings, the uses near the corner, and the streetscape. Recent adaptations in use to historic buildings have respected traditional street-oriented patterns. Several buildings have been converted to office and gallery uses. North of the intersection, on Raymond, the Baker School has been converted to offices. There is a mix of high-density housing types, including townhomes and the Seal high-rise in this area, which is a gateway to St. Anthony Park.

Recent improvements to the pedestrian environment at the University/Raymond intersection, such as



pedestrian-scaled lighting, bumpouts at the corners, street trees along Raymond, and straightened crosswalks, combine to make a model for simple adaptations to an otherwise truck-and car-dominated intersection.



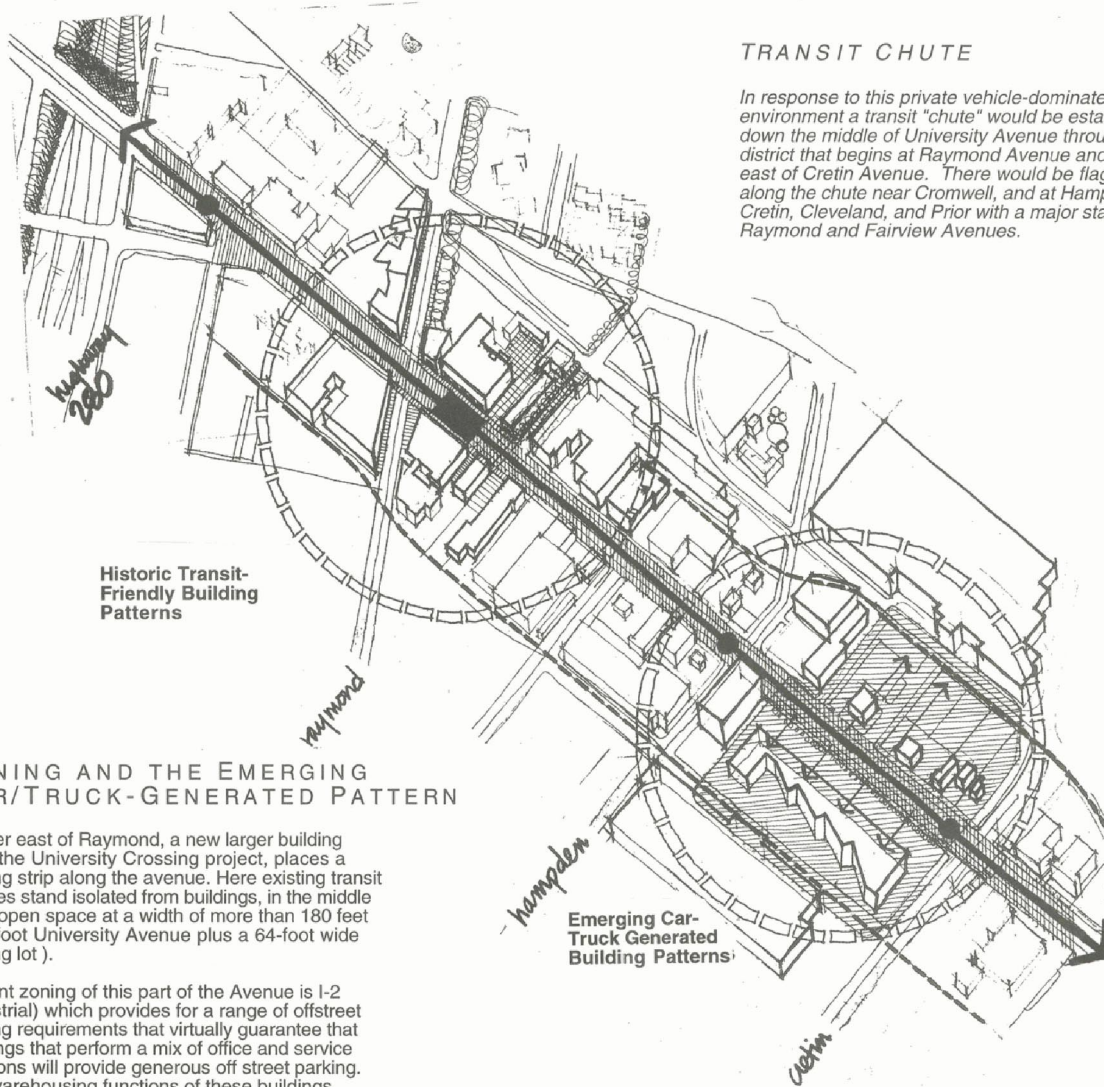
New Development on North Side of University Near Vandalia

Recent auto-related development occurs at the east end of the district around Cretin/Vandalia Avenue. For example, on the north side of University Avenue between Vandalia and Hampden, buildings have been removed and replaced with parking and service lots and smaller auto-related activities such as gas stations and fast food facilities. The effect on the transit environment has been devastating.



HISTORIC TRANSIT-FRIENDLY PATTERN

Building development along University Avenue in this district contains one of the largest collections of early twentieth century industrial remnants in the metropolitan area. On the west end of the district, around the Raymond Avenue intersection, blocks of street-front warehousing, office, commercial and production buildings still line University Avenue. Truck and rail service occur along the backs of blocks, on Myrtle and Charles Streets paralleling University Avenue. This traditional arrangement places the "public" fronts of building in a position to fully engage and support transit along University Avenue.



TRANSIT CHUTE

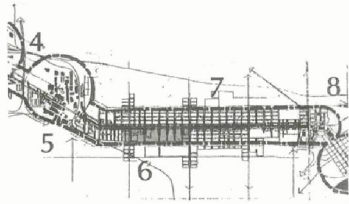
In response to this private vehicle-dominated environment a transit "chute" would be established down the middle of University Avenue through the district that begins at Raymond Avenue and ends east of Cretin Avenue. There would be flagstops along the chute near Cromwell, and at Hampden, Cretin, Cleveland, and Prior with a major stations at Raymond and Fairview Avenues.

ZONING AND THE EMERGING CAR/TRUCK-GENERATED PATTERN

Farther east of Raymond, a new larger building type, the University Crossing project, places a parking strip along the avenue. Here existing transit facilities stand isolated from buildings, in the middle of an open space at a width of more than 180 feet (120-foot University Avenue plus a 64-foot wide parking lot).

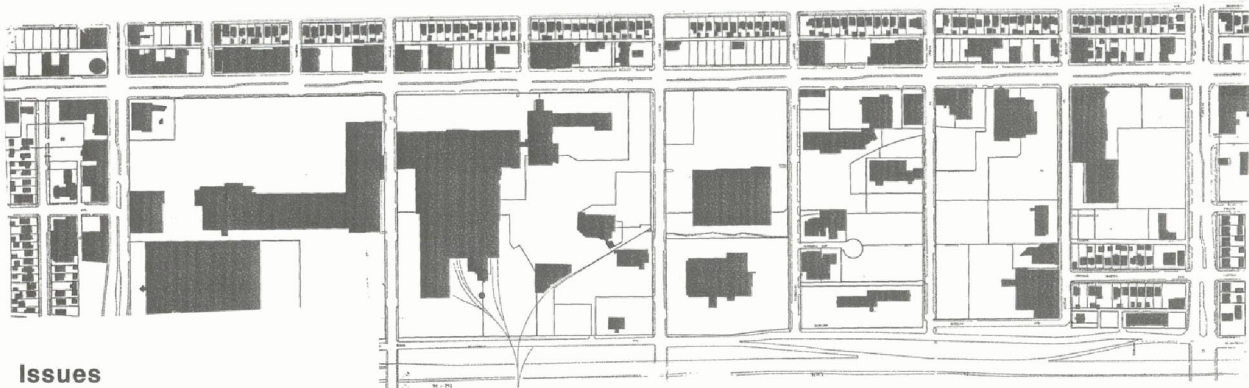
Current zoning of this part of the Avenue is I-2 (industrial) which provides for a range of offstreet parking requirements that virtually guarantee that buildings that perform a mix of office and service functions will provide generous off street parking. The warehousing functions of these buildings demand a rear dock. Parking must be located at the front of the building, creating the look of a strip commercial structure.

Consideration should be given to establishing zoning or overlay design guidelines regarding the placement of parking in relation to future buildings. Parking courts in back or along the side of future building projects would place riders closer to transit stops and stations along University Avenue. This proximity would improve safety because of proximity to buildings, and also provide less exposure to the elements.



6

Midway Regional Center



Issues

Retail service and its relation to transit and to neighborhoods has been dramatically eviscerated by the new Midway Center.

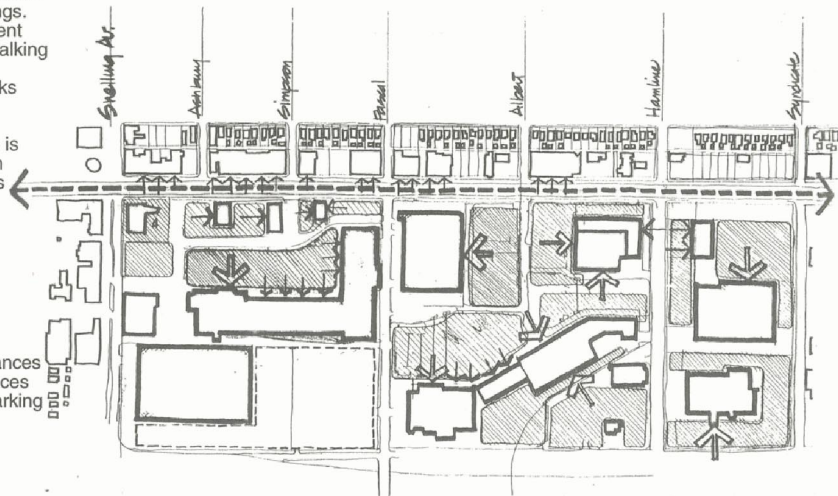
This recent development of a regional shopping center along University Avenue between Pascal and Hamline has been suburban in nature. New buildings have been large in scale, and most no longer relate to the historic University Avenue transit corridor. Instead, they face large surface parking areas that are scattered throughout the area. The rear areas of the stores are dedicated to loading and truck movement as in conventional structures that front on streets; however, instead of public alleys, the loading area is privatized.

This emphasis on the private automobile and the truck in the development of this retail area has compromised the role of transit. Serving this development efficiently with transit is difficult with the scattered and unorganized nature of new buildings. The privatized landscape of this retail environment has also created a place for cars not people. Walking distances between buildings and the transit on University Avenue are long and unprotected treks across large surface parking lots.

University Avenue just east of Snelling Avenue is bordered by large open parking lots, also not an environment that creates pedestrian connections between bus stops and the regional center.

NEW BUILDING DEVELOPMENT PATTERNS

In this diagram, the arrows represent major entrances to new buildings in the Regional Center. Entrances are scattered and relate to large open surface parking areas.

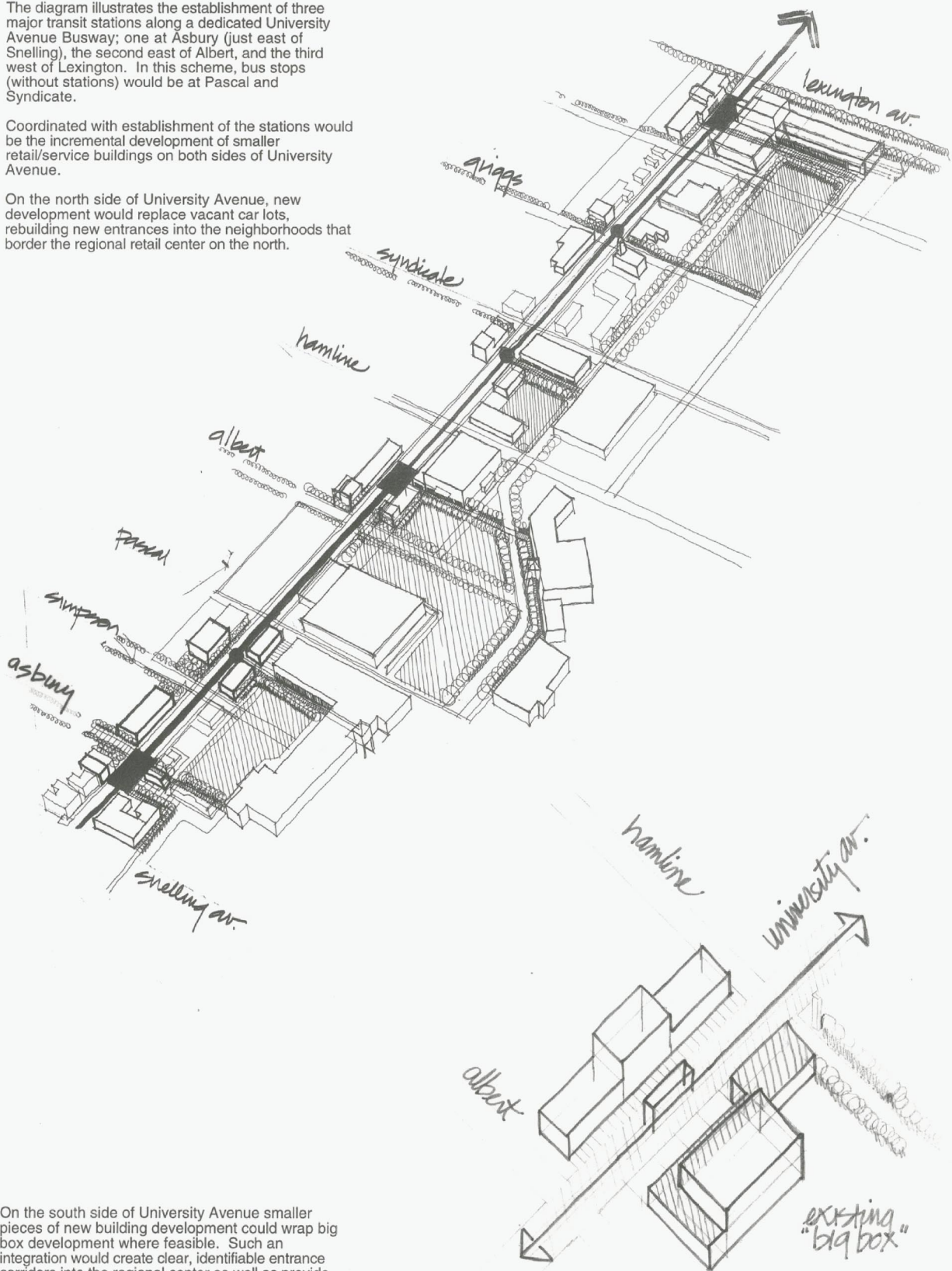


PROPOSED TRANSIT STRUCTURE

The diagram illustrates the establishment of three major transit stations along a dedicated University Avenue Busway; one at Asbury (just east of Snelling), the second east of Albert, and the third west of Lexington. In this scheme, bus stops (without stations) would be at Pascal and Syndicate.

Coordinated with establishment of the stations would be the incremental development of smaller retail/service buildings on both sides of University Avenue.

On the north side of University Avenue, new development would replace vacant car lots, rebuilding new entrances into the neighborhoods that border the regional retail center on the north.



On the south side of University Avenue smaller pieces of new building development could wrap big box development where feasible. Such an integration would create clear, identifiable entrance corridors into the regional center as well as provide pedestrian connections from the center to transit on University Avenue.

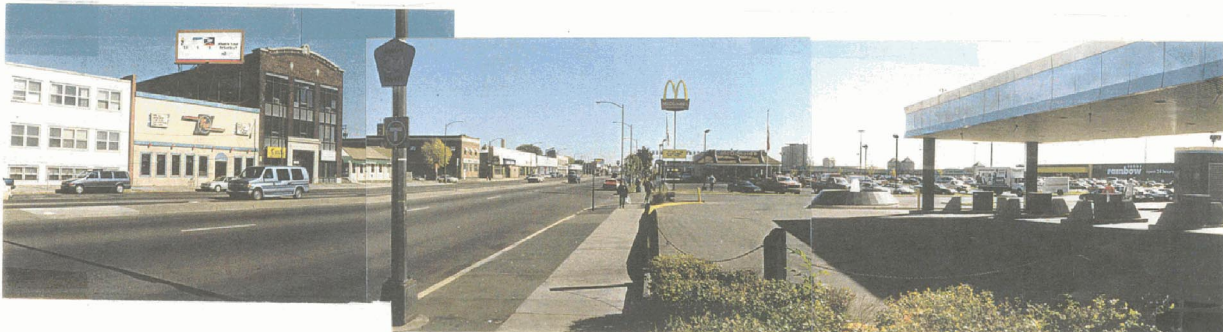
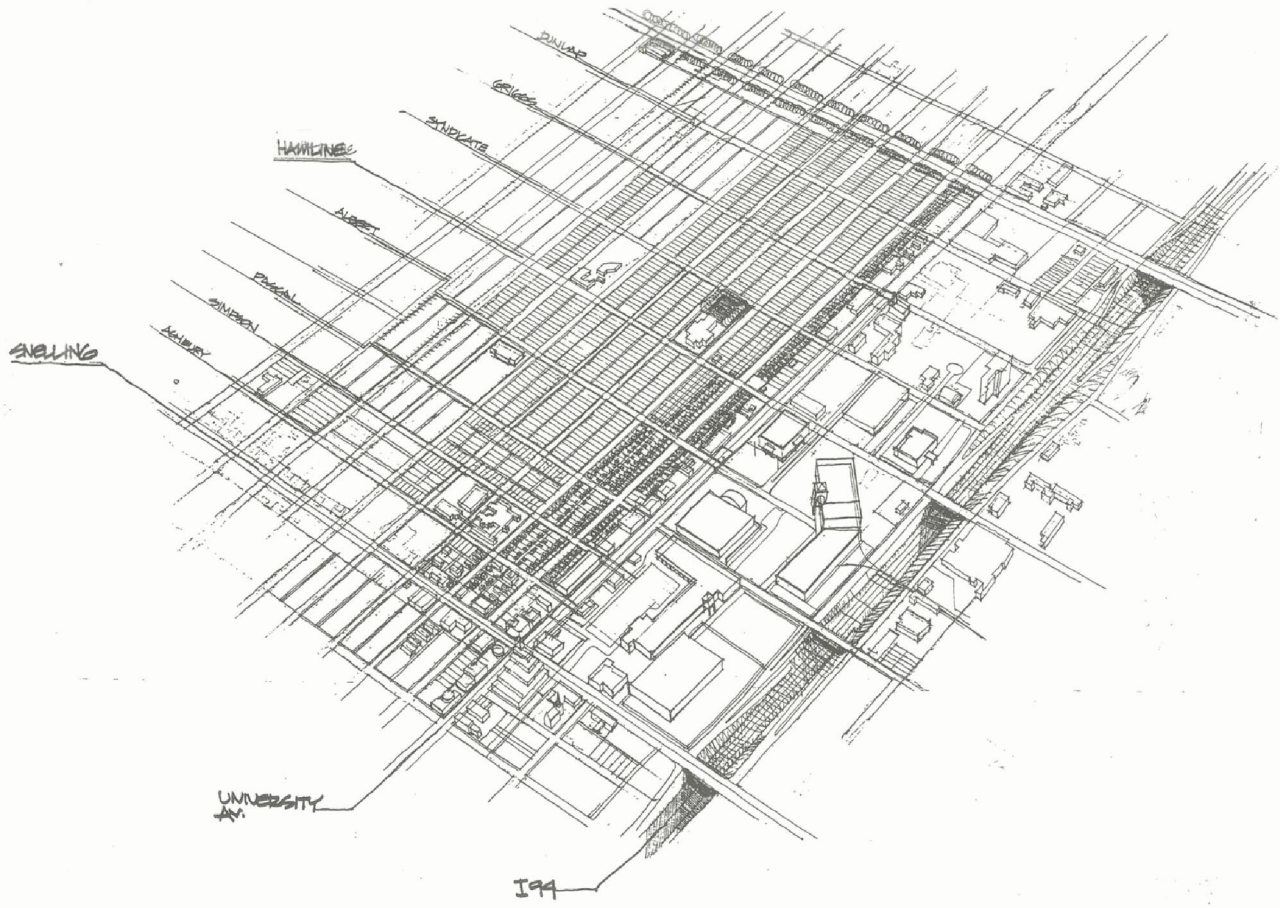
RECOMMENDATIONS

PLANNING FOR MORE FUTURE TRANSIT RELATED DEVELOPMENT IN THE MIDWAY REGIONAL CENTER

Future, incremental building activity should be directed along the University Avenue frontage as much as possible. Such buildings could be placed to clarify access between existing transit on University Avenue and the regional center.

There has already been a small beginning on the south side of University between Snelling and Pascal. Another form of this activity is occurring at the southwest corner of University Avenue and Hamline. Here smaller new retail spaces are wrapped around the "big box" forming potential pedestrian links between stations along University Avenue and the new regional retail center. This new development is similar in scale and position to historic University Avenue building development along trolley lines. The only difference is the nature of delivery which tends to create a pedestrian unfriendly zone between the rear facades of these new buildings and the setback structures of the power center.

Large parking lots front the Avenue at the Midway Marketplace Regional Center. Currently these large parking areas are being mitigated by the addition of smaller building pieces that front University Avenue.



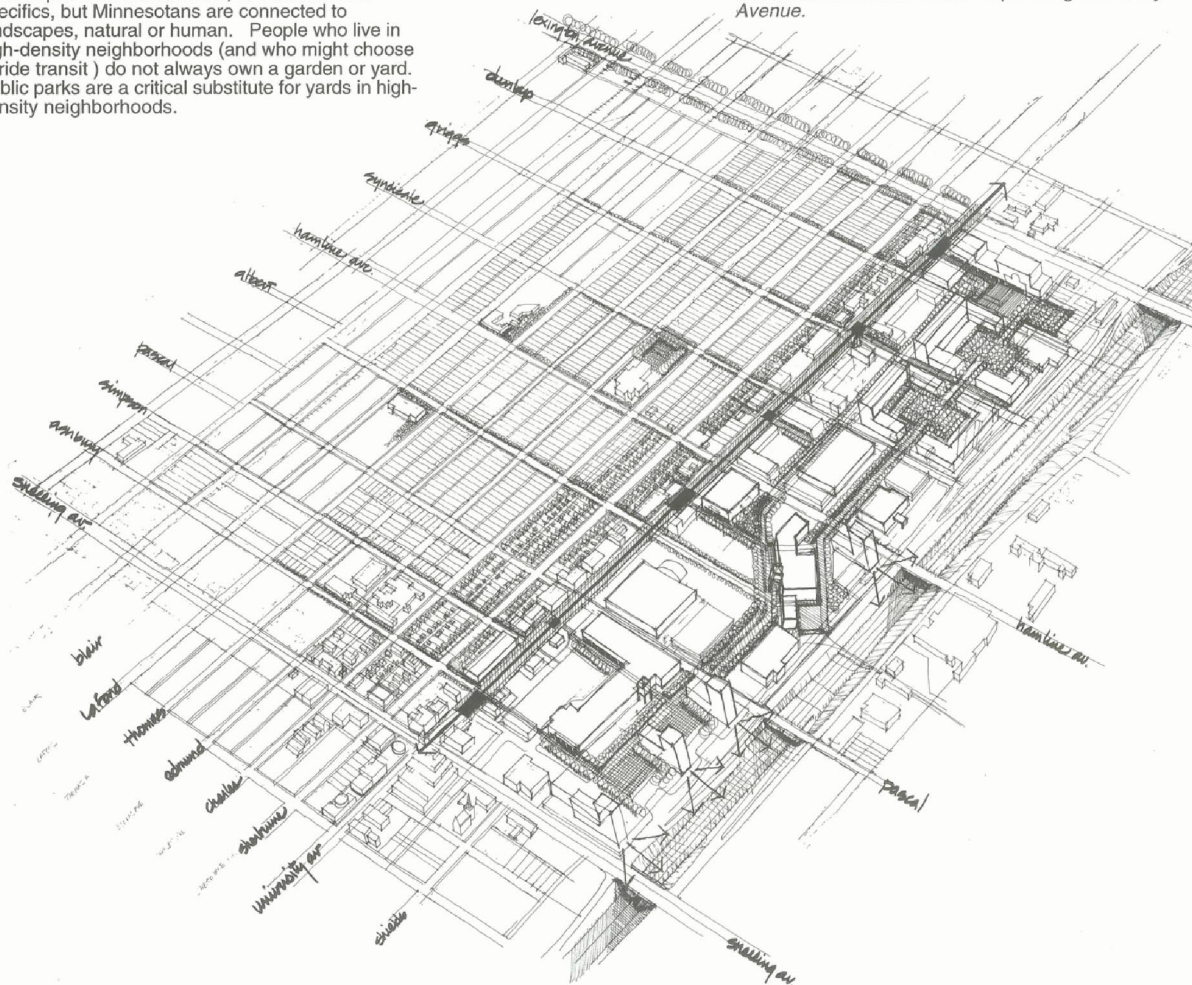
TRANSIT AND OPEN SPACE AMENITIES

The University Avenue corridor contains few large scale open space amenities. Scattered neighborhood parks dot the neighborhoods that edge the corridor, but aside from the Lexington Parkway, nothing directly along the University Avenue corridor exists that provides park space or is similar to Summit Avenue or Como Parkway.

While transit and open space may seem unrelated, livability and the choices that people make about their neighborhoods are directly related. Perhaps it is the sharpness of the seasons, or some cultural specifics, but Minnesotans are connected to landscapes, natural or human. People who live in high-density neighborhoods (and who might choose to ride transit) do not always own a garden or yard. Public parks are a critical substitute for yards in high-density neighborhoods.

The diagram illustrates an approach that could establish one of many different kinds of open space systems in this district.

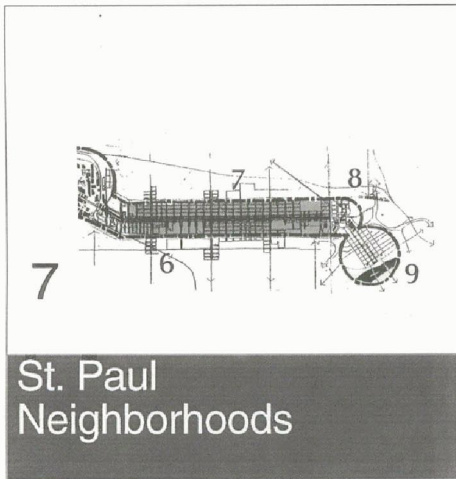
Here a hypothetical boulevard is created through the district paralleling University Avenue. This boulevard is already suggested in the existing building pattern. The amenity is connected with a minor system of north/south boulevards connecting existing parks and schools on both sides of University Avenue. This system defines routes to and connections with transit stops along University Avenue.



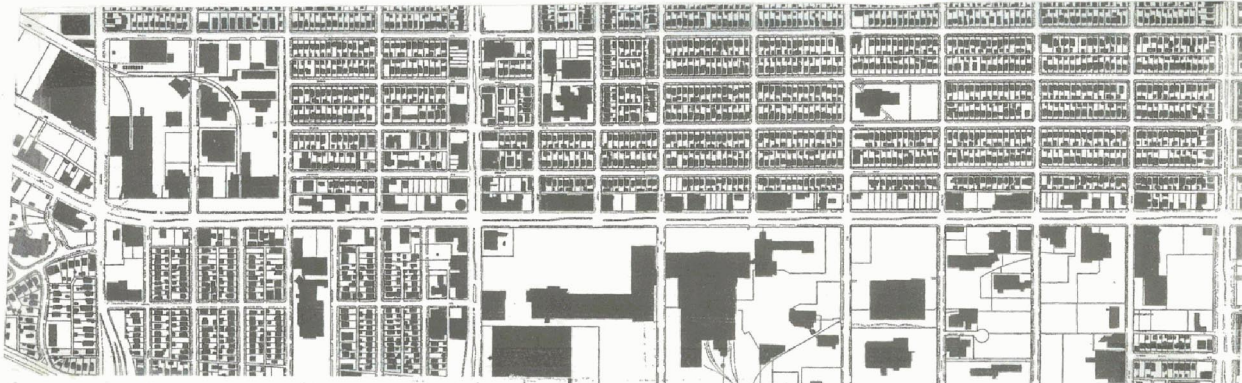
Redevelopment that establishes and refurbishes neighborhoods needs the same (or better) open space amenities than exist in most other parts of the Metropolitan area.

Recent landscape development in the regional shopping center "decorates" or "screens" the edges of parking lots with various shrubs, sometimes planted on linear mounds, or "berms." More comprehensive landscape design will be needed to provide connections for pedestrians who live in the same neighborhoods as (not "go to") this regional center. However, there has been no real assertive effort to create for pedestrians something as memorable as a Summit or even Lexington Avenue.





St. Paul Neighborhoods



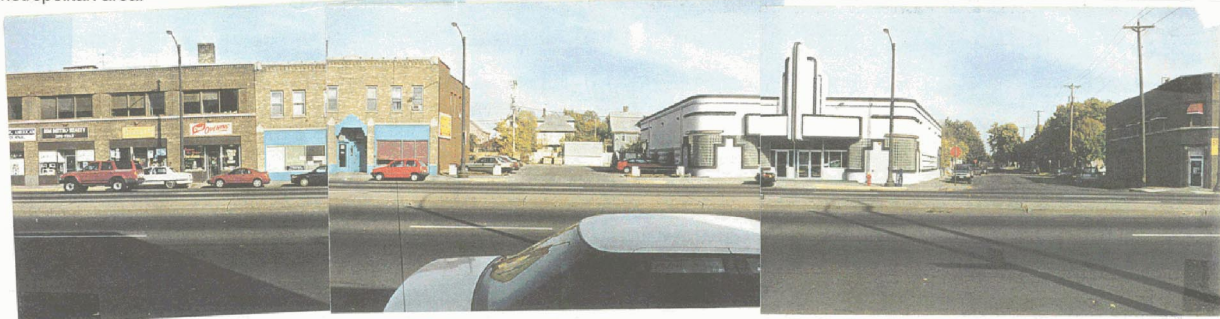
Building and vacant land along north side of University Avenue - Asbury to Lexington

Issues

If the Avenue changes with redevelopment, critical issues of neighborhood edges and identity will also change. Intangible human relationships are embedded in the neighborhood identity; even physical edges can be subject to interpretation across the residents of a neighborhood. Yet clarity of spatial access to the transit corridor can enhance both identity and personal legibility for pedestrians. A re-established tradition of street transit reinforces neighborly relationships and safety.

Transit gives structure to the access of neighborhood commercial and institutional centers. The location of a transit station and the edges of the University Avenue corridor can concentrate neighborhood services along access streets to the station.

Eight different neighborhoods make up the St. Paul neighborhood district that borders both the north and south sides of University Avenue between the State Capitol and the Midway Industrial district. Neighborhood character varies considerably. The neighborhoods surrounding the Capitol include some of the most historic and oldest buildings in the metropolitan area.



North Elevation of University Avenue east of Lexington. Historic building remnants from trolley days were designed in a period when pedestrian access to the streetcar was an important urban pattern. They could be incorporated into new pedestrian-accessible development.

RECOMMENDATIONS
TRANSIT AND CITY REBUILDING OPPORTUNITIES

Because University Avenue is a transect across a number of neighborhoods, it provides access to a larger system for many core residents of St. Paul.

Within the St. Paul neighborhood district, there are numerous stretches of vacant and underutilized land along both sides of University Avenue. Some of this land is in the form of car dealerships, vacated industrial and residential structures. This land and some structures represent opportunities to rebuild the city by placing people-- living and working-- along a dedicated transitway. Greater residential densities are desirable, and possible.



Building and vacant land along north side of University Avenue

DEDICATED TRANSIT STATION DEVELOPMENT MODEL

The diagram illustrates a potential development model that would focus new building activity around the previously identified stations centered on University Avenue.

Larger scaled development is placed along the south edge of the Avenue, closest to the freeway, where the existing fabric of the neighborhood, in most cases, is the thinnest. These new buildings are located along University Avenue, near and directly across from the proposed stations.

The mix of uses would vary with the location of specific intersections. Existing services and the character of neighborhoods will provide opportunities to tailor investment opportunities.

Possible mixes at any intersection could include on the first floor:

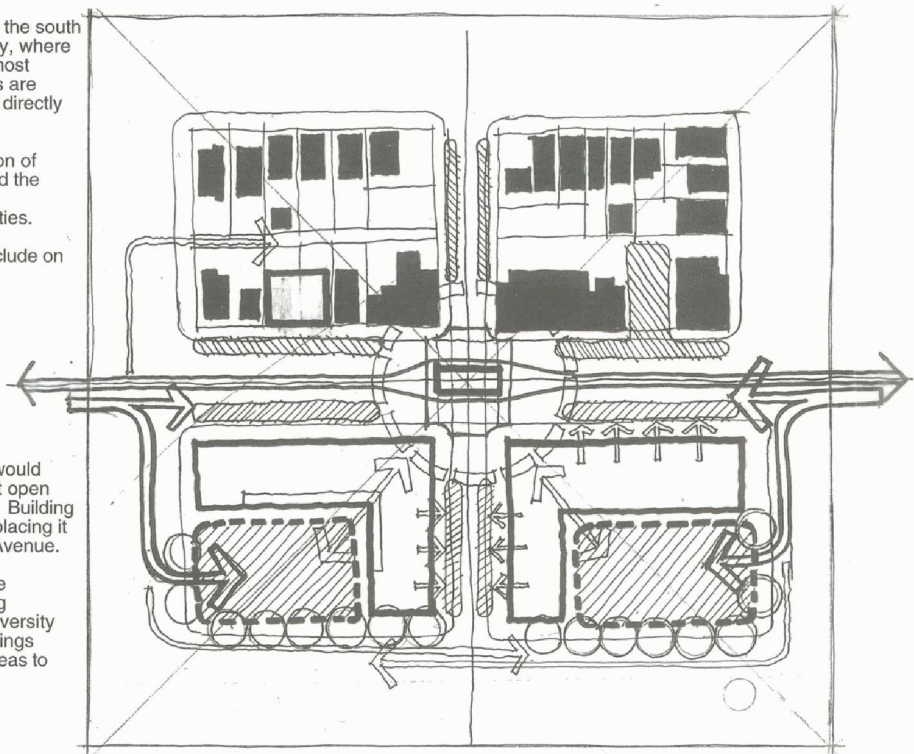
- Retail
- Office
- Light production

On the second floors and above:

- Office
- Light production
- Residences

The focus of such a development pattern would place new building activity and people, not open parking areas, adjacent to a transit station. Building development would wrap around parking, placing it in the back rather than fronting University Avenue.

Access to and from parking areas should be coordinated with existing parks and housing developments currently sited between University Avenue and the freeway. Street tree plantings could be carried from streets into parking areas to define pedestrian walkways.



TRANSIT-FRIENDLY INFILL REBUILDING

There is a large development opportunity east of the new regional shopping center, on the parcels between Syndicate and Lexington Avenue. The framework diagram identifies new streets and pedestrian ways that would directly link transit to the creation of new development blocks.

The revitalization of Lexington Parkway creates public amenities and connections to both I 94 and to Como Park. The opportunity presents itself to develop new high-density housing and office structures in a mixed use center near Lexington. New mixed use blocks would wrap buildings around parking courts and possible open space amenities.

STATIONS AT INTERSECTIONS

The proposed stations within the St. Paul Neighborhood District could be located at or near the key intersections. Depending upon the location and design of specific stations and related developments, turning movements could be eliminated.

Ideally, stations would be located where they could take advantage of existing pedestrian crossings and build upon, in some cases, building activity that exists at most major intersections in the St. Paul Neighborhood District.

Station at intersections necessitate the elimination of a turning lane. Further traffic analysis would reveal potential intersections where one or more turning lanes might be eliminated in favor of transit stations centered in the right of way.

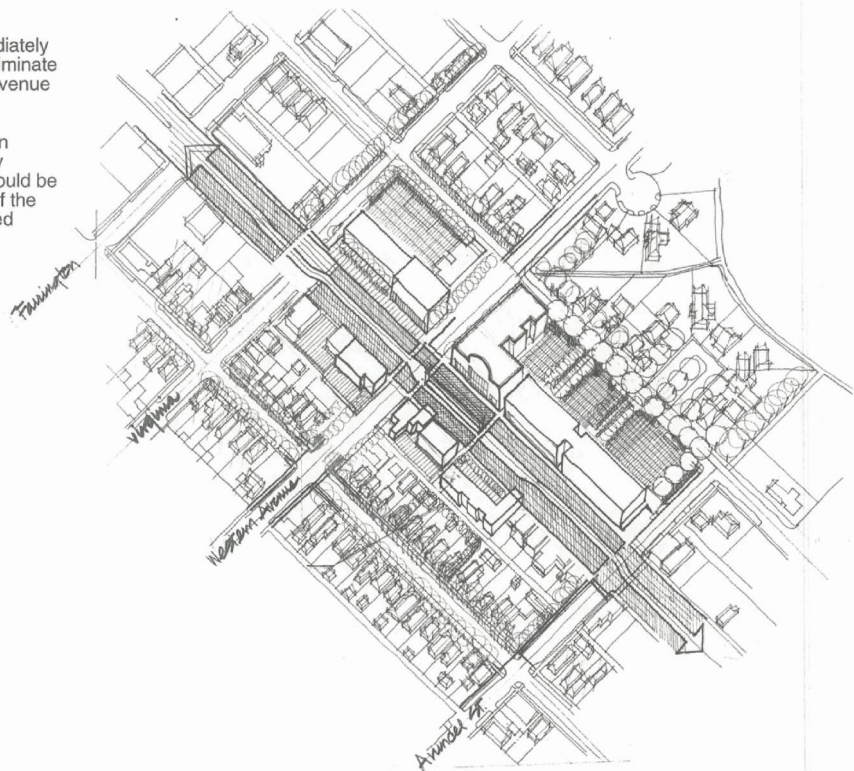
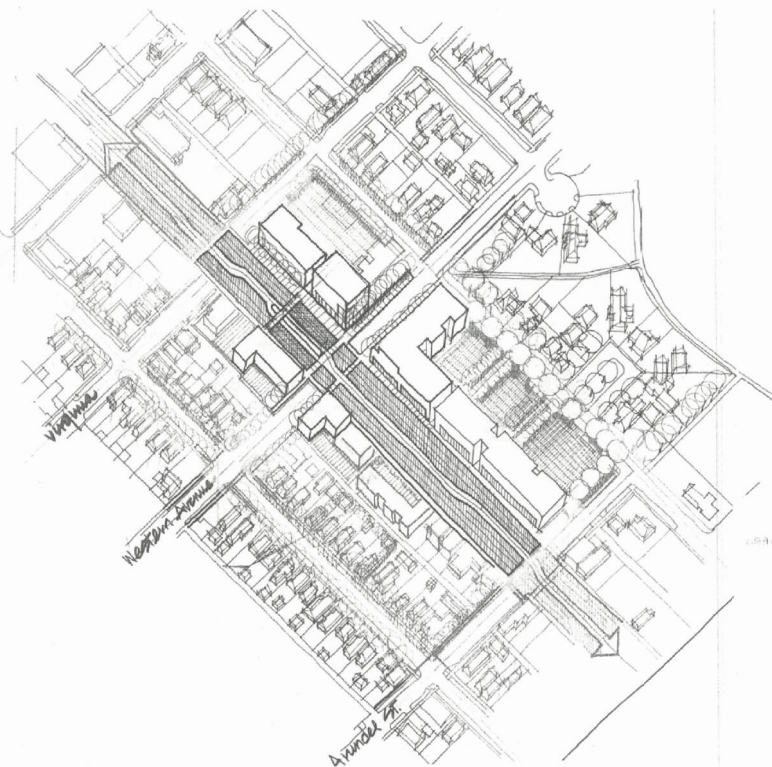
The last traffic data from the light rail environmental impact statement identified all intersections east of Lexington as having Levels of Service (LOS) C, or better. These data would indicate a strong possibility of eliminating some turning lanes in favor of transit stations at these intersections.

The two diagrams illustrate alternative developments for two different station locations at the intersection of University and Western.

The first alternative places the station immediately west of the intersection. This scheme would eliminate the left hand turn eastbound off University Avenue onto Western.

The other alternative places the station immediately east of the intersection. This scheme would eliminate the left hand turn westbound off University Avenue onto Western.

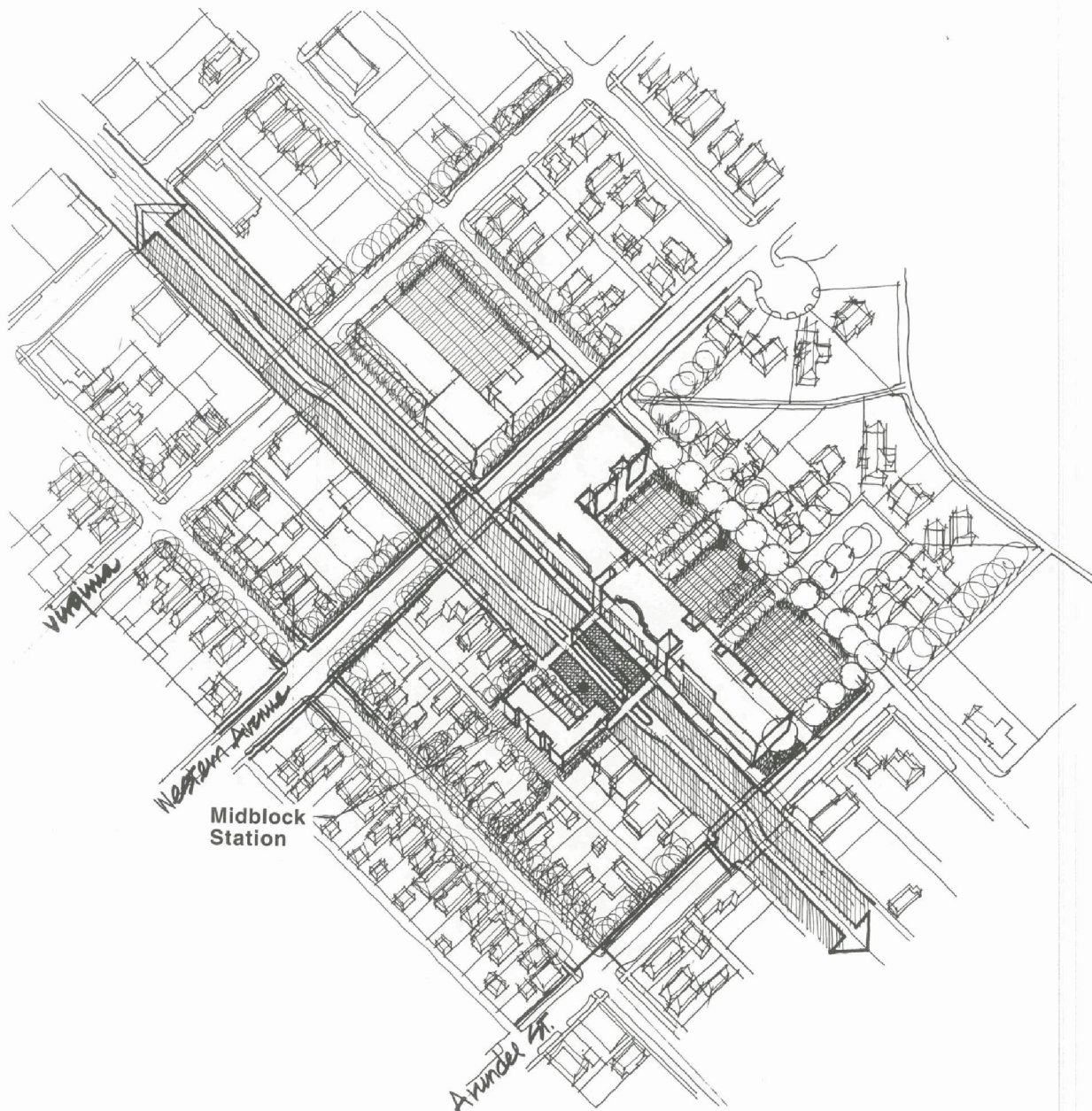
Both alternatives place the transit station at an existing intersection in the center of University Avenue. Here, in either situation, a station would be immediately across from the existing energy of the historic pattern of services in buildings grouped around the intersection.

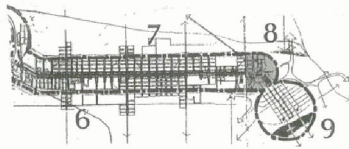


HYPOTHETICAL STATION DEVELOPMENT AT UNIVERSITY AND WESTERN

This diagram illustrates a hypothetical station and adjacent building development placed at the intersection of University Avenue and Western. In this example, the station is located at mid block where it would not interfere with any existing turning lanes on or off Western Avenue.

The diagram shows approximately 250,000 square foot of new building along the south edge of University Avenue. The development is served by parking courts to the rear. Newer pedestrian ways could be incorporated in longer blocks to improve neighborhood access to stations. In this particular case, a smaller 'infill' development project is shown among the historic building remnants that exist along the north edge of University Avenue.





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Capitol Area



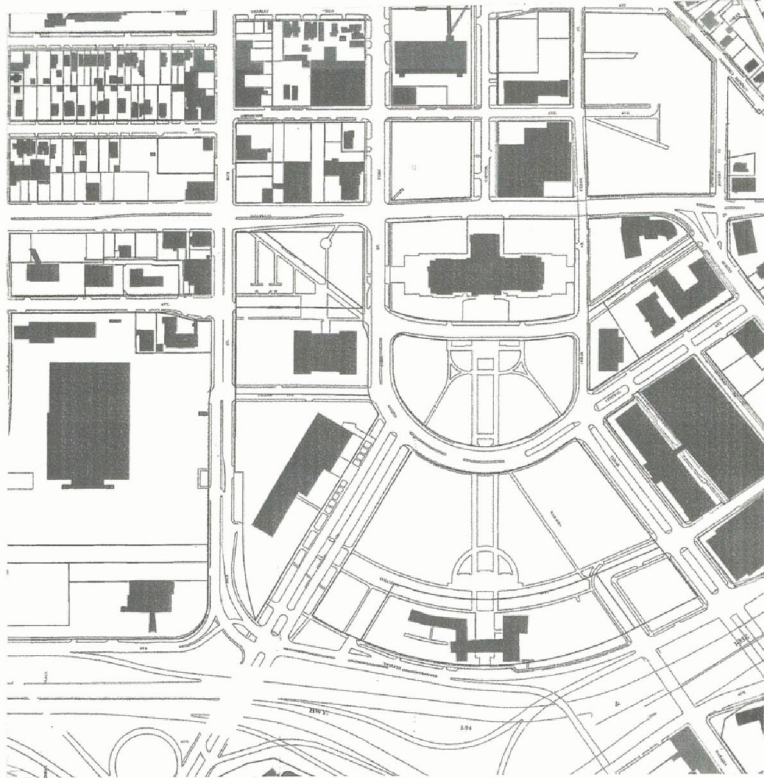
Issues

The Capitol Area is a major employment center, a destination and a point of transit interchange. The capitol, a unique building occupying a unique topographic feature, a terrace at the end or beginning of University Avenue corridor, is a ceremonial and symbolic place.

RECOMMENDATIONS

Symbolically, if not literally, transit access to the Capitol Area defines public access. As such, University Avenue transit should be of the first class. The Capitol station should be a public monument, not a back door. In the same way that the freeway bridges have been demonstrations of transportation design for the whole state in the heart of the Capitol Area, the transit system here should be expressed in a similar exemplary manner.

The dedicated busway is bracketed by Minnesota's two most important institutions, the State Capitol on the east and the University of Minnesota, on the west. As the principal eastern terminus of the corridor, this station should also express a quality for the whole avenue.



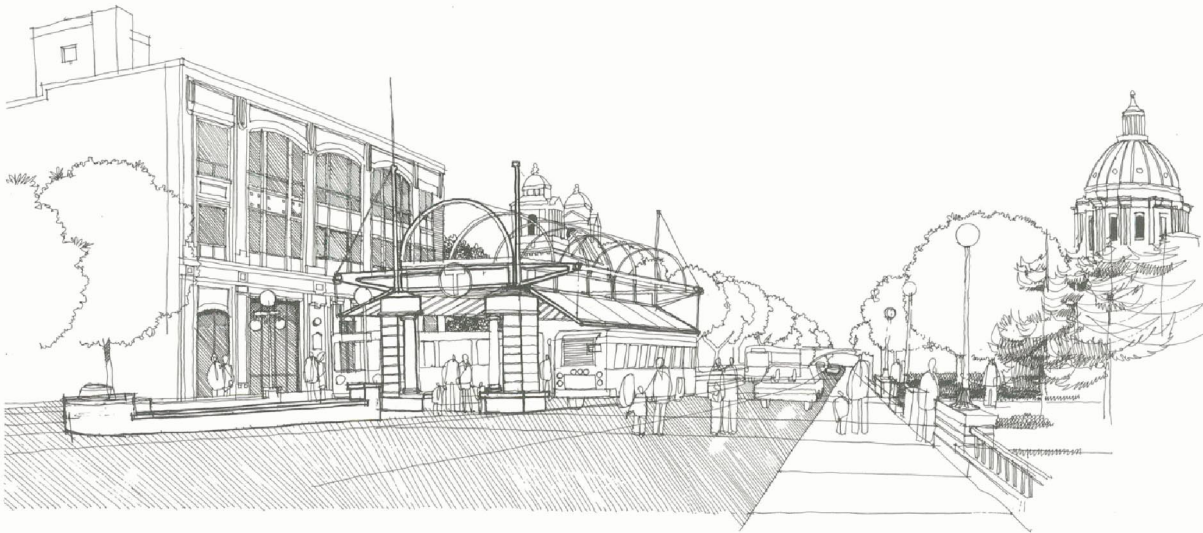
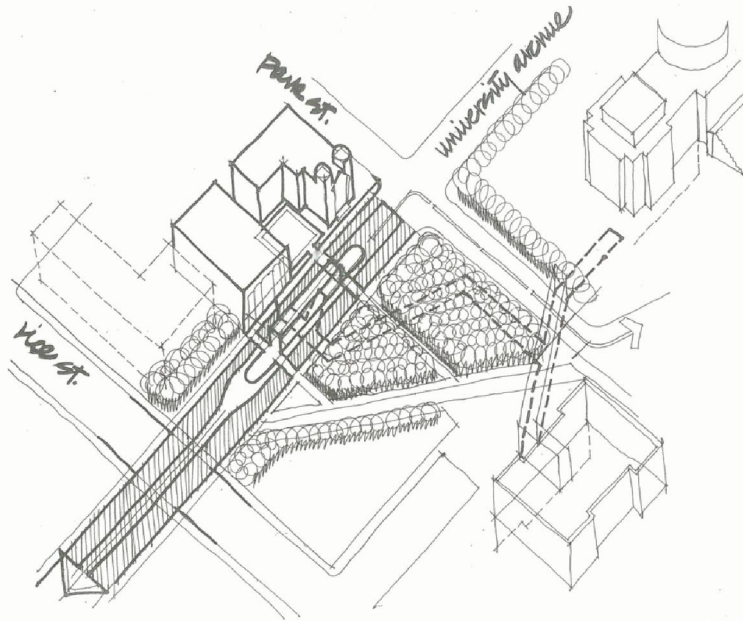
CAPITOL STATION

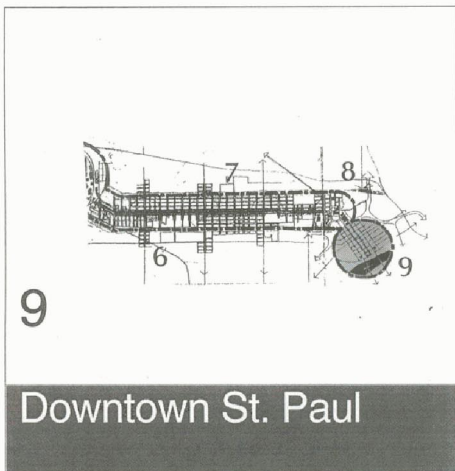
The proposed State Capitol Station would terminate the dedicated busway. From the State Capitol to the University of Minnesota east bank campus, the center of the right-of-way on University Avenue, this armature, having important destinations of symbolic statewide importance at either end, is a critical advantage to the success of this proposal.

The east end station in the Capitol district would be located immediately east of the University Avenue / Rice Street intersection. The station, standing in the middle of University Avenue, would become an identifiable landmark advertising the start or end of a new transit line in the heart of the metro area. The new station would connect to existing ground level sidewalk connections into the Capitol district, as well as via an underground tunnel that passes under University Avenue north and south to the Capitol Area buildings.

Station Identity and Character

This particular station would have a character that would relate directly to the neo-classical architectural character of the State Capitol. This architecture, along the northern edge of the Capitol district, should be similar in character to the pedestrian bridges that span the I-94 freeway corridor along the south edge of the Capitol district.





Downtown St. Paul

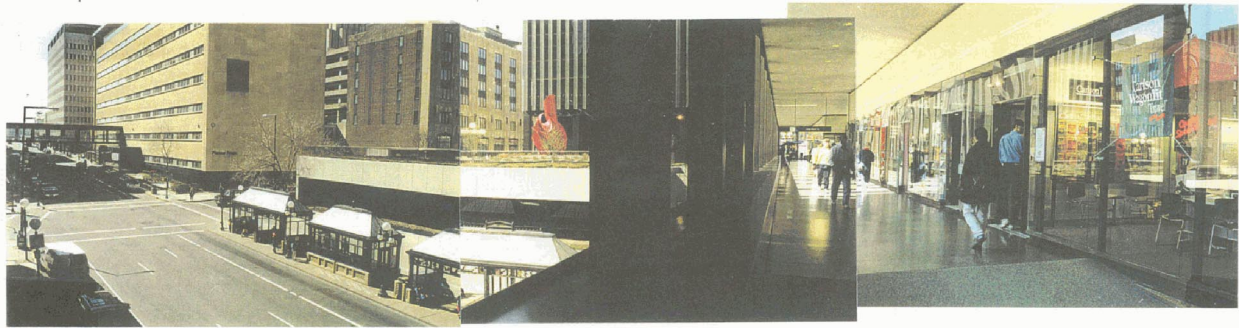
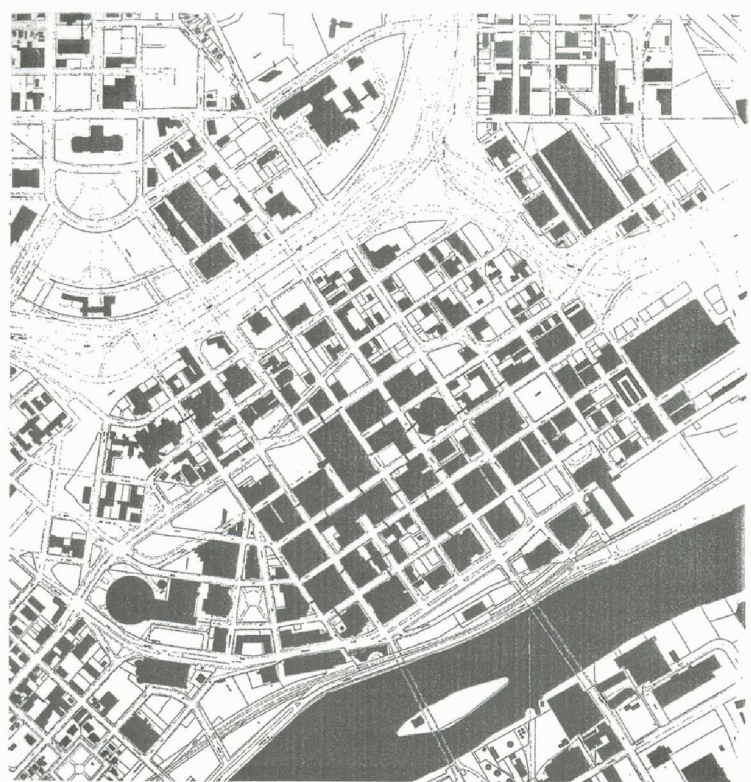
Issues

Downtown streets are dominated by large office structures, typically traversed via the second level and interconnected by the climate-controlled public skyway system. One way streets in the heart of downtown are a handicap to creating an imagible transit pedestrian-friendly environment because the bus enters downtown on one one-way street and leaves on another. In spite of recent suggestions to enliven the streets of downtown, with so little emphasis on the quality of design at the street level, the readability of transit as it relates to the skyway system is one of the principal issues of the design of downtown.

The principal transit streets of downtown St. Paul are Minnesota and Cedar, which run between the Mississippi River and the I 94 corridor. With such bleak street environments on Cedar and Minnesota (few windows, little emphasis on pedestrian-scaled street amenities such as benches, lighting, and street trees) a massive effort will be required to contract the 'back-door quality' of the streets, especially Minnesota. Without significant street activity, the skyway connections to the streets are particularly critical public spaces in downtown. Many of the small, generic bus shelters used downtown do not relate well to the particularity of the downtown environment.

Considerable effort is going into improving Wabasha as the primary pedestrian-friendly retail street; an effective link to transit on the adjacent blocks is needed.

The several large, consolidated bus stops that combine bus waiting areas and facilitate transfers between routes have been helpful in improving the positive presence of transit in the downtown, but the opportunity to link these major bus stops with the extensive skyway system has not been fully realized.

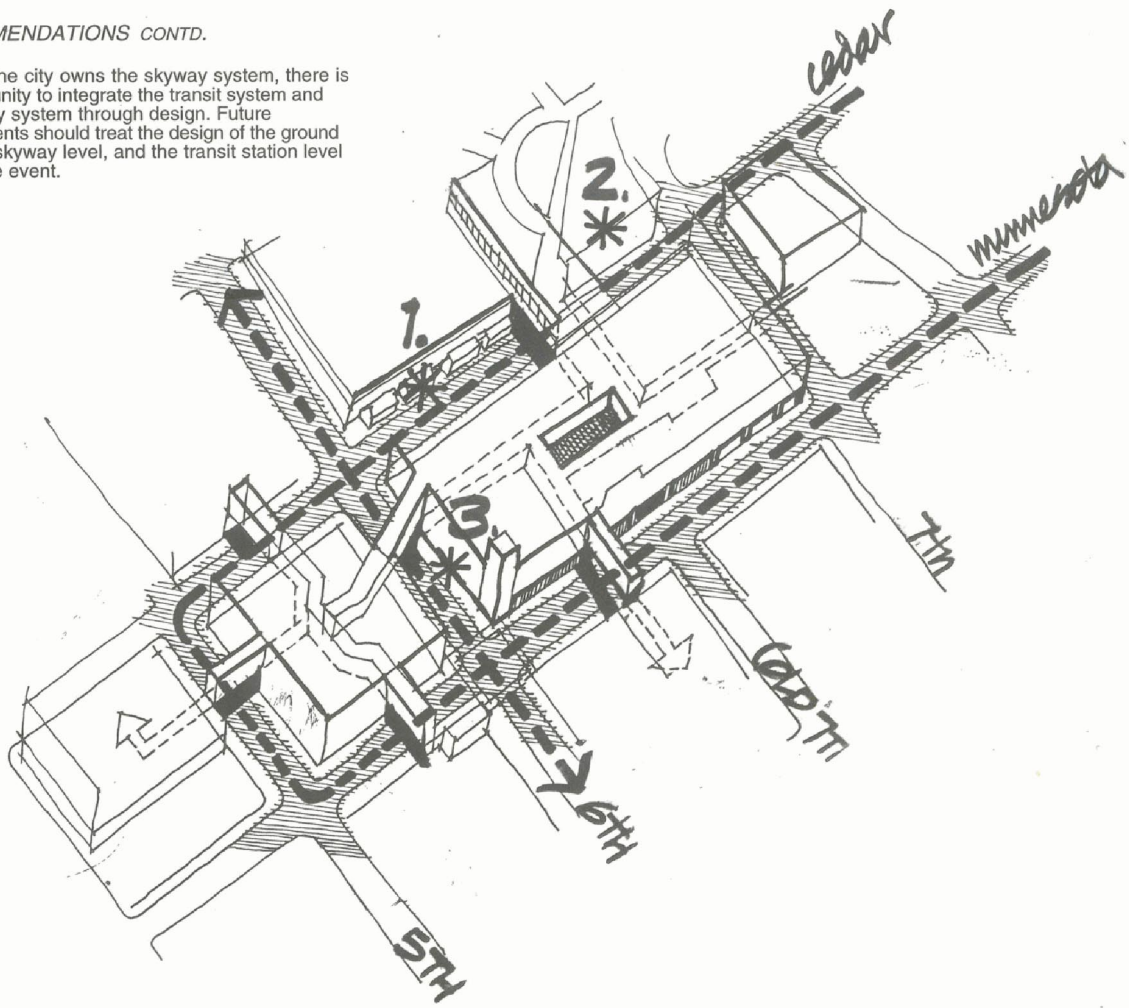


RECOMMENDATIONS

Improve the imagibility of the University Avenue route and strengthen its connection to downtown by reinforcing Minnesota and Cedar as a couplet that carries the University corridor into downtown.

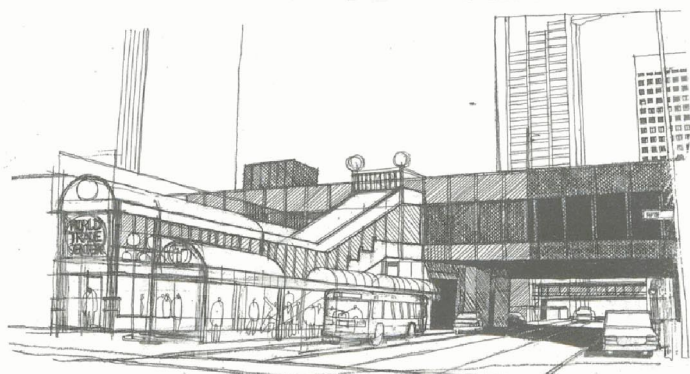
RECOMMENDATIONS CONTD.

Because the city owns the skyway system, there is an opportunity to integrate the transit system and the skyway system through design. Future improvements should treat the design of the ground level, the skyway level, and the transit station level as a single event.



EXAMPLE 1

Near Cedar and 7th, the typical transit cage stands isolated and vacant near the lobby of the World Trade Center and Dayton's. The drawing illustrates the simple integration of the transit stop and an existing building entrance. This type of coordinated development is more efficient and safe, affords the separation between the needs of a private commercial enterprise and public transit, and contributes to enhancing the street as the public realm.



CONCLUSIONS

The promise of University Avenue is to be the principal attractive urban core investment opportunity and connective element between Minneapolis and St. Paul.

Improved transit can be a cornerstone of CITY REBUILDING, but it must be designed to be structurally legible and attractive. It must project the image of urban stability and it must function efficiently and reliably.

Transit studies that relate real estate values to transit investment clearly indicate that design matters. Well-located, well-designed transit stations and their immediate environments contribute to the values of the districts that they serve.

Transit can lend a new and specific character to this avenue by creating a public realm that can encourage the interests of investors from the private realm. However, changes must be made. Changes in the development patterns on the avenue must be given incentives by public investment and commitment to infrastructure.

Transit reinvestment is critically important as a precondition to these changes.

University Avenue presents a unique opportunity to achieve the rebuilding of the Twin Cities urban core through improvements to transit. Its diverse opportunities are enhanced by the districts that flank it and give it character. Yet there is much open land directly on the corridor, and there are many existing structures that are changing uses. Open land and existing structures in changing markets represent an important opportunity for CITY REBUILDING.

This study is about ideas and design approaches for CITY REBUILDING using transit. It proposes the idea that transit decisions in the form of a structured busway with stations--a dedicated busway--can restructure the main stem of University Avenue and can also begin to rebuild the city. Without the legibility and permanent structure of the type of busway proposed here, and without consistent support for neighborhood reinvestment and transit-oriented job development along the corridor, however, transit will be at the mercy of the larger environment of the corridor and the market that follows the automobile and truck traffic on the avenue.

Commitment to continued transit service on University Avenue will be related to ridership trends. University Avenue is changing, and the neighborhoods along the avenue are changing. Instead of creating incentives for development that builds ridership, however, the recent trends on the avenue have promoted more automobile-oriented development. Neighborhood-based development is not well-served by the franchised big-box trend.

The central conclusion of this study is that a transit-related development pattern can only exist on a well-established corridor with significant destinations. This corridor is defined by the busway and by the significant destinations that define the stations. Just as the trolley gave structure to the avenue 70 years ago, the busway, with its efficient service, prepares its future. Significant destinations along the busway are created around character-setting developments at important intersections or within well-functioning neighborhoods and districts. On University Avenue with its sprawling right-of-way, stations mark these places. They are the potential locations of nodes of redevelopment that can guide future development. Stations represent a commitment to the future. They are the cornerstone of CITY REBUILDING.

Transit is, of course, only one part of the CITY REBUILDING process along University Avenue. As further development occurs at the edges of the Twin Cities, neighborhoods and districts along University Avenue will have to keep pace with the competition. Public investments in neighborhoods--in schools, parks and playgrounds, streets and street amenities (trees, lighting, seating, etc.), police presence, and fire protection as well as basic infrastructure updates--will be integral parts of any well-coordinated planning and design effort in the neighborhoods along the avenue.



The Specialty Building at the corner of Raymond Avenue will be redeveloped soon as an office structure.



Surface parking in front of big box retail along the Avenue has a profoundly negative impact on the public space of the street.



We return to the point where we began--an image of the avenue as an opportunity as yet largely unstructured by transit. A dedicated bus transitway with stations in the middle of the street would not only transform this picture of the avenue, but also improve the lives of the people who live and work along it.