CITIZENS LEAGUE REPORT

Needed:
A Policy for Parking
CITIZENS LEAGUE REPORT

Needed: A Policy for Parking

Prepared by
Citizens League Committee on Parking
Medora Perlman, Chairman

Approved by
Citizens League Board of Directors
January 18, 1978

Citizens League
84 South 6th Street
Minneapolis, Minnesota 55402
Telephone: 338-0791
INTRODUCTION

We have learned that parking is one of the most important public services in the Twin Cities metropolitan area. Its impact on transportation, land use, and our pocketbooks is substantial. Until now, the "parking problem" has been thought to be one of supply. "Will there be a place to park where I need one?"

Our committee, however, learned that the problem of supply, while significant in a few locations, is not the problem of parking in this region.

The problem is that, too often, the provision of parking has worked at cross purposes to our adopted transportation and land use goals, and it wastes our financial resources.

The solution lies in the application of a new, broader concept of "shared parking". This new concept of shared parking includes not only the pooling of common parking spaces used to service different activities, buildings or businesses, but also a faster turnover of vehicles in prime locations, use of a given parking facility for more hours during the week, and getting more occupants per vehicle.

We found that the reasons for pursuing the shared parking strategy are simple and compelling. Shared parking can reduce automobile trips, the consumption of land, and the cost of providing parking.

So long as parking supply is considered only in the context of whether or not there is enough, the response will tend to involve expenditures on parking facilities that may be counter to the broad public interest.
MAJOR IDEAS IN OUR REPORT

We find that . . .

* Parking is an expensive service that is generally provided Twin Cities users whenever and wherever they choose, at no direct charge to them. The money spent to provide parking for each passenger vehicle is about three-fourths of the amount the owner spends on gasoline.

* The availability of "free", convenient parking at most locations has contributed to a mobile, auto-dependent life style that most Twin Cities residents find attractive.

* However, current parking policies help facilitate the continuation of certain transportation and development patterns that can have serious negative consequences.

* Local ordinances in this region tend to require sufficiently large amounts of parking at new developments, that the providers have little incentive to encourage the sharing or conservation of parking . . . since this would only add to an unused surplus.

* Municipalities, inadvertently, reduce the fiscal incentive for diversified developments when they require set parking to building size ratios that do not allow for the reduced parking that is needed to service establishments having different peak time demands for parking.

* High parking requirements also increase the total amount of land needed for a development . . . providing some incentives for business to locate new facilities in unserviced areas, where land is more readily available and affordable.

* The decentralization of business in turn generates additional and longer auto trips, and reduces the opportunity to utilize alternatives to the single-passenger car.

* Property taxes on privately provided parking spaces vary greatly, with the rate tending to be inversely related to demands generated for new public expenditures as road capacity and other services need to be expanded.

* The relative price and convenience of parking are important factors in determining where one goes on discretionary trips, and the choice of transportation on work trips.

We conclude that . . .

* Parking policy should be developed and used as a tool to promote the public transportation and land user management interests of the region.

* Parking policy should encourage the efficient use of transportation and land resources associated with parking by:

  -Allowing property owners to construct or pave as little parking space as is actually needed.
  -Giving preferential treatment to car pools and van pools over driving alone.
  -Rewarding the provision of shared parking among establishments generating different peak periods of demand for parking.
  -Reducing the relative tax burden of high-value private parking vis-a-vis surface lots on inexpensive land, and public parking.
-Providing short-term and infrequent parkers priority access over all-day, single-occupant commuter parkers.

We recommend that...

* The Minnesota Legislature should specifically charge the Metropolitan Council to develop plans and proposals that encourage better land use and transportation management through policies that promote shared-use parking.

- The Metropolitan Council should develop specific parking policies to encourage diversified development and multi-occupant transportation.

- The Metropolitan Council should encourage local communities to allow a developer the option of paving or constructing as little parking as he feels would be needed... as long as adequate provision has been made to ensure that additional parking will be provided if experience shows that it is needed.

- Employers providing free parking should be assisted in calculating the cost of providing the service. They should then provide equal benefits to other employees by either 1) charging the employee parkers the true cost, or 2) reimbursing other employees using transit or para-transit up to an equal level of expense.

- The Metropolitan Council should develop a legislative proposal to better equalize the tax burden of property used for parking, and reward private parking facilities that are operated in accordance with specific public objectives.

* The business communities in downtown Minneapolis and downtown St. Paul should work together with their city governments to utilize parking more fully in the broad community interest.

- Steps should be taken to develop a more visible and convenient system of off-street parking for short-term and infrequent users.

- A short-term parking rate structure should apply to an entire lot or ramp, where that amount of short-term parking is justified by demand. Or, the most convenient section, say the first floor of a ramp, should be set aside for persons paying the short-term rate.

- In parking facilities primarily serving all-day parkers, a supply of preferential space should be set aside for car or van pool vehicles paying on a monthly basis.

- A system should be developed to provide parking at little or no charge to shoppers on evenings and weekends as part of a major, coordinated effort to create an "enriched shopping environment" in each of the two downtowns.

* The University of Minnesota at its Twin Cities campuses, and the State of Minnesota at the Capitol complex, should launch model parking management programs.

- Parking rates at an adequate number of close-in locations should be geared to short-term parkers. The next priority should be given to employees and students who regularly participate in a car pool.

- Contract lots and those carrying all-day rates should be located at the outer edge of the campus or in other areas of relatively low demand.

- The State of Minnesota should continue its parking price incentive system for car and van pooling and expand the portion of space allocated for short-term parking by the general public... particularly during the legislative sessions.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td>iii</td>
</tr>
<tr>
<td><strong>MAJOR IDEAS IN OUR REPORT</strong></td>
<td>iv</td>
</tr>
<tr>
<td><strong>PARKING IN THE REGION</strong></td>
<td>1</td>
</tr>
<tr>
<td>The Present Situation</td>
<td>1</td>
</tr>
<tr>
<td>Our Proposal</td>
<td>6</td>
</tr>
<tr>
<td>Specific Recommendations</td>
<td>7</td>
</tr>
<tr>
<td><strong>DOWNTOWN PARKING</strong></td>
<td>9</td>
</tr>
<tr>
<td>The Present Situation</td>
<td>9</td>
</tr>
<tr>
<td>Related Findings</td>
<td>11</td>
</tr>
<tr>
<td>Specific Issues</td>
<td>14</td>
</tr>
<tr>
<td>Our Proposal</td>
<td>15</td>
</tr>
<tr>
<td>Specific Recommendations</td>
<td>17</td>
</tr>
<tr>
<td><strong>PARKING AT THE UNIVERSITY AND CAPITOL</strong></td>
<td>19</td>
</tr>
<tr>
<td>The Present Situation</td>
<td>19</td>
</tr>
<tr>
<td>Our Proposal</td>
<td>21</td>
</tr>
<tr>
<td>Specific Recommendations</td>
<td>22</td>
</tr>
<tr>
<td><strong>PARKING SHORTAGES</strong></td>
<td>24</td>
</tr>
<tr>
<td><strong>BACKGROUND AND DISCUSSION</strong></td>
<td>26</td>
</tr>
<tr>
<td><strong>ABOUT THIS REPORT</strong></td>
<td>27</td>
</tr>
<tr>
<td><strong>FOOTNOTES</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>APPENDICES</strong></td>
<td>31</td>
</tr>
<tr>
<td>Appendix A - Parking Spaces Provided and Their Cost</td>
<td>31</td>
</tr>
<tr>
<td>Appendix B - Parking Use at Retail Centers</td>
<td>33</td>
</tr>
<tr>
<td>Appendix C - Sample Municipal Parking Requirements</td>
<td>35</td>
</tr>
<tr>
<td>Appendix D - Minneapolis Proposed Policies for Building Public, Fringe Parking Facilities</td>
<td>36</td>
</tr>
<tr>
<td>Appendix E - Possible Approaches to the Taxation of Parking Facilities</td>
<td>37</td>
</tr>
</tbody>
</table>
The Provision of Parking Space for Vehicles Has a Significant Influence on Major Transportation and Land Use Concerns of the Region that Should Be More Fully Reflected in Public Planning

The Present Situation

Parking is a very expensive service that is generally provided Twin Cities users whenever and wherever they choose, at no direct charge to them. For each of the region's 1½ million vehicles there are provided an estimated 3½ parking spaces. Of these, only 100,000 spaces, or 2%, are at locations where a fee is charged to the parker.¹

Parking arrangements now facilitate a mobile life style.

This region's ready availability of convenient parking has contributed to a mobile and independent life style that most Twin Cities residents find attractive. Over the last several decades, the Twin Cities area has developed an auto-oriented transportation system that not only provides a rather ample roadway capacity, but also generally assures that there will be a convenient parking place to store one's vehicle at the end of the trip.

Since the early 1950s, suburban municipalities throughout the region have consistently required private developers to provide a substantial, if not excessive, amount of parking for any new buildings constructed.² With ample facilities to move and store their vehicles, Twin Cities residents have been relatively free from transportation constraints as to where they live, work and shop within the region.

Even downtown Minneapolis and downtown St. Paul have been relatively accessible by automobile at a very modest cost to the user in inconvenience, congestion and parking charges. Although occupancy levels are not regularly monitored throughout either of the two downtowns, recent consultant studies, testimony received by the committee, and personal observation of committee members confirms the availability of convenient parking downtown. A 1974 study by Barton-Aschman Associates, Inc., for the City of St. Paul found that, "During the period of peak parking accumulation on a typical day in May, it was estimated that 76% of the total spaces in the study area were occupied."³ Similarly, a Barton-Aschman inventory for Minneapolis in 1977 found that the overall peak occupancy for the business district was 73%.⁴

Parking ramp operators in both downtown St. Paul and downtown Minneapolis indicated they maintain pricing policies designed to assure that some parking space is available in their ramps at all times. The ample supply of parking within the central core of the downtowns has even been somewhat of a problem for the cities in trying to attract daily patrons to use municipal parking ramps at the fringe or outer edge of the central business district.

Twin Cities residents have taken advantage of their auto mobility as evidenced by unusually high rates of auto ownership and use, low population density, and dispersed trip destinations. In 1976, there were only 1.6 persons per passenger vehicle in the metropolitan area, and there were 1.7 passenger vehicles per dwelling unit.⁵ The 1972 National Transportation Report prepared by the U. S. Department of Transportation...
revealed that the Twin Cities area has a smaller percentage of families without cars (12.9%) and a higher percentage of families with two cars (40.6%) than in the eleven other metropolitan areas mentioned.

According to the U. S. Bureau of Census, the Twin Cities metropolitan area in 1970 ranked 19th in population density among the 20 most populous urban areas in the country. Just as the residential population has dispersed throughout, and even past, the seven-county metropolitan area, manufacturing, office space, and retail centers have also dispersed.

The Problem

Concentration on the private automobile for providing access to the goods and services of the region has contributed to a diffusion of growth, a high degree of automobile dependency, and a low level of pedestrian and transit alternatives to the use of the automobile. This should be a major concern to the region for three fundamental reasons:

First, it leaves the region particularly vulnerable to the adverse consequences of more expensive or scarce petroleum. While the committee did not try to reach any conclusions as to the magnitude of the region’s potential energy problems, it did conclude that it is important to work at reducing this vulnerability.

Second, it has become increasingly apparent that the residents of the Twin Cities will no longer allow new roadway construction or roadway capacity to expand simply to meet demand. If the Twin Cities area is to continue to prosper and provide its residents with good access throughout the region, better use will have to be made of existing transportation facilities.

Third, once automobile dependency is accepted, there is a great pressure for the region to decentralize. There is a natural inclination on the part of both families and businesses to build farther out, where land is more readily available and affordable.

Parking is expensive.

The cost of providing current levels of parking in the region is substantial. The direct cost alone of providing and maintaining parking stalls for the region is about $450 million, or $350 per car each year. Put another way, the money spent on parking for each passenger vehicle is about three-fourths of the amount the owner spends on gasoline.

Additionally, transportation and development patterns that are influenced by parking accommodations have considerable indirect costs to the region. For example, once municipalities began requiring developers to provide a considerable amount of off-street parking for any new buildings, it became easier and more economical in many cases to isolate developments with their own private rings of parking intercepting vehicles as they left the public roadway.

This in turn had the effect of making the region’s residents increasingly dependent on the automobile to gain access to these parking-oriented developments. With parking self-contained on the site, there was little incentive for individual developments not to become more dispersed throughout the region, reducing the opportunity for residents to combine activities at a single destination point.

While parking requirements are only one of the factors influencing regional development patterns that have occurred in recent years, it is clear that individual developments with abundant self-contained parking help create additional traffic congestion, accidents, air pollution, energy consumption, land
use, patterns of sprawl, and even storm water run-off from the extra paved surface in the parking lots.

Most parking costs are hidden.

The practice of charging user fees for parking is limited to a few Twin Cities locations where the space for parking is constructed, land is expensive, or the demand is generated by special entertainment events. Users pay for parking in the Minneapolis and St. Paul central business districts, the University of Minnesota, the State Capitol, metered on-street locations throughout the region, International Airport, and locations such as Metropolitan Stadium and the State Fairgrounds during special events.

This means that about 87% of the area's work force is provided parking without any direct charge to them. It also means that over 90% of the region's retail sales takes place at locations where parking is provided without a direct charge to the parkers. Residential parking normally comes with the housing unit at no separate charge. However, it is not uncommon for apartment buildings to charge extra for enclosed parking. When parking is provided without direct charge, its cost is hidden.

Since the developer, commercial tenant or owner of a building must bear the cost of providing "free parking", the cost is hidden to the user in about 98% of the spaces in the region. Individual parkers have little reason to understand how much it costs, or why it is important to reduce costs through shared parking.

Cost of providing parking varies.

The cost of providing a parking stall varies widely in the metropolitan area. Blacktopped surface parking, without landscaping or storm-water treatment on relatively inexpensive land at the fringe of the metropolitan area can run as little as a few hundred dollars per stall, while underground structure parking on expensive land is likely to cost in excess of $10,000 per stall. In between, the costs fluctuate widely, depending on the site, size, location and design of the facility.

Property tax alone on a unit of private structure parking may exceed the total annual cost of providing paved surface stalls at many metropolitan locations. In a random survey of structure parking in the metropolitan area, we found that the property taxes tend to run from $100 to $250 per unit per year.

On the other hand, developers told our committee that the construction cost of providing paved parking generally runs between $200 and $800 per stall, with fully improved shopping center parking generally running only $400 to $500 per stall. At that rate, wherever land costs are relatively low ($1.50 per square foot or less), the total cost of providing and maintaining the surface stall is likely to be less than the taxes alone on most ramp space.

The tax structure for parking stalls is a particular problem in three important ways:

First, the lower cost of providing parking on relatively inexpensive land at the edge of the metropolitan area has been one factor that has encouraged decentralization and sprawl. Only recently have some firms begun to view the option of locating in a downtown location as an opportunity to avoid any direct company expense for parking.

Second, the higher taxes on structure parking may encourage some firms to choose surface parking over structure parking. For example, we learned that a major Twin Cities employer has found that it would consider additional
structure parking rather than expand surface parking, if it were not for the difference in market value and resulting taxes on the structure parking.

Finally, the ability to avoid property taxes on a parking structure has tended to make it economically more feasible for government to build parking structures than for private developers to do so. When this occurs, the public not only loses tax revenues from the property, but also may lose additional taxes indirectly by lowering the value of competing private parking facilities which suffer a loss of revenue from the public competition.

The cost of on-street parking involves special capital, maintenance, traffic flow, safety and land-use factors. Our committee received testimony suggesting that the most expensive of all parking is that which is provided at the public street curb. It was pointed out that not only is the per-square-foot cost of building and maintaining streets much higher than off-street parking, but cars parked on streets makes street maintenance and snow removal much more expensive.

On the other hand, it was also suggested to our committee that curb space used for parking would be needed to accommodate emergency stops in any case, and that non-rush-hour use of curb lanes for parking may be the only way to put this excess road capacity during this period to good use.

Since the cost of providing parking is largely fixed, the incremental cost of meeting relatively short or infrequent peak demands is high, and the incremental cost of increasing off-peak usage is low. For a variety of reasons, the use of most parking spaces is concentrated during a modest portion of the total day and week.

There is too much parking provided.

Our committee found that much of the region has excess parking capacity. Zoning requirements frequently stipulate the provision of far more parking than is needed even during periods of peak demand. For example, most communities have parking requirements that translate into 8, 10, or more parking spaces per 1,000 square feet of gross leasable floor space. This is despite the fact that for many years 5.5 parking spaces per 1,000 square feet has been something of an industry standard of what is felt to be needed for retail centers.

However, the recent study by Barton-Aschman Associates suggests that even the 5.5 standard may be excessive. Over a four-year period they had taken aerial photographs of the parking lots of shopping centers in cities at the busiest times of the day on the two busiest days of the year (the Friday following Thanksgiving and the Saturday before Christmas). They found that during these peak periods the parking use was seldom up to the 5.5 standard.

In the Twin Cities, Barton-Aschman was able to take the pictures only in 1973 and 1974, since cloudy weather prevented their taking pictures on the selected days in the other two years. Of five major regional centers photographed, only one exceeded the 5.5 standard in usage, and that was with 5.59 cars per 1,000 square feet on the Saturday before Christmas in 1973, and 5.74 cars per 1,000 square feet of leasable space on the Saturday before Christmas in 1974. The aerial photographs of five regional centers between 300,000 square feet and 500,000 square feet of gross leasable space showed that at these peak periods they tended to be utilizing 3 or fewer parking spaces per 1,000 square feet.

Aerial photographs of ten discount stores
between 100,000 and 150,000 square feet showed a high of 6.72 parkers per 1,000 square feet before Christmas in 1973, while most of the stores ran well below the 5.5 standard on the peak days in both years covered.

The high parking requirements set by municipal governments and mortgage lenders have encouraged developers to build their own self-contained parking. Several developers indicated to our committee that shared parking provides a means of improving the quality of a project, while reducing the amount of space that is actually needed for parkers. However, government requirements generally prevent the reduction of the amount of parking even though less is needed, and mortgage lenders tend to want each building financed to have its own supply of parking. Accordingly, developers often are discouraged from working out shared parking arrangements.

While the most flagrant under-utilizations of parking occur where the supply exceeds even the peak demand, under-utilization also occurs whenever parking spaces are not used much of the time, or when they are used mainly by vehicles containing single occupants.

**Abundant parking discourages efficient transportation and land use.**

With abundant parking required by code at the location of most new development, the convenience of—and dependence on—automobile trips has increased, and the opportunity for less automobile-dependent options has been effectively thwarted. Because our system of automobile access in this region works so very well, residents and local officials have seen little need to provide alternatives. For example, the developer of the Galleria shopping center immediately south of Southdale noted to our committee that it is extremely difficult for a pedestrian or a bus rider to reach the Galleria. "A person who wants to go across the street from the Galleria to Southdale has to go by car."

In a similar vein, employees working at the office center across France Avenue from Southdale also must get into their cars if they want to go across the street over the noon hour to shop or eat lunch.

Public rules, regulations and procedures now in use often make it difficult, or even impossible, to mix some complementary land uses in a shared parking arrangement... even when a municipality wants to see such development patterns.

In talking with municipal planners and consultants, the committee found that local officials desire well-planned developments with parking shared among complementary land uses. However, it is more difficult for both the community and the developer to work out special arrangements for a project that deviates from standard practices and zoning requirements. Negotiated arrangements are subject to extra time and risk, as well as an element of second-guessing by others who may not like some aspect of the agreement.

Shared parking, when pursued, does present some special management problems. For example, at a given location it may be appropriate to put together some combination of hotel accommodations, office space and retail sales. However, it can be extremely difficult to stage the different developments in such a way that they reinforce each other without incurring substantial land holding costs.

There is also a problem in achieving mutually agreeable levels of upkeep of shared facilities where there is not common management or ownership.

Despite these problems, the committee learned of a number of instances where
shared parking, with complementary patterns of demand, has succeeded in substantially reducing the amount of parking necessary, conserving land, and eliminating some automobile movement that otherwise would have occurred.

Accessibility and cost of parking to the user have been important factors in achieving development and business activity in the Twin Cities. The cost of parking downtown has historically been offset by the availability of good access by many for public transit. However, changes in residential patterns of Twin Cities area employees, particularly those at a professional or managerial level, along with improved private automobile access, have reduced the influence of public transit access on business locations.

In discussing why businesses move, the committee found that business decision-makers felt it important that key personnel be provided good automobile access, including convenient parking.

An increased demand for parking has been a factor in some employers' deciding to relocate facilities to accommodate expansion needs. In a similar vein, discretionary trips, such as for shopping or entertainment, are particularly influenced by the access and cost of parking.

Our Proposal

Region should use shared parking as a tool.

Our committee concluded that state legislation, metropolitan development guides, and municipal planning should utilize parking as one of the tools by which the public encourages more efficient and environmentally sound transportation and land use practices. We feel that the storage of vehicles is a basic element of transportation that can and should be used to encourage transit and para-transit use and to discourage driving alone. We feel the amount, cost and configuration of parking are major factors affecting the density and design of development which can, and should, be used to encourage the development and use of diversified centers and other complementary land uses. The complementary land uses, in turn, can reduce the number of trips taken in the region.

We further feel that energy consumption, congestion, urban sprawl and air pollution are related problems that can also be ameliorated to some degree as parking is viewed as part of transportation and development management.

Employers and public agencies should adopt priorities for parking.

Parking policies should be developed to strongly encourage shared rides, and to give visitors and other short-term or infrequent parkers priority over all-day, single-occupant commuter parkers. The latter is important because short-term parkers use each space more efficiently, and because long-term parkers can more easily arrange shared rides due to the nature of their trips. Priorities for preferential parking should generally run from the handicapped, to the short-term users, to the infrequent users, to multi-passenger vehicles, to other employer or provider-designated priorities, to the single-passenger commuter.

We feel that employers should use company-provided employee parking to encourage transit and para-transit ridership. It is important to manage work trips because they are the major source of peak load traffic demand, and they represent a largely unrealized opportunity for encouraging shared rides.

Employers are in a special position to be able to coordinate shared-ride
activities, and to enforce parking pri-
orities which encourage ride-sharing. The experience here in the Twin Cities area shows that preferential parking policies by employers can be effective in encouraging shared rides. For example, the 3M Company found that assigning commuter vans choice parking stalls is one factor in their considerable popularity with employees.

We also feel that ways should be explored to enable employers to share the cost of the transportation burden created by work trips during rush hours and by the provision of parking stalls for single-occupancy vehicles.

**Cities should adopt new parking policies that encourage a better use of land.**

Parking policies should be used to help encourage major diversified centers and other integrated land uses, long advocated by the Metropolitan Council. We feel that municipal ordinance requirements for off-street parking should be redirected in light of changing conditions to facilitate complementary land uses in areas with "free parking".

To do this, local governments should provide incentives for pooled parking among diversified users . . . particularly when the time demands for parking vary, and when parkers are likely to combine visits to different businesses. We feel local parking policies should be oriented to avoid providing more parking than will be used. We would also like to see parking policies used to encourage the provision of convenient pedestrian and bicycle access between various components of an integrated development.

Public parking policies should also be developed to better equalize the total tax or public assessment charges against parking stalls . . . regardless of the type, cost, ownership or location within the region. Our committee does not know that ramp parking is necessarily any better than surface parking, but we do feel the public tax policy should have somewhat less influence than it now appears to have in such decisions. The decision as to whether a ramp or lot is developed should be based on functional considerations, not the relative tax burden.

**Specifically, We Recommend:**

The Minnesota Legislature should specify charge the Metropolitan Council to develop plans and proposals that encourage better land use and transportation management through policies that promote shared-use parking.

**The Metropolitan Council should start with its own policy statements.**

The Metropolitan Council should begin to incorporate strong parking policies into its own policy statements and to assist municipalities in better utilizing parking in the public interest.

1. The Council should include in its Development Framework and Transportation Planning Guide policies which discourage parking practices tending to waste land or support inefficient transportation uses . . . and which help encourage diversified development and multi-occupant transportation through parking policies . . .

2. Local communities should be encouraged to incorporate a parking component in their "comprehensive plan", one which would reinforce regional transportation and land use objectives.

3. The Council should work with local officials to develop model parking policies and zoning requirements, based on research utilizing data collected and evaluated for this region.

4. The Council should make technical
assistance available to communities to develop their own parking policies, ordinance requirements, and specific plans for given locations.

(5) The Council should encourage local communities to allow a developer the option of paving or constructing as little parking as he feels would be needed ... so long as adequate provision has been made to ensure that additional parking will be provided if experience shows it is needed. Communities not willing to go this far should, at least, reduce the minimum parking requirements where there is shared parking, transit access and/or a para-transit program.

(6) The Metropolitan Council should encourage local communities to develop guidelines by which adjoining commercial developments, where appropriate, would be encouraged, assisted, or even required to share their parking.

Metropolitan Council should help employers to identify their parking costs.

The Metropolitan Council, in conjunction with transportation agencies, should encourage Twin Cities employers and their landlords to identify the costs of providing employee parking, to set parking priorities, and to promote the use of multiple-passenger transportation alternatives.

(1) The Minnesota Department of Transportation (Mn/DOT) and the Metropolitan Transit Commission (MTC) should prepare and disseminate information to all employers and others to calculate the cost of providing employee parking at a given location.

(2) Employers providing free parking should be encouraged to calculate the cost of providing the service, and provide equal benefits to other employees by either charging the employee parkers the true cost, or reimbursing other employees using transit or para-transit up to an equal level of expense.

(3) Efforts should be made to get the Internal Revenue Code and corresponding Minnesota tax regulations changed to allow an employee to receive reimbursement of transit and para-transit expenses without realizing taxable income. If this result cannot be readily achieved by administrative ruling, statutory relief should be pursued through Congress and the Minnesota Legislature.

(4) Landlords should be encouraged to work with employers and the municipality in which they are located to reduce parking stall to building space ratios where a transit and/or para-transit reimbursement program is in effect.

Parking incentive is proposed to encourage public objectives.

The Metropolitan Council should develop a legislative proposal to influence parking through tax incentives. This proposal should be designed to serve three important objectives:

First, it should provide a means of rewarding operators of parking facilities that are operated in accordance with specified public objectives.

Second, it should help equalize the tax cost of providing parking in private structures as compared to public parking facilities and surface lots.

Third, it should combine any reduction in property tax on parking structures with a tax measure that reflects the indirect cost of parking as an element of the transportation and land use system.
Conditions Associated with Parking in Downtown St. Paul and Downtown Minneapolis Present Special Challenges and Opportunities

The Present Situation

Perceived difficulty in parking downtown is greater than reality.

The perceived problem of being able to find parking downtown is much larger than the actual problem. For example, a survey of one organization with meetings at a downtown location found that those who regularly attended the meetings tended to feel there was no parking problem. However, those who did not attend regularly felt there was a serious parking problem. It is understandable that the infrequent user who has difficulty in finding a convenient parking location, and then negotiates his automobile to the specific facility—only to find that it is full—is likely to conclude that parking is in short supply. The fact that there may be three other parking facilities within a block and a half with space available does not alter this perception.

The way in which parking facilities tend to be managed also helps create an image that parking may be in short supply. The operators of prime location parking facilities are able to control their levels of occupancy by adjusting their rate schedules, and the number of contract parkers.

The operators make efforts always to have some short-term parking available, but without leaving any more unused parking than is necessary to maintain this availability. Thus, the infrequent user arriving at a peak utilization period may get the impression that he was almost unable to find a parking spot in a given ramp, since there were only a few stalls left. What he does not know is that the ramp is being managed in such a way that there are always just a few stalls left during the peak period of demand.

There is, therefore, more convenient parking available in the two downtowns than the infrequent user thinks. Unfortunately, he does not know where to find it.

Infrequent parker does need more help.

Although there is generally an adequate total supply of parking, it is difficult for the infrequent user to locate available parking in the two downtowns . . . particularly at certain times of the day, during special events, and before Christmas, when even the frequent user may have difficulty.

As noted on page 1, in terms of the number of parking spaces available and their utilization rate, it does not appear that either of the two downtowns has an overall parking shortage. There is, however, a problem for the infrequent user—who may come downtown only during peak demand periods—and is then unable to secure parking at the one or two locations in which he or she is most familiar.

Even during peak periods when there is not a peak demand, parking downtown can be difficult for the infrequent user to locate and use. First, the infrequent user may not know the location of
convenient parking to his or her specific destination downtown. In addition, the driver receives very little assistance in locating parking facilities and more specifically where their entrance lanes are located.

Second, the difficulty in finding a convenient parking facility is compounded by downtown traffic patterns, necessary lane changes, and one-way streets.

Public actions now have major market influence on parking.

The parking markets in the two downtowns have been increasingly influenced by public actions during the last few years. In different ways, the cities of St. Paul and Minneapolis have both moved to a much more active role in the provision of parking downtown.

Minneapolis has a fringe parking policy.

The City of Minneapolis developed a "fringe parking policy" of building municipal parking ramps at the edge of the downtown and limiting parking spaces within the core area, as part of a 1968 plan for development downtown to 1985. From 1968 to 1977, the city reduced on-street parking downtown from 2,792 to 2,313 spots; only 220 of those spots remaining are in the central or "core area".10

As part of a national air pollution control program, the city has developed a transportation control plan, and in 1974 entered into "stipulations of agreement" with the Minnesota Pollution Control Agency on portions of the plan. In the stipulations of agreement, the city indicated an intention to construct fringe parking facilities for 7,000 vehicles, with the last portion to be built in 1977. However, at this point the city has built only three ramps that were part of this fringe parking plan: The Government Center ramp with 1,217 spaces, the Orchestra Hall ramp with 620 spaces, and the Auditorium ramp with 567 spaces, for a total of 2,404.

The stipulations of agreement also included a statement of intention to "promote new ordinances restricting . . . the availability of additional downtown parking spaces." During the years that the city's fringe parking policy has been informally in effect, the city has tried to discourage the provision of additional parking spaces within the downtown core.

Major new developments in Minneapolis in recent years have received authorization for some adjacent parking . . . but not enough to meet fully the demand they generate. For example, when the IDS Center was built, the city reportedly pressed the developers to limit parking within the building to what was absolutely necessary for the financial well-being of the project. The additional parking need for tenants was provided in the ramp built in conjunction with an energy center for the IDS Center several blocks away.

Twin City Federal Savings and Loan Association was allowed to add ramp parking when it rebuilt and expanded its building downtown. However, the new space was designed, at significant expense, so that it could be converted to non-parking uses at some future date.

A recent staff report proposes a set of parking policies that would tie the construction of fringe parking ramps to specific new real estate developments (see Appendix D). Under the plan, the city would build a fringe ramp intended to service a new high-density development, provided that the new development would create 50% or more of the demand for the new
ramp, the development would generate more than $10 a square foot in annual tax revenues, and that debt service on the ramp not exceed 25% of the tax revenues from the development during the first five years.

Developments generating less than $10 a square foot in tax revenue would be provided a ramp only if any operating deficits were assessed against the benefited property owners.

Parking is used as development tool in St. Paul.

The City of St. Paul appears to be pursuing a policy of using parking as a development tool. In the case of the new Arts and Science Center development, the city has built an underground parking ramp with tax increment financing, in part as a means to get public funds into the project to get it going.

In the case of a combined hotel and retail development, public assistance has been provided for parking indirectly through the St. Paul Port Authority. An underground garage will be built under the two facilities with Port Authority funds, and Port Authority project reserves are placed at risk, if parking revenue is not adequate to cover debt service and other ramp expenses.

Parking Commission is established in St. Paul.

Earlier this year a group of business and labor people organized to promote a community development in St. Paul (Operation 85) issued a report recommending the creation of a public parking commission. The study found that St. Paul's having no agency with central responsibility for parking had led to a confused and uncoordinated public parking policy. The Operation 85 committee felt, among other things, that St. Paul

should work towards a policy of abundant free parking downtown.

In accordance with the Operation 85 proposal, a parking commission was created and held its organizational meeting September 30, 1977. One of the commission's prime responsibilities will be to develop a coordinated parking plan for St. Paul.

While the St. Paul Parking Commission has just begun to develop a parking plan, city planners have been working for some time on a transportation control plan that does contain parking elements. The control plan adopted by the city recommends discouraging long-term downtown parking, maintaining an adequate supply of short-term and executive parking, establishing additional park and ride facilities, selectively adjusting parking pricing, developing additional fringe parking, and implementing a people-mover system that would serve fringe parking.

Related Findings

Fringe parking is a complex issue.

Parking at the fringe or edge of the downtowns occurs naturally, as a marketplace response to demand for cheap parking, and as a public strategy to reduce congestion and air pollution within the area. An understanding of the fringe issue requires an understanding of both how people tend to make transportation choices, and what the environmental effects of parking policies actually are.

Vacant land at the edge of major activity centers with "fee parking" tends to be utilized on an interim or long-term basis for parking . . . generally at a relatively lower rate. People who use fringe parking normally are either those whose destinations are close to the fringe parking facility
and accordingly are provided excellent service, or those who are willing to accept some extra time and inconvenience to save on the parking charge.

**Market for fringe parking is limited.**

Our committee came to understand that people tend to make logical choices in picking the mode of transportation for their work trips, based on the relative time and money cost to them. Research done locally, throughout the country and in other countries, provides an understanding of people's behavior in making transportation decisions. For example, people value their walking and waiting time much more highly than they do their riding time. They place a much higher value on the time spent getting from their place of employment, into their car, and onto the roadway home, than they do the travel time on the road.

Studies show that on the average the form of travel makes only a modest difference in people's travel choices... independent of time and cost differences. The convenience and pride in driving one's own car appears to be an important but diminishing factor.

Transportation behavior studies show that out-of-pocket costs are weighed more heavily by the individual than are deferred expenses. They also show that the level of one's personal income is a major factor influencing the individual's willingness to trade additional time for reduced expense. High-income people working downtown are willing to pay a much higher expense for parking near their offices than are lower-income employees. Less obvious is the fact that an increase in parking costs will push some all-day parkers to the fringe.

As one might expect, the drawing power of "fringe" parking is dependent on its relative cost and convenience to the potential users. There is some evidence to suggest that the users of fringe parking are less likely to be drawn from drivers of single-occupant automobiles using ramps closer-in, than from those using some alternative, money-saving options such as car pooling, transit ridership, or even from parking still farther out.

Parking occupancy levels during prime time tend to remain relatively stable at ramps with preferred locations. What does shift with changes in demand is the price structure and the split between monthly, all-day, and short-term parkers. Accordingly, the utilization of fringe parking is directly related to the relative parking supply and the demand at locations more convenient to the user.

Close-in fringe parking, adjacent to major developments, is more attractive to most users than farther-out fringe parking which requires a longer walk or a transfer to a transit vehicle.

**Air quality impacts of parking are unclear.**

The environmental impacts of parking policies are numerous and somewhat in conflict. To the degree that parking policies help generate trip demand, they contribute to pollution and energy consumption. From this standpoint, decentralization and sprawl are environmentally harmful. On the other hand, it is in the downtowns and other centralized areas where there has been the greatest concern about violations of air pollution standards.

The committee did learn that air pollution monitoring is a relatively recent development that is still somewhat arbitrary, inconsistent and imprecise. For example, a Minnesota Pollution Control Agency staff member explained to the committee that the
MPCA can officially monitor pollution in only a limited number of places. He personally had recorded some of the highest air pollution readings on his own, unofficially, on congested freeways and within large parking lots ... areas not subject to current monitoring and enforcement standards.

The committee learned that carbon monoxide is the most serious air pollution in the Twin Cities area, and that carbon monoxide is a highly localized problem affected by many factors such as meteorology, topography and distance from the roadway. The movement of a monitoring probe as little as a few feet can change readings significantly. The higher reading at the probe may reflect a small isolated pocket where carbon monoxide is concentrated, or a more general condition. In addition, the monitoring measurement itself is not precise.

Despite the problems with air pollution monitoring, several important factors are known. First, carbon monoxide levels in downtown Minneapolis and downtown St. Paul have improved substantially over the past few years. This change results from some major improvements in some of the most influential variables in the generation of carbon monoxide: Auto emission efficiency has improved dramatically. In Minneapolis there has been a bypass of through traffic, the speed of traffic flow has improved, and there has been a reduced traffic volume. And in both cities there has been a reduced level of commercial and industrial carbon monoxide generation.

The reduction in carbon monoxide emission per vehicle mile for new vehicles from 1967 to 1977 is shown in the following graph prepared by the Motor Vehicles Manufacturers Association.12

Second, while a continued improvement of carbon monoxide levels is desirable, significant further improvements are not likely to be accomplished through parking restrictions. Adjustments in the emission standards for new cars and periodic inspection and maintenance of pollution control equipment are far more important.

It is unclear how serious current conditions actually are. Even if you assume that the worst readings accurately reflect general conditions in a larger area, the Environmental Protection Agency (EPA) standard of 30 parts per million carbon monoxide for one hour has rarely been exceeded in the Twin Cities, and the eight-hour standard of 9 parts per million carbon monoxide has normally been exceeded less than 1% of the time at the Twin Cities monitoring locations. By contrast, an individual can absorb 400 parts per million carbon monoxide by smoking a cigarette.

Third, on a national level, parking constraints as an air pollution control strategy have been downplayed and relaxed by Congress, the EPA, and individual cities. The effect of downtown parking on air pollution needs to be considered in light of the overall environmental and transportation needs of the region.
Specific Issues

Should Minneapolis build additional fringe parking?

The merit and feasibility of building fringe parking facilities is increasingly being called into question in Minneapolis. The primary concern appears to be the cost of these facilities to the city. Opponents have gathered figures projecting that in 1977 the City of Minneapolis will lose $661,147, not including reduced property tax revenue because of the tax exempt status of the ramps, on its operation of three municipal fringe parking ramps.13

Supporters of the fringe parking policy suggest that two of the city's three ramps classified as fringe facilities were built to accommodate special needs. They note that the Auditorium parking ramp was built as a necessary addition to support that public facility. Similarly, the Orchestra Hall parking ramp was built to provide the necessary service so that Orchestra Hall would be built downtown.

Specific issues before the community are whether a 1,100-car municipal ramp should be built on 5th Avenue South, and how much parking should be built by the city as part of the development of a 3rd Avenue North Distributor of freeway traffic from the west.

Should St. Paul continue low-cost, on-street parking and build public parking structures?

Two primary concerns have been raised about municipal parking in downtown St. Paul. The first relates to the extensive use of low-priced on-street parking at congested locations. This practice is advocated by the retail businesses served by the on-street parking.

However, the on-street parking creates some problems. Traffic flow is disrupted not only by the reduced number of lanes, but also by the parking and un-parking maneuvers. In addition, many traffic accidents do involve cars during the process of parking or un-parking on streets. Another side effect of the on-street parking policy is that there is less incentive for private off-street parking facilities to try to serve short-term parking needs.

The second primary concern is over the building of public off-street parking facilities. Municipal ramps have now been built at the Civic Center and the Science Center complex; the Port Authority facility is now under construction. In addition, the City of St. Paul is currently exploring a people-mover system that would, among other things, carry people from parking lots at the outer edge of the downtown into the downtown core. Some question has been raised as to whether the provision of municipal parking within the downtown is consistent with the people-mover program.

There is also some question as to whether the provision of expensive underground parking is consistent with the objectives of the Operation 85 study committee to move toward an abundant supply of free or relatively inexpensive short-term parking. Since underground parking tends to be particularly expensive to build and operate, relatively high rates will be needed . . . if these ramps are not to require substantial subsidy by the public and/or the business community.
Our Proposal

Improve service and reduce need for added parking by better utilization.

Our committee concluded that improved utilization of existing parking spaces in downtown Minneapolis and St. Paul should be pursued to maintain and increase their functioning as efficient, diversified centers. We feel that better access to downtown stores and services can be provided through improved coordination and marketing of parking facilities. This should include both assuring the availability of an adequate supply of convenient short-term parking, and providing the visitor with sufficient information for its easy use.

Give priority at best locations to multi-passenger vehicles.

We feel that limiting the capacity for parking within the central core of downtown St. Paul and downtown Minneapolis provides a special opportunity to pursue a parking system that gives preference to multi-occupant parkers over single-occupant, commuter parkers.

First, traffic capacity during rush hours absolutely limits the number of all-day parkers that can be given good service from parking at the prime inner-core locations.

Second, air pollution, aesthetic considerations, and conflicts between pedestrians and autos suggests it might be desirable to limit core parking beyond that which was dictated by congestion alone.

We feel that once multi-occupant vehicles are given priority over single-passenger commuters, the potential cost saving and convenience of parking close-in could make bus, car or van pooling especially attractive to downtown commuters . . . relative to driving alone. In addition, because of the concentration of employment downtown, drivers are likely to be able to form car pools within a relatively small residential area.

Make downtowns more convenient for shoppers.

Our committee concluded that the large supply of covered parking currently unused on evenings and weekends in downtown St. Paul and downtown Minneapolis should be used to help develop an "enriched version of a suburban shopping center" downtown during those periods. We would like to see this concept pursued in a coordinated way for an entire downtown center, or the two downtowns collectively.

Public policy should work with private parking marketplace.

Our committee feels that special attention must be paid in the downtowns to maximize user service and minimize public cost. As public financial involvement with parking in the two downtowns increases, we are concerned that the checks and balances of the marketplace continue to function.

We feel the public parking policy should be designed to work with the marketplace to the greatest degree possible in determining when, where and how parking is provided . . . while serving the public objectives through incentives, limited regulations and direct participation, as necessary. We feel that the marketplace does a good job of determining the most cost-effective means of providing parking in most cases. When the public is directly involved in providing parking, costs should be assessed as fairly as possible to the benefited parties.
Public development of fringe parking should be approached cautiously.

Our committee concluded that Minneapolis should continue to discourage additional parking for new developments within the core area, except for short-term parkers, multi-passenger use, and a limited supply of reserved company stalls. In a similar fashion, St. Paul should also consider the relative advantages of providing parking at the edge of, rather than within, the downtown core.

However, as additional commuter parking may be needed, it should be located at the close-in fringe, with good access to the core employment centers. We feel that if additional fringe ramps are built before a firm market demand for the fringe space has been established, the public is likely to be saddled with an unnecessary expense, and attempts to attract patronage may even encourage greater use of the single-commuter automobile trip.

We are confident that fringe ramps will not provide good service unless they are located very near existing or committed extensions to the highly developed core, and will work best if they are tied directly into the skyway system. Therefore, fringe ramps should be staged to occur at the same time as the connecting developments are built.

Special attention should be given to the likelihood of sufficient demand for parking at the proposed 5th Avenue South ramp in Minneapolis, and whether it meets the criteria discussed above. Also, the City of Minneapolis should be particularly sensitive to the staging of fringe parking tied into the proposed 3rd Avenue North Distributor, so that there will be good access from any parking area to the core development it will serve.

St. Paul should reduce on-street parking incentives.

We conclude that low-priced on-street parking does draw short-term parkers away from municipal and private off-street parking facilities, and accordingly contributes to traffic congestion and the additional costs and accidents normally associated with it. At the same time, since the low cost of on-street parking encourages its use, it correspondingly reduces availability and reduces the incentive for private off-street operators to hold back much space for short-term use.

We feel that the St. Paul Parking Commission should develop a proposal to better manage the city's on-street parking spaces downtown. At a minimum, on-street rates should be raised to a level equal to or above the prevailing short-term off-street rates.

After reviewing traffic congestion and accident patterns related to on-street parking, it may be found that substantial reductions in on-street parking are appropriate and necessary.

Other problems we would like to see the new St. Paul Parking Commission address are the effects of the city's providing free municipal parking at the Navy and Harriet Islands area, and whether substantial amounts of additional parking are really needed downtown.

Our committee has the feeling that the supply of parking is not now a major problem in downtown St. Paul, and the addition of substantial amounts of new parking is not a solution to any major problems. This is not to say that there are not specific locations where the lack of close, convenient parking is a problem for
either retail or other commercial establishments. However, parking should be
developed to meet the parking demand, not in the hope that a surplus of park-
ing will somehow attract users.

Specifically, We Recommend:

The business communities in downtown
Minneapolis and downtown St. Paul
should work together with their city
governments to utilize parking more
fully in the broad community interest.

To the degree possible, parking man-
agement should be undertaken on a co-
operative basis with joint participa-
tion in the planning by the general
business community, private parking
operators and the city. In St. Paul
the Parking Commission has already
set up such participation. In Minne-
apolis, some new organization may be
needed.

Cities should make short-term parking more
visible and convenient.

Steps should be taken to develop a
more visible and convenient system of
off-street parking for short-term and
infrequent users. To do this, the
following steps should be taken:

(1) An ongoing assessment of short-
term needs by time and location should
be made by monitoring use patterns at
parking facilities, as well as traffic
data collected by the cities, and
other useful information readily
available.

(2) An adequate number of parking
stalls, based on the parking demand
data generated, should be set aside
for short-term use. These stalls
should carry a rate structure that
strongly discourages their use by
all-day parkers.

(3) The short-term parking rate
structure should apply to an entire
lot or ramp, where that amount of
short-term parking is justified by
demand . . . or the most convenient
section, say the first floor of a
ramp, should be set aside for per-
sons paying the short-term rate.

(4) The system should be designed
to allow maximum flexibility in
adjusting the amount of parking set
aside for short-term use. For exam-
ple, the amount of short-term parking
set aside at some locations may have
to vary not only by seasons and
special events, but also by differ-
ent days of the week and even time
of the day.

(5) If the total supply of conve-
niently located parking falls short
of the short-term demands on a regu-
lar basis, ways of adding more park-
ing and/or improved transit service
should be explored.

(6) All short-term parking facili-
ties should be clearly identified
by some uniform marking system. In
addition, a system of visuals should
be developed to direct the occa-
sional visitor to the short-term
parking locations. Written materi-
als containing maps of downtown
parking locations should be devel-
oped, broadly disseminated, and
incorporated routinely in advertis-
ing for downtown stores.

Provide special treatment for car pools.

Steps should be taken to provide car
pools and van pools with preferen-
tial access to parking spaces best
serving their occupants. In some
cases, the best short-term parking
locations will also be the best
locations for multi-passenger commu-
ter vehicles. Where the supply is
adequate for both, certified car and
van pools should be able to park at the short-term locations, at long-term rates.

In parking facilities primarily serving all-day parkers, a supply of preferential space should be set aside for pooled vehicles paying on a monthly basis. Monthly parking arrangements for car pools should be structured to allow a substitution of vehicles among the participating members.

Steps should be taken to identify and reserve an adequate supply of parking for handicapped persons throughout the downtown parking system at those on-street or off-street locations best serving their needs.

**Parking should help create convenient shopping environment.**

A system should be developed to provide parking at little or no charge to shoppers evenings and weekends as part of a major, coordinated effort to create an "enriched shopping environment" in each of the two downtowns.

The development of the new evening and weekend environment should be planned and timed to correspond with the completion of the new City Center development in Minneapolis and the 7th Place development in St. Paul.

The arrangement for providing free or nominally expensive parking for evening and weekend customers should be handled collectively by the benefited businesses voluntarily, or through some system of public assessment to the benefited operators. If the latter is found to be more appropriate, such a proposal should be initiated by the downtown businesses themselves.

Arrangements should be made to ensure that the skyway systems are open to provide pedestrian access between parking facilities and retail stores in concurrence with the new evening and weekend hours. If the owners of the individual portions of the Minneapolis skyway system are unwilling to keep open the new evening and weekend hours, the city should explore the possibility of publicly owning the skyway system and then assessing the cost to the benefited property owners.

**Public ownership should be a last resort.**

If the preceding recommendations cannot be achieved on a voluntary basis, the following steps may need to be explored. However, our committee feels that as a general rule the public role should be minimized.

(1) The cities might develop fiscal incentives for private operators, with any cost assessed to the benefited downtown properties.

(2) They could pursue additional municipal regulations of licensed parking operators.

(3) Or, as a last resort, the cities might get more involved in the ownership of parking facilities directly, or through some form of non-profit, quasi-public agency.
The State of Minnesota Has a Special Obligation and Opportunity To Manage Parking in the Public Interest at the University of Minnesota’s Twin Cities campuses, and at the State Capitol Complex

The Present Situation

A shortage now exists.

There currently is a shortage of parking with convenient access to both the University at the Minneapolis campus and the State Capitol complex. This shortage is particularly acute for the short-term and infrequent user. Much of the parking that is available at both locations is set aside for all-day, contract users.

University has the region’s largest parking system under one management.

The University of Minnesota at its Twin Cities campuses has a large, publicly operated parking system that charges rather uniformly low rates throughout the Twin Cities campuses. The University currently provides 12,022 parking spaces at 97 surface lots, 4 heated underground garages, 3 ramps, and 22 metered areas. Almost half of the parking provided by the University is in contract spaces, generally at the most convenient locations and reserved for some of the University staff working three-quarters time or more. There is generally a three-year wait from the time a person applies for a contract parking permit until one becomes available.

The University’s parking utilization rate is high at open, public lots. During the 1976-77 school year, there were approximately 1.5 cars using each of the spaces available to the public, while there were approximately 1.1 cars for each space in the contract lots.

The University does regularly issue more parking contracts per lot than there are actual spaces. However, they are very careful to keep the number of contracts issued down to the point where the contract lots are almost never full, so that a contract holder rarely has to be turned away.

The University provides very little variation in its parking rate structure. Generally, the rates are similar regardless of the location. They do charge transients 40¢ per hour at some ramps and some lots. However, the most common transient arrangement is 55¢ per day in lots and 80¢ per day in ramps.

They do have one metered lot for visitors where the charge is 75¢ per hour. However, we were told that even at this high rate the lot does fill up, not only with visitors but with students as well.

The University does reserve two lots before noon on its Minneapolis campus for car pools. The west bank facility holds 240 cars, and an east bank facility holds 170 cars. In order to get into the lots before noon, a driver must have three or more people in the car. It was noted to our committee that these two lots generally do not fill up by noon . . . even though all the nearby transient lots are normally filled up by the end of the first period.

An exclusive busway has been proposed to service remote University parking.

A feasibility study is currently under
way regarding the building of an exclusive busway system that would tie the east bank, the west bank, and the St. Paul campuses together, along with a number of remote intercept lots. This idea calls for the creation of a new road, primarily along railroad right-of-way land, that had been previously considered as part of a proposed fixed guideway system. The busway would connect the three campuses to each other and to three new parking lots, and 2,500 spaces available at the State Fairgrounds.

Through this system, the University hopes to intercept students at the parking facilities before they reach the campus. Frequent and speedy bus service would then take the students from the remote intercept lots to central on-campus locations.

The purpose of the remote intercept system is threefold: First, to relieve parking shortages that exist now or will be created when existing on-campus lots are eliminated; second, to reduce the spill-over of parkers into neighborhoods surrounding the University by providing students another parking option; third, to better tie the east bank, west bank and St. Paul campuses together by reducing bus time, while at the same time reducing bus operating expenses.

The proposed busway has been given a tentative price projection of $8 million, and would add an additional 2,220 parking spaces at the three new lots.

State Capitol parking provides shared-ride incentive.

The State of Minnesota has developed parking policies that encourage employees at the Capitol complex to conserve parking and participate in transit and para-transit programs.

The State of Minnesota has 28 lots at the Capitol complex which they rent to state employees for $10 per month. They also have two ramps that are leased to employees at a rate that runs from $11.50 on the roof to $17.50 in totally sheltered areas. In addition, the state has three heated garages that lease for $35 per month. Some spaces are leased to non-state employees, who are then charged a rate 50% higher than the figures stated for employees.

In 1976, the State of Minnesota began giving a $1.50 discount in parking charges for each car pool rider for a total of up to five. This means that the total discount may run as high as $7.50 per month. In addition, in 1977 the Legislature imposed a 25% surcharge for parking on all state employees at the Capitol complex who drive alone. The legislation specifies that the money from this surcharge will be used to benefit employees. Possible uses cited include: Partial payment for bus fares, funding of van pool or car pool expenses, and other transportation-related assistance.

The Problem

There are approximately 6,000 employees at the State Capitol complex. Of these, we were told, 4,000 drive their cars to work. The State of Minnesota has 2,070 parking stalls at the complex. Of these, 1,800 are contract stalls, and 270 have parking meters. Approximately 400 state employees have leased parking stalls from the Sears shopping center across from the Transportation Building. It appears that an additional 2,000 state employees park cars on the streets in the neighborhoods surrounding the State Capitol. The situation is compounded by other employers in the Capitol area that do not have adequate parking for their employees.
While the University of Minnesota does not keep accurate figures on transportation behavior of its students and faculty, it is apparent that substantial numbers also park in the neighborhoods surrounding the University. Parking in the neighborhoods has been a bone of contention between the University and its neighbors at both the Minneapolis and St. Paul campuses.

Minneapolis has developed a permit system that restricts parking on given streets during the day to local residents who have acquired parking permits. Residents of the St. Anthony Park community around the St. Paul campus have suggested a similar program to the City of St. Paul for their neighborhood. However, such systems appear to be difficult and expensive to enforce.

**It is unclear whether University's remote parking would be well used.**

There are some serious questions as to whether the University's remote intercept parking system, connected with an express busway, would be needed if other less costly steps were taken, or would actually be used well. Some evidence exists which suggests that people will normally try to avoid the type of transfer anticipated. For example, the City of Singapore enacted very severe constraints to keep cars out of the downtown during the day. To accommodate the cars diverted, they provided 10,000 spaces at fringe car parks around the periphery of the restricted areas, with special shuttle buses introduced to carry the commuters from the fringe car parks to the central area. The price of the parking and bus service was designed to be relatively attractive vis-a-vis other choices.

Of 42,000 Singapore motorists who formerly drove into the central area, very few used the 10,000 fringe parking spaces provided. Most of the fringe space has now been redeployed and buses diverted into the surrounding neighborhood. The Singapore drivers apparently preferred to shift to transit or a car pool rather than to drive, park, and shift to a bus at the periphery.

The University's own experience would also suggest difficulty with this concept. The University has one 700-car remote lot located at 29th and Como Avenue in St. Paul. This lot is halfway between the Minneapolis and St. Paul campuses. The University does not charge for parking at this remote lot, but it does cost the user 20¢ each way on the inter-campus bus. Since the bus does come each way at five-minute intervals, the lot provides relatively good service to both campuses.

The parking director at the University indicated to our committee that the Como lot does fill, but only after all the Minneapolis campus lots are full. He suggested that the users do not like remote lots because of the inconvenience of transferring from car to a bus.

A somewhat similar situation is found on the St. Paul campus where the University has experienced considerable difficulty in getting students who park at the State Fairgrounds to use a shuttle bus serving the St. Paul campus.

**Our Proposal**

**State should set example.**

Our committee concluded that the Twin Cities campuses of the University of Minnesota and the State Capitol complex should be used as models to demonstrate the use of parking as a tool to encourage transit and para-
transit ridership. The common ownership and management of all parking within a large center by the State of Minnesota at the University and the Capitol complex facilitates the use of a parking management strategy.

We feel the parking policies at the University and the State Capitol should strongly encourage shared rides, and give visitors and other short-term parkers priority over all-day, single-occupant parkers. This is not to say that visitors, as well as regular users, should not be encouraged to utilize the good bus service provided to the University from the two downtowns.

We feel that parking rates at the state facilities should reflect the full replacement cost of the facilities, and the relative demand for given parking stalls. Parking revenues should be made available for the encouragement, or underwriting, of student and faculty use of transit and para-transit, as well as the provision of parking at the University...just as such a program is now planned for the State Capitol complex.

Our committee feels that the current arrangement of reserving almost half of the University's 12,000 parking spaces, generally at the best locations, in contract facilities for full-time employees runs counter to the public interest in promoting shared rides and providing preferential help for short-term or infrequent parkers who need it most. Similarly, and perhaps of greater urgency, there is a need to reallocate parking at the State Capitol complex to give priority to the short-term user...especially during legislative sessions.

We feel that the State Capitol complex is an excellent place to pursue a preferential parking system for the following reasons: (1) Additional parking would be expensive; (2) Transit service is available and will be improved if the St. Paul people-mover is built; (3) As both an employer and as a provider of transportation facilities, the State of Minnesota can assess the direct and indirect costs of transportation alternatives; (4) The state's example is important in getting other groups to promote transit and para-transit ridership.

Specifically, We Recommend:

The University of Minnesota at its Twin Cities campuses, and the State of Minnesota at the State Capitol complex, should launch model parking management programs.

University should actively manage parking.

We recommend that the University reallocate its parking spaces and utilize a selective rate structure to help shape use patterns. The following elements should be included in this process:

(1) Preferential spaces for the handicapped should be continued.

(2) An adequate supply of parking for short-term users should be provided by making next-best locations available to the general public and assigning a relatively high hourly charge that increases, rather than decreases, over time. In addition, efforts should be made to appraise short-term users as to the availability of public transit service to the University.

(3) After the short-term parkers' needs have been satisfied, the next priority should be given to employees and students who regularly participate in a car pool. An adequate supply of conveniently located parking should always be made available for this group.

(4) Contract lots and those that carry
all-day rates should be located at the outer edge of the campus, or at other areas of relatively low demand. Participation in car pools should be given priority over other factors in assigning contract space to employees.

(5) Parking spaces throughout the campus should reflect the full replacement cost of the facility, as well as the relative demand for parking at the location. The most central and convenient spaces require substantial rate increases.

(6) A portion of the University's parking revenues should be set aside to help cover the cost of regulating spill-over parking into the surrounding neighborhoods.

(7) Contract spaces should be over-subscribed to a greater degree, to increase their utilization.

(8) The University should see whether the above-listed steps will accomplish a reduction in demand for parking space and greater use of shared ride alternatives. By reducing the amount of parking spaces necessary to accommodate cars now parking in neighborhoods and parking lost to development, it should be easier to add the parking needed at locations more convenient to the user.

State Capitol should retain transit incentives.

We recommend that the State of Minnesota continue its parking price incentive system for car and van pooling, and expand the portion of space allocated for short-term use by the general public, particularly during the legislative sessions.

We feel that both the car pool discount, and the ride-alone surcharge, should be retained.

We feel that short-term parking availability to the general public should be given highest priority. Special efforts should be made at session time to get state employees working regular hours to either ride in pools, or use public transportation, or park at remote locations serviced by a shuttle bus.
Parking Shortages Pose a Difficult Problem that Must Be Approached with a Sensitivity to Local Conditions

The Present Situation

While parking is generally in ample supply in this region, there are a few areas where parking is often in short supply. As mentioned in the last section, parking is in short supply at the University of Minnesota and the State Capitol complex. It is also in short supply in many older, multi-family residential areas and business locations in the two central cities, as well as the first ring of older suburbs. Other areas where we have learned parking is in short supply include churches and other facilities generating high, short-term peak demands, as well as schools, hospitals, and public recreation areas.

An artificial parking shortage is created when parkers move into an area with free on-street parking to avoid parking charges at their destinations.

The Problem

Our committee found the problem of parking shortages to be one of the most difficult and complex of any we have encountered. Everyone understands the importance to an area of being able to provide parking. The difficulty is that providing additional parking in built-up areas can pose equally difficult, if not greater, problems for the community than the parking shortage.

Our Proposal

We concluded that specific procedures and tools for helping older residential neighborhoods and commercial areas to resolve parking problems should be developed by those municipalities with this problem. The procedures should include ways by which the residents, local businesses, and non-resident property owners in a given neighborhood can be officially brought together to work out a parking plan.

We would like to see technical planning assistance made available to community groups over developing off-street parking plans, and for the better management of on-street parking spaces. This assistance should include making available written materials describing how staff help is secured, and general listings of options available.

Local communities should make available alternative approaches by which off-street parking can be developed, and financed. They also should develop specific mechanisms by which on-street parking in a neighborhood can be limited as to the time of day and week, duration and uses.

In older areas where the total supply of parking is inadequate, we feel the primary emphasis should be given to finding ways to add parking space in a manner that is consistent with maintaining the quality of the community environment. In areas where charges for parking encourage a spill-over of parking into the surrounding neighborhood, primary emphasis should be given to developing and enforcing appropriate on-street parking regulations.

Our committee also concluded that it may be appropriate and necessary for the public to assume a direct role in the provision of shared off-street parking among independent properties. Although the committee does not generally favor government involvement in
the off-street parking business, we feel that this situation may be special.

Market response to parking shortages in older areas can be lower property values, stagnation and decay, and/or the random development of small, inefficient parking areas exclusively serving the needs of a specific building or building tenant. In this case, public participation and assistance may be necessary in both the development and implementation of a community's solution to its parking problems.

The public sector has the advantage of being able to (1) condemn land and place parking facilities where they are needed, (2) reduce financing costs through tax-exempt bonding, (3) avoid property taxes on the facility, (4) coordinate parking with other community interests, and (5) assess the costs equitably among the benefited parties.

In determining what active role a local government might take, our committee considered a number of possibilities. These include: Zoning, technical assistance, land acquisition, use of public funds to "write down" or reduce land costs to the developer, public subsidy through "tax increment" generated funds, tax exempt bonding through a public agency, assessment district financing, general public obligation backing the bonds, direct public ownership, public management, and various combinations or derivations of these.

**Careful evaluation should precede public action.**

Despite the need in parking-short areas, our committee concluded that public participation in off-street parking should be pursued only after careful exploration and evaluation of this activity. We feel the provision of parking publicly is subject to a number of special problems.

First, subsidized parking makes driving alone relatively more attractive vis-a-vis the shared ride arrangement.

Second, publicly subsidized parking discourages the development of parking as a private investment, and accordingly could prevent the supply from expanding as a normal market reaction to demand.

Third, it may be difficult for a public body to develop a parking facility as quickly, or as economically, or in as quick a response to market conditions as can a private party.

**Activity center has responsibility for spill-over parking.**

Our committee feels that any party responsible for attracting significant numbers of parking should be made responsible for providing adequate parking to meet the demand generated; for lowering the demand through a transit or para-transit promotion program to a level that can be accommodated; or, if necessary, for helping finance an on-street parking regulation enforcement program.

We feel that off-street parking regulations and enforcement should be tailored to meet the specific requirements of the given localized situation to the degree possible. Regulations should not be any more restrictive than necessary to meet the actual problems as they relate to the time of the day and week, the duration of the parker's use of a space, and the parker's reason for being in the area.

We feel that the owner or renter occupants of a given property should be allowed preferred access, as needed, to the on-street parking spaces adjacent to their land. However, we recognize this policy is difficult to enforce. We do feel it is appropriate for neighborhoods to work out arrangements whereby volunteers might be trained and deputized to help enforce parking regulations protecting a neighborhood.
Current arrangements for parking in the region have evolved over a number of years. Free public curb parking met much of the early parking demand. Off-street parking first developed privately from the overflow from the streets. The practice of charging for parking developed first with private lots and public on-street meters, and then later with private ramps and underground garages providing valet services for the driver.

With the explosion of automobile production and use following the end of World War II, acute parking shortages began to develop in the late 1940s. In reaction, perhaps over-reaction, to these shortages, municipalities began requiring owners of developments to provide a substantial amount of parking. As one suburban official explained, "We had watched businesses move from Minneapolis to our community because of a parking shortage. We were determined not to let this happen to us."

Parking policies do not necessarily reflect current conditions.

Our committee found that excessive parking requirements were frequently instituted before good information was developed as to how much parking was required to fully meet demand in given situations. High requirements have in part been retained in some communities for unrelated reasons, such as insuring the availability of expansion space, negotiating specific concessions from a developer, or simply because no compelling reason for change has been presented.

As suburbs have become more fully developed, some have tended to adjust their parking policies to encourage more efficient use of the undeveloped land left. Recent revisions in municipal codes show a trend towards requiring fewer parking spaces.

Parking policies are given little regional attention.

Transportation and regional development planning to date has given little attention to parking policies. The Metropolitan Council's transportation development guide policy plan briefly refers to parking in only a few instances. It does recommend providing car pools and van pools preferential parking in terms of location and cost. It also supports utilizing common parking areas to serve diversified clusters of development.

Finally, the policy plan would "emphasize pedestrian movement in the metro centers by: (1) concentrating parking facilities on the fringe of core areas; (b) linking the parking facilities to the core areas with skyways and a downtown circulation system."

The most active use of parking as a transportation strategy is the Metropolitan Transit Commission's (MTC) "park and ride" transit promotion program. The MTC utilizes parking lots throughout the region as collection points for commuters who wish to ride the bus. These collection points are located near the residences of the users, so the amount of auto transportation is minimized, and the miles traveled on the bus maximized.

As of November 1977 there were 80 park and ride lots in operation providing bus service to an average of 1,150 riders per day.

The MTC sponsored a working paper by a consultant on parking policies and multi-occupant vehicles. This paper laid out a number of things that could be done with parking to encourage transit and para-transit ridership. However, no policy statements have been endorsed from the study.
ABOUT THIS REPORT

Committee Assignment

The Citizens League has had a deep and continuing interest in transportation, land use and physical developments throughout the past 25 years of operation.

In its 1968 report, "Highways, Transit and the Metropolitan Council", the League recommended that parking be included as part of metropolitan transportation planning, and that large parking facilities be subject to review and approval by a metropolitan transportation agency.

In its 1971 report, "Transit: The Key Thing To Build Is Usage!", the League noted that parking was a generally overlooked aspect of transportation planning, and suggested a peak-hour parking charge be considered as one of several ways of discouraging peak-hour traffic.

In its 1973 report, "Building Incentives for Drivers To Ride", the League stressed the importance of encouraging greater ride-sharing through a number of incentives ... including giving multi-passenger vehicles preferential access to parking facilities. The report reiterated the proposal that parking facilities be made subject to metropolitan review and approval.

A 1974 Citizens League report entitled "Transit: Redirect Priorities Toward a Small-Vehicle System and Shorter Trips" emphasized the importance of not just serving transportation demand patterns, but also reducing transportation demand by encouraging diversified developments that co-locate employment, entertainment, shopping and housing opportunities.

Building out of the background and insights gained from these and other past Citizens League reports, the Board of Directors of the Citizens League programmed this study to specifically explore parking policy questions. The charge to the committee by the Board of Directors reads:

"Until quite recently, the importance of parking to travel behavior and urban development was either largely ignored or 'assumed'. Transportation planners tended to ignore the cost and availability of parking in trying to influence choices persons make between driving alone and riding with someone else. Land use planners tended to 'assume' (and even require) that parking would be part of a proposed development. The full cost of parking was either included in the construction cost of a development or passed on to auto drivers.

"Important questions of public policy have emerged:

**What potential do public policies on the cost and availability of parking have for influencing decisions about riding and driving alone? What is current regional policy on the role of parking as a ridership-development incentive? Should public policy require that the full cost of parking be borne by the user? -- that lower price or preferentially located parking be available to all multi-passenger vehicles?

**How important is the availability of parking to the success of efforts to redevelop parts of downtown Minneapolis and St. Paul? Should it be used
as an incentive to attract redevelopment? Will fringe parking programs really have any impact on reducing downtown air pollution? Will they encourage people to drive downtown who otherwise might ride with someone else? When should publicly subsidized parking be built: in advance of development? or in response to it?

**Should better off-street parking be available in residential areas?**

"The study would attempt to analyze current regional and municipal policy on parking, both as an incentive to riding and as an incentive to redevelopment. Metropolitan and city parking plans would be reviewed. The economic viability of existing municipal ramps would be investigated. The question of who should bear the cost of subsidies would be addressed."

**Committee Membership**

The committee had the active participation of 23 members, and was chaired by Medora Perlman, a St. Paul attorney. Staff assistance was furnished by Calvin Clark, Citizens League membership director, and Jean Bosch, Citizens League clerical staffer.

In addition to Chairman Perlman, the following members served on the committee:

W. Andrew Boss  
Ken Brimmer  
Ele Colborn  
Richard Erdall  
Michael O. Freeman  
Paul Gleeson  
David B. Hall  
Todd Heglund  
David Heit  
Jack Hoeschler  
Sally Hofmeister  
Curt Johnson  
Dennis Klops  
Joseph Michels  
Gordon Me  
Robert D. Owens  
Conrad Razidlo  
Michael Rivard  
Gloria Segal  
Clement Springer  
Stacy Strand  
Lyman Wakefield

In addition, the committee was fortunate to have in regular attendance Mr. Edward Baker, Minneapolis architect and parking ramp owner, and Jerry Mangle, St. Paul Parking Administrator. Mr. Baker and Mr. Mangle provided the committee with an ongoing source of information and personal insights.

**Committee Procedures**

The committee met 32 times in 24-hour evening meetings running from April 5, 1977, to November 22, 1977. The location of the meetings generally rotated from St. Paul to Minneapolis, with special meetings held at Southdale, the 3M Center in Maplewood, and Appletree Square in Bloomington.

The committee reviewed a substantial amount of written background material from local, national and international sources, in addition to direct discussions with the following 37 resource persons:

Larry Dallam, Metropolitan Council  
Clement Spring, Metropolitan Transportation Advisory Board  
Hugh Faville, Metropolitan Transit Commission  
Clarence Shallbetter, Public Service Options  
Richard Braun, Minnesota Department of Transportation  
George Hite, Dayton Hudson Properties  
Robert Worthington, Rauenhorst Corp.  
Loren Geller, Victory Auto Park  
Lyman Wakefield, former president, Downtown Auto Parks  
David Koski, Minneapolis City Traffic Division  
Thomas L. Johnson, Minneapolis City Councilman  
Richard Schnarr, St. Paul Planning Department  
David Hozza, St. Paul City Councilman  
Walter Johnson, University of Minnesota Parking Director
Board Action

Prior to the time the report was officially presented to the Board, an ad hoc committee of the Board, headed by Dale Beihoffer, was appointed to meet with the committee. Appointment of such ad hoc groups is routine in all League studies. The ad hoc Board committee met four times from August to January. Its questions were relayed back to the Parking Committee.

The committee report was preliminarily presented to the full Board of Directors of the Citizens League in November, 1977, and was discussed and debated at meetings in December and January. The discussion considered at some length the report's conclusions and recommendations especially with respect to the taxation of parking, to the parking strategy of the University, and to the parking programs of the central cities for their two central business districts.

In acting on the report, the Board—in order to make clear that these were simply possibilities, rather than recommendations—moved to an appendix the discussion (now to be found on pages 37-38) with respect to possible changes in the valuation and taxation of parking ramps and lots.

And, recognizing that the scope of the committee's study was confined to parking, the Board acted to make it clear that the Citizens League is not able to make, and is not making, a recommendation with respect to the proposed University of Minnesota busway. The Board is aware that there is another whole set of considerations, having to do with the organization and program of the University, that are inextricably involved in the busway proposal and in any decision about it. These could not be explored, in the time available either to the committee or to the Board.

Greg Kittelson, Assistant Director of Planning, University of Minnesota
Gary Eckhardt, Minnesota Pollution Control Agency
John Hoffmeister, Metropolitan Council Herbert Mohring, University of Minnesota Economics Professor
Arthur Jones, Minneapolis Star and Tribune
Richard Draher, Dayton Hudson Corp.
Thomas A. Thompson, then Minneapolis City Coordinator
O. D. Gay, Downtown Council of Minneapolis
Robert Van Hoef, Operation '85 Director
Allen Block, St. Paul Housing and Redevelopment Authority
Kent Shamblin, St. Paul Companies
James Zdon, St. Paul Planning Department
Robert Webster, Bloomington Director of Community Development
Richard Wolsfeld, Bather, Ringrose, Wolsfeld, Inc.
Warren Beck, Gabbert & Beck, Inc.
Jim Dale, Manager, Southdale Center
Howard Dahlgren, Howard Dahlgren Associates
Gary Gustafson, H. & Val J. Rochschild, Inc.
Paul Klodt, Frantz Klodt & Son, Inc.
Robert Owens, 3M Company
Edward and Sara Baker, Downtown Van Pools, Inc.
Jerry Mangle, St. Paul Parking Administrator
Elmer L. Erkkila, Assistant Director, Plant Management Division, Minnesota Department of Administration

Following this extensive input from background materials and resource persons, the committee developed multiple drafts of findings, conclusions and then specific recommendations. These were then incorporated into the full report, which was also redrafted several times as the committee refined its work further.
FOOTNOTES

1See Appendix A for a breakdown of parking spaces in the region. A discussion of places at which there is a charge for parking is found on page 3.

2See Appendix B for tables showing peak parking use at retail centers in the area and Appendix C for samples of municipal parking ordinance requirements.


4This study had not been completed at the time of the writing of this report. The information was furnished directly to the committee by Barton-Aschman Associates, Inc.

5The figures were calculated, developed or used in Appendix A.

6See Appendix A for parking cost analysis. The expense for gasoline is based on a U. S. Federal Highway Administration estimate of 704 gallons of fuel consumed per passenger vehicle in 1974 and a current average gasoline price of about 67.5¢ per gallon.

7See Appendix A for an estimate of parking in the region. The retail sales estimate is based on figures listed in the U. S. Census Bureau Publication, U. S. Census of Business, Major Retail Centers, 1972, showing the Minneapolis Central Business District (CBD) with retail sales of $284,830,000 (6.3%), the St. Paul CBD with $104,722,000 (2.3%), and the entire Standard Metropolitan Statistical Area with $4,488,167,000 (100%).

8Developers and retail shopping center operators told our committee that their maintenance costs on surface parking run about $25-$30 per stall each year. Taxes and interest on capital normally would run less than $100 per year, where the land cost is less than $1.50 per square foot . . . although this would not necessarily be true in a community with relatively high property taxes.


10Information furnished the committee by Minneapolis City Traffic Division.


13This projection was made by James R. Casserly, acting as a consultant to Minneapolis private parking lot and ramp owners in a memorandum to his clients dated October 28, 1977.
APPENDIX A - PARKING SPACES PROVIDED AND THEIR COST

A. Estimated number of parking spaces in the Twin Cities metropolitan area

It appears there are at least 3½ parking spaces for every licensed passenger vehicle in the 7-county metropolitan area. In many cases the base data used to obtain this figure was not current or directly applicable. Numerous assumptions based on the judgments of knowledgeable sources had to be applied to translate the base data into current parking estimates. An attempt was made to keep the assumptions used relatively conservative to avoid overstat- ing the amount of parking. A breakdown of the estimated parking in the metropolitan area is as follows:

Residential

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 space for each licensed passenger vehicle</td>
<td>1,250,000</td>
<td>2,750,000</td>
</tr>
<tr>
<td>2 guest spaces/dwelling unit</td>
<td>1,500,000</td>
<td></td>
</tr>
</tbody>
</table>

Commercial and Industrial

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 space/employee</td>
<td>950,000</td>
<td>1,250,000</td>
</tr>
<tr>
<td>1 space/licensed commercial and industrial vehicle</td>
<td>300,000</td>
<td></td>
</tr>
</tbody>
</table>

Retail

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5 spaces/1,000 square feet of retail floor space</td>
<td>200,000</td>
<td></td>
</tr>
</tbody>
</table>

Miscellaneous

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of licensed physicians, optometrists, dentists and chiropractors x 4⁴</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Number of hotel and motel rooms x 3/4</td>
<td>15,000</td>
<td></td>
</tr>
<tr>
<td>Number of bowling lanes x 5</td>
<td>7,500</td>
<td></td>
</tr>
<tr>
<td>Church membership x 1/35</td>
<td>50,000</td>
<td></td>
</tr>
<tr>
<td>Theatre capacity x 1/4⁵</td>
<td>23,000</td>
<td></td>
</tr>
<tr>
<td>Number of hospital beds x 3/4</td>
<td>11,000</td>
<td></td>
</tr>
<tr>
<td>Restaurant capacity x 1/4⁶</td>
<td>73,500</td>
<td></td>
</tr>
<tr>
<td>Number of nursing and rest home beds x 1/6</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td>Metropolitan Stadium</td>
<td>14,000</td>
<td></td>
</tr>
<tr>
<td>Airport</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>12,000</td>
<td></td>
</tr>
<tr>
<td>All other⁷</td>
<td>17,000</td>
<td></td>
</tr>
</tbody>
</table>

Total |

| Total estimated spaces divided by number of licensed residential vehicles: 3.56 |

(continued next page)
APPENDIX A (continued)

B. Estimated cost

The cost of providing parking varies widely. The land used may or may not be of particular value on a given plot, independent of its utility as a place to store vehicles. The cost of improvements will vary from nothing where a family may park extra vehicles in the driveway or in the yard, to over $10,000 per stall for heated parking structures.

We have used a conservative figure of $100 per space for parking for our estimate of annual parking costs of $450 million for the region. Non-residential, off-street parking costs clearly run at least that, since maintenance costs will generally be at least $25, and the capital costs and taxes on even the most inexpensive paved spaces are likely to run close to $75 per year.

Some residential parking clearly costs less per space, but, of course, residential garage parking is much more expensive . . . bringing the average cost up to at least a comparable full, true cost level. On-street parking is clearly the most expensive to build and maintain. However, it is unclear how much expense should be assigned to its use for vehicle storage, rather than vehicle movement.

With an estimated 1½ million passenger vehicles, it appears that the average cost of providing parking is at least $350.

---

1It was estimated that 50% of the 211,000 licensed pick-up trucks are used as family, passenger vehicles.

2Employment figures were available only for the 9-county metropolitan area. The Minnesota Department of Employment Services estimated that the additional two counties composed 1.5% of the total commercial and industrial employees. This factor was then taken into account.

3The most current retail floor space figure by the Bureau of Census was for 1972 for the 10-county area. New retail construction and additions for 1973-76 were then acquired from building permits and added to the Bureau of Census figure. An adjustment was made for the outlying three counties included in the census figures.

4Approximate figure, based on information from numerous sources.

5Total theatre capacity was not obtainable. A random sample of the 117 theatres in the 10-county area showed an average capacity of 900.

6Approximate figures, based on discussions with people in the industry.

7"All others" includes parking spaces at such places as schools, parks, barber shops, beauty salons, and many other categories where good information for estimating parking was not established.
APPENDIX B - PARKING USE AT RETAIL CENTERS

The following tables were furnished the Citizens League Parking Committee by Barton-Aschman Associates, Inc. They are based on aerial photographs taken during peak periods of the shopping day the Friday following Thanksgiving and the Saturday before Christmas (normally the two busiest shopping days of the year).

### SUMMARY OF PEAK PARKING DEMAND AT REGIONAL CENTERS IN THE TWIN CITIES METROPOLITAN AREA*

<table>
<thead>
<tr>
<th>Center</th>
<th>11-23-73 12-15-73</th>
<th>11-29-74 12-21-74</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friday Saturday</td>
<td>Friday Saturday</td>
</tr>
<tr>
<td>A</td>
<td>4.80 4.63</td>
<td>4.75 4.72</td>
</tr>
<tr>
<td>B</td>
<td>5.29 5.04</td>
<td>5.20 4.78</td>
</tr>
<tr>
<td>C</td>
<td>- -</td>
<td>3.64 3.83</td>
</tr>
<tr>
<td>D</td>
<td>3.47 3.04</td>
<td>2.85 3.66</td>
</tr>
<tr>
<td>E</td>
<td>5.45 5.59</td>
<td>5.02 5.74</td>
</tr>
</tbody>
</table>

*Centers are over 500,000 sq. ft. of gross leasable area.

### SUMMARY OF PEAK PARKING DEMAND AT COMMUNITY CENTERS IN THE TWIN CITIES METROPOLITAN AREA*

<table>
<thead>
<tr>
<th>Center</th>
<th>11-23-73 12-15-73</th>
<th>11-29-74 12-21-74</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friday Saturday</td>
<td>Friday Saturday</td>
</tr>
<tr>
<td>A</td>
<td>3.09 4.24</td>
<td>2.90 2.56</td>
</tr>
<tr>
<td>B</td>
<td>3.42 2.48</td>
<td>- 2.39</td>
</tr>
<tr>
<td>C</td>
<td>2.96 2.92</td>
<td>2.90 2.15</td>
</tr>
<tr>
<td>D</td>
<td>2.84 3.29</td>
<td>2.18 2.40</td>
</tr>
<tr>
<td>E</td>
<td>3.64 2.72</td>
<td>- -</td>
</tr>
<tr>
<td>F</td>
<td>- -</td>
<td>2.55 2.64</td>
</tr>
</tbody>
</table>

*Centers ranging between 300,000 sq. ft. and 500,000 sq. ft. of gross leasable area.

(continued next page)
SUMMARY OF PEAK PARKING DEMAND AT DISCOUNT STORES
IN THE TWIN CITIES METROPOLITAN AREA*

<table>
<thead>
<tr>
<th>Center</th>
<th>11-23-73</th>
<th>12-15-74</th>
<th>11-29-74</th>
<th>12-21-74</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friday</td>
<td>Saturday</td>
<td>Friday</td>
<td>Saturday</td>
</tr>
<tr>
<td>A</td>
<td>4.55</td>
<td>6.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>4.44</td>
<td>4.92</td>
<td>4.65</td>
<td>3.97</td>
</tr>
<tr>
<td>C</td>
<td>3.93</td>
<td>5.85</td>
<td>4.03</td>
<td>4.25</td>
</tr>
<tr>
<td>D</td>
<td>5.70</td>
<td>6.19</td>
<td>5.38</td>
<td>5.45</td>
</tr>
<tr>
<td>E</td>
<td>3.69</td>
<td>6.72</td>
<td>4.68</td>
<td>5.46</td>
</tr>
<tr>
<td>F</td>
<td>5.00</td>
<td>4.20</td>
<td>4.29</td>
<td>4.90</td>
</tr>
<tr>
<td>G</td>
<td>1.54</td>
<td>2.00</td>
<td>2.52</td>
<td>2.91</td>
</tr>
<tr>
<td>H</td>
<td>1.93</td>
<td>2.29</td>
<td>2.15</td>
<td>2.49</td>
</tr>
<tr>
<td>I</td>
<td>2.80</td>
<td>3.23</td>
<td>2.62</td>
<td>3.39</td>
</tr>
<tr>
<td>J</td>
<td>1.97</td>
<td>2.55</td>
<td>1.79</td>
<td>2.47</td>
</tr>
</tbody>
</table>

*Stores range between 100,000 sq. ft. and 150,000 sq. ft. of gross
  leasable area.
### APPENDIX C - SAMPLE MUNICIPAL PARKING REQUIREMENTS

<table>
<thead>
<tr>
<th></th>
<th>Bloomington Passed November 18, 1958</th>
<th>Roseville Passed March 14, 1977</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retail</strong></td>
<td>1 per 85 sq. ft. retail</td>
<td>5/1,000 sq. ft. gross leasable floor area (G.L.F.A.)</td>
</tr>
<tr>
<td></td>
<td>floor space (11.76/1,000 sq. ft.)</td>
<td></td>
</tr>
<tr>
<td><strong>Family residence</strong></td>
<td>2 spaces per dwelling unit</td>
<td>-</td>
</tr>
<tr>
<td><strong>Multiple dwelling</strong></td>
<td>2.2 spaces per dwelling unit (one in a garage)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Theatres, auditoriums</strong></td>
<td>1/3 seating capacity</td>
<td>0.33 spaces per seat</td>
</tr>
<tr>
<td><strong>Churches</strong></td>
<td>1/3 seating capacity of main sanctuary</td>
<td>1 space 3.5 seats in main assembly hall</td>
</tr>
<tr>
<td><strong>Hospitals</strong></td>
<td>1 space per bed + 1 space per daytime staff</td>
<td>1.2 spaces per bed</td>
</tr>
<tr>
<td><strong>Medical and dental clinics</strong></td>
<td>5 per doctor or dentist + 1 per each other employee</td>
<td>-</td>
</tr>
<tr>
<td><strong>Offices</strong></td>
<td>5/1,000 sq. ft. G.L.F.A.</td>
<td>5/1,000</td>
</tr>
<tr>
<td><strong>Motels</strong></td>
<td>1 per unit + 1 per employee</td>
<td></td>
</tr>
<tr>
<td><strong>Restaurants</strong></td>
<td>1/2.5 seats</td>
<td>10/1,000 G.L.F.A.</td>
</tr>
<tr>
<td><strong>Bowling alleys</strong></td>
<td>5 per lane</td>
<td>6.5/1,000 G.L.F.A.</td>
</tr>
<tr>
<td><strong>Drive-in restaurants</strong></td>
<td>15</td>
<td>1/15 sq. ft. floor area</td>
</tr>
<tr>
<td><strong>Service stations</strong></td>
<td>3 per bay + 1 per daytime employee</td>
<td>3 per service stall (bay) + 4</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>1 per 800 ft. of floor area</td>
<td>1/800 gross building area + 4</td>
</tr>
<tr>
<td><strong>Warehouses</strong></td>
<td>1 per employee + 1 per business vehicle</td>
<td>1/2,000 sq. ft. G.L.F.A.</td>
</tr>
</tbody>
</table>
APPENDIX D - MINNEAPOLIS PROPOSED POLICIES FOR BUILDING PUBLIC, FRINGE PARKING FACILITIES*

"... a policy might be considered (for high density developments) which would indicate the City's willingness to share some of the tax revenues from these structures for construction and maintenance of traffic appurtenances and parking structures when the tax value received per square foot exceeds a certain value. This does not mean that there are not solutions where the demand and the need exists for a lesser-value complex. It would appear that when the values fall below that certain mark of producing so many dollars per square foot of taxes the garage program should revert to Chapter 459 of the State law, which calls for an assessment to be levied against the benefited properties should the income of the garage not succeed in paying for the cost of debt retirement and daily operation. . . .

"I. The City will plan and construct public parking facilities to assist in the development of high density-high value commercial areas if the following criteria are found evident:

1. That the private development generating the need for parking facilities produces annual tax revenues in excess of $10 per square foot on the site used for private construction;

2. That the new development and/or the aggregate of new and existing development will produce at least 50% occupancy of the proposed garage at the time of opening;

3. That reasonable projections indicate that the garage will be filled within five years;

4. That the funds required for debt retirement and an operating subsidy during this first five years will not exceed 25% of the tax revenues from the new development;

5. That the garage must be publicly owned and publicly operated and must permit general public parking.

"II. In the event that revenues from new development yield less than $10 per square foot, public garages can be developed through the use of Chapter 459 of the State Statutes, provided the following criteria are met:

1. That the development will provide a garage capacity of at least 50% at the time of opening;

2. That the garage will be used to capacity within a period of five years;

3. That the benefited property owners within a special parking district will be willing to accept assessments on an annual basis to make up any deficiency in income that would be necessary to meet bond payments and garage operations.

4. That the garage must be publicly owned and publicly operated and must permit general public parking."

*Taken from a report from Thomas A. Thompson, Assistant City Coordinator, November 22, 1977, to the Minneapolis City Council Ways and Means/Budget Committee.

-36-
Parking which meets some, but not all, of the criteria might be allowed a partially lowered classification rate . . . since it is desirable that all business providing parking have some opportunity to share in the incentive for improved parking management.

(2) To reflect the indirect transportation and land-use costs associated with parking, a parking charge would be levied against all employee and customer parking, unrelated to the market value of the parking or its location within the metropolitan area.

This charge would be levied on a metropolitan-wide basis with the charge to reflect the extra public expense of providing roadway capacity and transit service to handle rush-hour commuter transportation, and the cost of serving a very dispersed and segregated pattern of commercial and retail development in the region. Since the costs of the two parking-related problems are not necessarily the same, different levels of assessment may be appropriate for employee and visitor parking.

It appears that an assessment of $6.50 would have been sufficient to cover the property taxes used for the Metropolitan Transit Commission in 1976.* A very modest assessment would cover the administrative costs of organizing and administering an extensive para-transit program for areas not well served by public transit.

Some members of our committee felt that firms not providing employee or visitor parking directly should still pay some parking charge, since they are likely to have some employees or customers parking elsewhere. To solve this problem, a minimum parking assessment might be charged, perhaps something like one employee parking unit per three employees, and customer parking space assessments at the rate of three assessment units per each 1,000 square feet of space used to service customers in retail trade. These amounts suggested should be well below the amount actually used . . . indirectly rewarding a firm for sharing someone else's parking.

*This is based on an estimated 1,500,000 employee, customer and visitor parking stalls raising almost $10 million @ $6.50 per stall.
The committee considered several different alternatives to accomplish the broader public purposes the report envisions for parking facilities. Among the possible approaches are the following:

**Option A: Tax the use of land for parking more, and improvements less.**

The first approach would reduce the tax disparities between expensive ramp parking and surface parking in a more direct way. The Legislature would simply create a new property tax assessment classification for parking that would raise the assessment ratio from the current 43% rate to a higher level for land used in parking, and lower the assessment ratio from 43% for parking structures.

If the ratios are so changed, high-value land used temporarily for parking in the downtowns should be treated differently. Land valued in excess of its utility as parking should be taxed at either its value as parking only, with the higher ratio applied, or its full market value at the 43% ratio, whichever is greater.

**Option B: Broaden basis of taxing parking.**

This second approach would change the basis of taxing parking to reward private parking that is managed consistent with public interest criteria, and make the provision of parking on inexpensive land relatively more expensive.

(1) To reward parking that is managed in the public interest, a new classification of "Community Service Parking" would be established. "Community Service Parking" would then be assigned a property tax classification rate well below the regular level of 43% for other commercial property.

To receive the Community Service Parking classification, some public interest criteria such as those listed below would be required:

- The closest, most convenient parking spaces are reserved for handicapped persons.
- Visitors, customers and other short-term parkers are provided preferential parking over all-day parkers.
- Preferential parking space is assigned for car pools and van pools.
- The parking facility is pooled adequately . . . perhaps subject to a requirement such as to serve three or more separate business establishments or a minimum of 100,000 square feet of gross leasable space.
- The parking facility serves establishments which have their heaviest need for parking at different, non-competitive times, and/or which generally generate demand for parking that occurs over a period of at least 70 hours per week.
THE CITIZENS LEAGUE

... Formed in 1952, is an independent, nonpartisan, non-profit, educational corporation dedicated to improving local government and to providing leadership in solving the complex problems of our metropolitan area.

Volunteer research committees of the CITIZENS LEAGUE develop recommendations for solutions to public problems after months of intensive work.

Over the years, the League's research reports have been among the most helpful and reliable sources of information for governmental and civic leaders, and others concerned with the problems of our area.

The League is supported by membership dues of individual members and membership contributions from businesses, foundations, and other organizations throughout the metropolitan area.

You are invited to join the League or, if already a member, invite a friend to join. An application blank is provided for your convenience on the reverse side.

Officers (1977-78)

President
Eleanor Colborn

Vice Presidents
Rollin H. Crawford
Virginia Greenman
Roger Palmer
Wayne G. Popham
Mary Lou Williams

Secretary
Paul Magnuson

Treasurer
Dale E. Beihoffer

Staff
Executive Director
Ted Kolderie
Associate Director
Paul A. Gilje
Membership Director
Calvin W. Clark
Research Associates
Margo Stark
Berry Richards
William Blazar
Judy Alnes

Directors (1977-78)

Dale E. Beihoffer
Francis M. Boddy
W. Andrew Boss
Allan R. Boyce
Lloyd L. Brandt
Fred C. Cady
John Cairns
Rollin H. Crawford
Gerald R. Dillon
Joseph L. Easley
Leo Foley
Joan Forester
David Graven
Virginia Greenman
Mary Ellen Grika
Paul Hilstad
B. Kristine Johnson
Paul Magnuson
Harry Neimeyer
Martha Norton
Wayne H. Olson
Robert D. Owens
Medora Perlman
Daniel K. Peterson
Roger Palmer
Wayne G. Popham
Rosemary Rockenbach
John Rollwagen
A. Kent Shamblin
Marvin Trammel
Imogene Treichel
Robert W. Wallace
James L. Weaver
Mary Lou Williams
John Yngve

Past Presidents

Charles H. Bellows
Francis M. Boddy
Charles H. Clay
Waite D. Durfee
John F. Finn
Richard J. FitzGerald
Walter S. Harris, Jr.
Peter A. Heegaard
James L. Hetland, Jr.
Verne C. Johnson
Stuart W. Leck, Sr.
Greer E. Lockhart
John W. Mooty
Arthur Naftalin
Norman L. Newhall, Jr.
Wayne H. Olson
Leslie C. Park
Malcolm G. Pfunder
James R. Pratt
Leonard F. Ramberg
Charles T. Silverman
Archibald Spencer
Frank Walters
John W. Windhorst
Rollin Crawford

* Deceased
WHAT THE CITIZENS LEAGUE DOES

STUDY COMMITTEES
- 6 major studies are in progress regularly.
- Additional studies will begin soon.
- Each committee works 2½ hours per week, normally for 6-10 months.
- Annually over 250 resource persons make presentations to an average of 25 members per session.
- A fulltime professional staff of 6 provides direct committee assistance.
- An average in excess of 100 persons follow committee hearings with summary minutes prepared by staff.
- Full reports (normally 40-75 pages) are distributed to 1,000-3,000 persons, in addition to 3,000 summaries provided through the CL NEWS.

PUBLIC LIFE
- 4 pages; published twice monthly, except once a month in June, July, August and December, available to non-members by subscription.
- Includes material in CL NEWS other than that directly relating to Citizens League activities.

PUBLIC AFFAIRS DIRECTORY
- A directory is prepared following even-year general elections, and distributed to the membership.

PUBLIC AFFAIRS
- Members of League study committees have been called on frequently to pursue the work further with governmental or non-governmental agencies.

COMMUNITY LEADERSHIP BREAKFASTS
- Minneapolis Community Leadership Breakfasts are held each Tuesday at the Grain Exchange Cafeteria, 7:30-8:30 a.m., from September to June.
- St. Paul Community Leadership Breakfasts are held on alternate Thursdays at the Pilot House Restaurant in the First National Bank Building, 7:30-8:30 a.m.
- An average of 35 persons attends the 55 breakfasts each year.
- The breakfast programs attract good news coverage in the daily press, radio and, periodically, television.

CITIZENS LEAGUE NEWS
- 6 pages; published twice monthly except once a month in June, July, August and December; mailed to all members.
- Reports activities of the Citizens League, meetings, publications, studies in progress, pending appointments.
- Analysis, data and general background information on public affairs issues in the Twin Cities metropolitan area.

QUESTION AND ANSWER LUNCHEONS
- Feature national or local authorities, who respond to questions from a panel on key public policy issues.
- Each year several Q & A luncheons are held throughout the metropolitan area.

INFORMATION ASSISTANCE
- The League responds to many requests for information and provides speakers to community groups on topics studied.

Citizens League non-partisan public affairs research and education in the St. Paul-Minneapolis metropolitan area. 84 S. Sixth St., Minneapolis, Mn. 55402 (612) 338-0791

Application for Membership  (C.L. Membership Contributions are tax deductible)
Please check one:  □ Individual ($20)  □ Family ($30)  □ Contributing ($35-$99)  Sustaining ($100 and up)  □ Fulltime Student ($10)

Send mail to:  □ home  □ office

C.L. Membership suggested by

(If family membership, please fill in the following.)

SPOUSE'S NAME

SPOUSE'S EMPLOYER/TELEPHONE

POSITION

EMPLOYER'S ADDRESS
Citizens League non-partisan public affairs research and education in the St. Paul-Minneapolis metropolitan area. 84 S. Sixth St., Minneapolis, Mn. 55402