City of Minnetonka Parking Reform Proposal

Prepared by
Chelsey Armstrong, Dustin Kleingartner, and Cadence Peterson

Students in  PA 8202: Networks and Places
Humphrey School of Public Affairs  |  University of Minnesota
Instructor: Jason Cao

On behalf of
Susan Thomas, Principal Planner, City of Minnetonka

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**Resilient Communities Project**
University of Minnesota
330 HHHSPA
301—19th Avenue South
Minneapolis, Minnesota 55455
Phone: (612) 625-7501
E-mail: rcp@umn.edu
Web site: http://www.rcp.umn.edu

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Background

Vision and Goals

The City of Minnetonka’s parking regulations are currently outdated and take a conservative approach to parking management. Revision of the city’s parking regulations would allow the city to achieve its goals and further become a city where “quality is nature” as it envisions1.

Minnetonka has the following goals regarding parking:

1. Create efficient land uses
2. Facilitate mixed-use and higher density development
3. Decrease impervious surface and reduce stormwater run-off
4. Encourage conservation design techniques in site planning

This report seeks to provide the City of Minnetonka with guidance regarding the restructuring of the city’s parking management practices and more fully realize its visions and goals related to the natural environment, public safety, transportation, development, and community building.

Geographic Location

The City of Minnetonka, Minnesota is located approximately eight miles west of Minneapolis.

Current Urban Form

Minnetonka has developed thus far in a suburban, low-density pattern. According to the Metropolitan Council, the city has a land area of 28 square miles and a population density of 1,787.36 people per square mile. Due to the city’s low-density development patterns, it is a very auto-reliant urban landscape. Developers in Minnetonka have, therefore, developed their properties to meet this demand by paving much of the city with large, sprawling parking lots.

**Current Parking Policies**

The City of Minnetonka currently requires the following parking requirements:

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-family Residence</td>
<td>2 spaces per dwelling unit</td>
</tr>
<tr>
<td>Multi-family Residence</td>
<td>2 spaces per dwelling unit</td>
</tr>
<tr>
<td>Senior Citizen Housing</td>
<td>1 space per unit</td>
</tr>
<tr>
<td>Boarding or Lodging</td>
<td>1 space for each two persons of accommodation</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>1 parking space for every four beds; 3 spaces for every 4 employees on a major shift</td>
</tr>
<tr>
<td>Hospital</td>
<td>1 space for every two beds; plus one space for each employee on a major shift</td>
</tr>
<tr>
<td>Religious Institutions</td>
<td>1 space for each 2.5 seats</td>
</tr>
<tr>
<td>Senior High School</td>
<td>1 space for each classroom, plus 1 space for every 10 students</td>
</tr>
<tr>
<td>Elementary/Junior High School</td>
<td>10 spaces, plus 1 space for each 500 square feet of floor area</td>
</tr>
<tr>
<td>Municipal Buildings</td>
<td>1 space for every two beds; plus one space for each employee on a major shift</td>
</tr>
<tr>
<td>Golf Course</td>
<td>1 space for each 500 square feet of floor area</td>
</tr>
<tr>
<td>Office Building</td>
<td>1 space for each 250 square feet of floor area; Minimum of 10 spaces</td>
</tr>
<tr>
<td>Medical or Dental Office</td>
<td>1 space for each 175 square feet of floor area with a minimum of 20 spaces</td>
</tr>
<tr>
<td>Shopping Center</td>
<td>Regional: Minimum of 5.5 spaces per 1,000 square feet</td>
</tr>
<tr>
<td></td>
<td>Neighborhood: Minimum of 4.5 spaces per 1,000 square feet of gross area</td>
</tr>
<tr>
<td>Automobile Service or Gas Station</td>
<td>4 spaces, plus 3 spaces for each stall, 1 space for each 250 square feet of building</td>
</tr>
<tr>
<td>Bowling Alley</td>
<td>1 space for each 250 square feet of floor area; Minimum of 20 spaces</td>
</tr>
<tr>
<td>Hotel or motel</td>
<td>1 space per room, plus 1 space per employee on the major shift; 1 space per 4.5 persons of capacity in other facilities</td>
</tr>
<tr>
<td>Health or Fitness Center</td>
<td>1 space for each 225 square feet of floor area</td>
</tr>
<tr>
<td>Miniature Golf Course</td>
<td>1.5 spaces per golf hole</td>
</tr>
<tr>
<td>Archery or Golf Driving Range</td>
<td>1 space for each target or driving tee</td>
</tr>
<tr>
<td>Hall, Auditorium, Arena, or Conference Center</td>
<td>1 space for each 3 seats</td>
</tr>
<tr>
<td>Theater</td>
<td>1 space for each 3 seats for theaters with 15 screens; 1 space for each 4 seats for larger theaters</td>
</tr>
<tr>
<td>Restaurant, Tavern, or Lounge</td>
<td>1 space per 60 square feet or 1 space per 2.5 seats (No liquor or dancing); 1 space per 50 square feet or 1 space per 2 seats (Liquor and/or dancing); 1 space per 60 square feet (Fast food)</td>
</tr>
<tr>
<td>Skating Rink</td>
<td>1 space for each 200 square feet</td>
</tr>
<tr>
<td>Retail Store or Service Establishment</td>
<td>1 space for each 250 square feet; Minimum of 5 spaces</td>
</tr>
<tr>
<td>Wholesale Business, Storage, or Warehouse</td>
<td>1 space for each 1,000 square feet</td>
</tr>
<tr>
<td>Manufacturing, Processing, or Assembly Plant</td>
<td>1 space for each employee on a major shift or 1 space for each 350 square feet devoted to manufacturing plus 1 space per 250 square feet devoted to office use</td>
</tr>
<tr>
<td>License Day Care Facility</td>
<td>1 space for every 6 children</td>
</tr>
</tbody>
</table>
Minnetonka’s parking ordinance requires that parking spaces be surfaced with asphalt, concrete, or equivalent material. It also suggests that traffic islands should be utilized for traffic control. Finally, the city holds the ability to reduce the required amount of parking if warranted and/or lower parking demand has been documented at similar developments. In this situation, the City requires “proof of parking” in the form of land set aside on the site plan that can be developed as parking if the need arises.3

**Need for Change and Improvement**

There are several reasons why Minnetonka’s parking ordinances should be changed and improved. First, there are many large parking lots in Minnetonka that are likely underutilized and larger than necessary. This creates wasted land, loss of economic value, and an abundance of runoff from the large impervious surfaces.

Minnetonka’s parking ordinances also need change and improvement because they are complicated yet vague. As noted in the current parking policies section, there are many different requirements depending on type of use. Requirements even vary within a specified use, increasing the complexity of the ordinance. Despite the complex policies, there are also vague statements in the ordinance regarding the city’s ability to alter requirements for “unique characteristics or documented parking demand for similar developments”4.

**Literature Review**

In most areas, parking spaces are abundant and are available to be used by the public free of charge. While this may seem to be a great benefit to the public, upon further examination the true costs of offering free parking are revealed. Implementing minimum parking requirements is a common practice in modern planning, which often exacerbates the problems associated with parking. Much has been written about the costs and benefits involved with parking, as well as the strategies that could be employed to help alleviate some of the problems. The section that follows is a discussion of the work that has been done thus far on this subject.

**Parking Planning Process**

There are many different ways that cities plan for parking. Regardless of how they do it, Donald Shoup, in his book *The High Cost of Free Parking*,

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3,4 City of Minnetonka. Minnetonka Code of Ordinances (Section 300.28)
explains that planners follow three main steps. The first step that must be taken is to define the land use. There are hundreds of established different land uses, each requiring unique parking specifications based on their individual demands. It is important that this is established so that there is consistency and understanding among developers and city officials.

The next step in this process involves choosing the basis on which to set the requirements. One of the most common ways that parking requirements are set is making the decision based on the number of people that are expected to use the site. Planners often consult the report Parking Generation by the Institute of Transportation Engineers to determine parking ratios. This study is problematic because it only measures peak parking occupancy in heavily auto-dependent communities. Thus, it grossly overestimates average parking demand. In addition, many of these ratios are based on the square footage of retail establishments. A study of parking demand in Home Depot parking lots by Parsons Transportation Group found no relationship between actual parking demand and square footage. The way we determine parking ratios is problematic because it can lead to a disconnect between the use of the site and the number of parking spaces that are created.

After these two steps are taken, the number of parking spaces must be specified. The estimate for the number of parking spaces that are needed is based on the forecasted peak demand. Many of the calculations made in the forecasting process are straightforward, while others become quite convoluted, which results in seemingly arbitrary outcomes. The problems that have resulted from this process are widespread, and it has become apparent that reform is needed.

**Benefits and Costs of Parking**

**Benefits**

Parking provides many benefits. Although it is clear that there are problems with the way that planning for parking has been approached, parking is a necessary commodity. Employers and businesses require

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sufficient parking for employees and to allow customers to easily patronize their businesses. In a society that is dependent on automobiles, a certain amount of parking is necessary to satisfy the needs of residents. Without adequate parking, businesses and other establishments suffer. What is problematic is the over-abundance of available parking and the fact that most of it is seemingly free.

Costs
Free parking provides an incentive to drive alone. The ease of finding parking can make other modes of transportation, such as mass transit, less desirable. By not charging the appropriate amount for parking, the use of single occupancy vehicles is encouraged. The environmental impact report of a new parking structure at the University of California, Los Angeles estimated that each new surface parking space would generate a total of 3.8 vehicle trips per weekday by increasing the incentives for driving\textsuperscript{10}. This type of behavior has also been encouraged by the low-density development that has been occurring for more than a half century. The minimum parking requirements inherent in this type of development have added immensely to the problem.

There are other environmental costs associated with providing too much parking. Large surface lots can pose a significant threat to local environments. Often paved with impermeable, heat absorbing materials, parking lots can have harmful effects on the environment. These impervious surfaces have negative implications for local watersheds. The paving materials most often used for surface parking lots also have the ability to create ‘heat islands’ within urban areas, increasing the temperature in the area\textsuperscript{11}.

There are also significant opportunity costs associated with excess parking. Providing too many parking spaces wastes land that could be put towards more valuable uses\textsuperscript{12}. Large parking lots also harm the pedestrian connectivity of urban areas by creating large areas of underutilized land that are unappealing to walk across.

Parking-related Policies

Different types of policies have been employed in an attempt to deal with the problems created by excessive parking. Recently, many cities have been focusing on improving the accessibility of mass transit and creating walkable streets. Cities have done this by providing incentives to use mass transit and creating transit friendly parking designs\textsuperscript{14}. Reducing parking requirements is another effective way to address this issue. By managing the amount of parking required for new developments, areas are better able to control the density of an area.

Tools to Address Parking Concerns

Parking Pricing
Parking pricing is a powerful tool for controlling the growth of excess parking. Most parking is underpriced. This discourages people from modifying their travel behavior and results in an increased demand for parking. Determining the appropriate price for parking in a given area is crucial. There are a number of ways that this can be done. On-street


parking must be priced in a way that encourages appropriate turnover by incentivizing people to shorten the duration of their trips. When this is done correctly, there should be one vacant parking spot per block, or 15 percent availability\(^8\). It is important to inform business owners of the benefits that they will see from this type of pricing, highlighting the idea of a greater customer base due to the increased turnover in available parking spots.

**Parking Impact Fees**

Parking impact fees can be used to manage parking in off curb-parking settings. Cities can impose a surcharge of their choosing on parking ramps in the area. The fee will discourage developers from constructing parking that exceeds demand. This fee will increase the cost of parking and deter some people from driving. The fee will also generate revenue. San Francisco has been practicing this for nearly twenty years, and the amount of revenue that is generated is substantial\(^15\). This revenue can be used to fund public transit programs in the area.

**Shared Parking**

Shared parking is a useful strategy in some areas. One way to reduce parking requirements in suburban areas is to allow developers to share parking. This strategy allows for greater density and may help to increase transit ridership\(^16\). Developments such as shopping centers may not need specified amounts of parking for individual stores, and may be able to provide sufficient parking spaces by sharing their lots. Parking can be coordinated based on high demand times for each entity. This encourages efficient use of a smaller amount of space.

**Travel Demand Management Plans**

Some cities require developers to create Travel Demand Management plans in order to receive permits. This is intended to get developers thinking about alternate ways that people could access their development. These plans aim to encourage transit use, biking, walking, and telecommuting\(^11\). By incentivizing developers to include alternate modes of transit in their plans, this may help communities reduce their average parking demand. This will allow communities to grow in a way that is not impeded by excessive parking requirements.

Parking Maximums
Another way for cities to deal with the oversupply of parking is by setting parking maximums. This practice can help eliminate excessive parking in certain locations. In some areas, if the developer hopes to exceed the permitted number of parking spaces, the city will reduce the approved size of the project. Cities that provide good transit services are able to avoid these types of regulations altogether. Allowing people easy access to public transportation eliminates the need to provide such an abundance of parking spaces, and as such, can eliminate the need to develop regulations meant to manage such a situation. By providing sufficient public transit and foregoing minimum parking requirements in certain areas, cities enable a type of growth that is not possible with sprawling surface parking lots.

There is an abundance of information available regarding parking policies and practices. This information should be utilized when developing plans for future growth. Many lessons have been learned regarding the failings of previous parking planning, and it is the responsibility of current planners to ensure that these mistakes are not repeated. The strategies that have been discussed are powerful tools that communities can use to improve their neighborhoods. By employing these strategies, planners and developers can work together towards the goal of creating communities that are able to thrive for years to come.

Recommendations
Based on Minnetonka’s vision and goals for the city, the current amount of land devoted to parking, and best practices from literature review and other cities, we recommend the follow changes to Minnetonka’s parking ordinances:

Simplify parking requirements
Minnetonka’s current parking requirements give minimum parking ratios for 29 different land use types. Requirements vary within individual use types; this increases the complexity of the ordinance. Many of these land use categories have very similar parking requirements. Simplifying these requirements will encourage the redevelopment of existing parcels. Under existing parking requirements, neighborhood shopping centers require 4.5 spaces per 1,000 square feet of gross area and office spaces
require 4 spaces per thousand square feet. A developer who wishes to purchase a parcel occupied by office space and redevelop it for retail purposes may be prevented from doing so due to insufficient parking. This unnecessarily hinders development because the parking needs of these land uses are very similar. We recommend that Minnetonka greatly reduce the total number of land use categories and reduce variations within individual use types.

**Reduce minimum parking regulations**
We recommend Minnetonka reduce minimum parking requirements. This recommendation is based on the Assembly Bill 32 Global Warming Solutions Act from the California State Legislature. This bill was generated in 2006 to help municipalities change their parking requirements in order to minimize the environmental externalities of excessive parking. Following minimum parking reductions, follow-up assessments should be conducted to determine their effectiveness in Minnetonka and if adjustments are needed.

Minimum Parking Reduction Example:
Reduce minimum parking requirements for all general office, general retail, commercial, and similar development to two spaces per 1,000 square feet.

**Create a development impact fee for parking that exceeds a prescribed ratio**
The City of Minnetonka’s current parking ordinance does not set maximum parking ratios. We do not find a maximum parking requirement to be appropriate for a suburban community like Minnetonka. It is a fairly auto-reliant community, and such a restriction would place unnecessary risk on developers. We believe that development impact fees may be more appropriate and have a similar desired effect without the same negative implications. Development impact fees charge developers that exceed a desired maximum parking ratio. These fees reflect the external costs of excess parking and force developers to more carefully consider the amount of parking that they construct. A 2001 study from the University of California estimated that the total external costs of a parking space totaled about $117 per month. This number was found by factoring in the expected increase in greenhouse gas emissions and the expected increase in traffic congestion. This results in an expected impact of about $7,000 over five years, which is well under the expected life cycle of

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17 Assembly Bill 32, 2006, Global Warming Solutions Act, California State Legislature.
a surface parking space. Development impact fees may be waived if structured parking is built with proper stormwater management. Such parking structures reduce many of the externalities associated with surface parking lots and are significantly more costly to the developer.

**Provide Incentives for Structured Parking**

Due to the benefits discussed previously, we recommend that density bonuses be provided for developers that build structured parking. Such bonuses allow higher densities or floor area ratios if parking is located in structures above or below ground.

Example of structured parking with surface level retail and office space in Philadelphia

*Example of a Density Bonus for Structured Parking:*  
If 50 percent or more of all required off-street parking spaces are provided above or below ground, the following bonuses apply:

1. For each space above or below ground, 300 square feet may be added as lot area for the purpose of determining permitted ground floor area.
2. The height added to the principle structure by any floor that is totally used for parking in or under the principle structure shall not be included to determine the size of the required yards

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19 Photo by author  
20 City of Saint Louis Park Municipal Code, 2002, Ch. 36, Art. IV, Sec. 36-361, 36-367
Lower parking requirements for locations with alternative transportation options

Uniform parking requirements fail to take into account localized conditions that may reduce parking demand. While the City of Minnetonka currently allows for reductions in minimum parking requirements based on unique characteristics or a documented demand for less parking in similar developments, proof of parking is required if these reductions are granted. In addition, the ordinance provides few details regarding the unique characteristics that warrant reduced parking requirements. We recommend that Minnetonka allow for lower parking requirements in areas that have enacted measures intended to reduce parking demand. This will both reduce excess parking and encourage establishments to be proactive in reducing their parking demand. The City of Saint Louis Park has adopted similar parking requirements and demonstrates that such regulations have been successful locally.21

Examples of Lower Parking Requirements in Areas with Reduced Demand:
- 5-15% reduction in parking requirements in areas with good access to transit or areas that provide bicycle racks
- Allow on street parking to count towards the parking requirement if the building is located next to the street
- Up to a 5% reduction in parking requirements for the implementation of a travel demand management plan. This plan is subject to yearly review.
- Up to a 15% reduction in planned unit developments if developers can prove that they are providing access to transit, good pedestrian connection, or low/moderate income housing

Encourage shared parking

We recommend that Minnetonka include shared parking as an option with the city’s parking ordinance. Shared parking is currently allowed by other local cities, including Minneapolis, St. Paul, and Saint Louis Park. Shared parking allows local businesses and landowners to collectively provide parking. Minimum parking requirements can be reduced when shared parking is used, because it creates the opportunity for “park once” areas. These are areas where visitors park once and travel by foot or transit to various establishments, thereby reducing their overall parking demand. Parking requirements can be reduced even further when the developments’ occupants have peak parking demands at different times of the day or week. An example of this is a situation in which a movie theater and an office building share parking.

21 City of Saint Louis Park Municipal Code, 2002, Ch. 36, Art. IV, Sec. 36-361, 36-367
Saint Louis Park allows for shared parking under the following conditions:

1. The uses have their highest peak demand for parking at substantially different times of the day or week, or an adequate amount of parking is available for both uses during shared hours of peak demand.
2. The minimum number of spaces required under a shared parking agreement shall be based on the number of spaces required for the use that requires the most parking.
3. Shared parking facilities shall be protected by an irrevocable covenant running with the land and recorded with the County in a form approved by the City Attorney. A certified copy of the recorded document shall be provided to the Zoning Administrator within 60 days after approval of the agreement by the City Council.

Minnetonka has allowed for shared parking at the Glen Lake development. We recommend that guidelines for such agreements be added to the parking ordinance and that the city continue facilitating negotiations and shared parking agreements with businesses at this and other locations throughout the city.

Example of parking shared by a middle school and a church in Ventura, CA.
**Allow for Off-Site Parking**
Allowing for off site parking within walking distance can create greater opportunities for shared parking and the creation of park once districts. This allows for shared parking between properties that do not directly abut one another.

**Improve pedestrian amenities within parking areas**
In order for shared parking to be effective, pedestrians must feel comfortable navigating to multiple locations within the parking lot and development site. Pedestrian amenities and safety can be improved through the implementation of pedestrian islands, landscaping, benches, and wayfinding signage. The easier and more the pleasant the navigation is for the pedestrian, the more likely that they will utilize the shared parking.

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Zone for additional mixed-use development
Mixed-use developments create the ideal environments for reduced and shared parking. Since multiple uses are present in one development, people are able to park once and accomplish several tasks without moving their vehicle. Mixed-use developments also frequently incorporate residential uses. Those living in the development that also work or shop there would not require a parking space, thus further reducing the amount of parking necessary.

Encourage infill development or alternative uses on excessive existing surface parking
Minnetonka has a number of large parking lots that exceed parking demand. Minnetonka should encourage infill development or other alternative land uses on existing surface parking lots. Examples of alternative land uses may include:

1. Utilizing extra space to widen abutting sidewalks. This can provide room for landscaping, separate bike paths, or outdoor seating at cafes and restaurants.
2. Utilizing extra parking spaces for either a temporary or permanent Metro Transit park-and-ride. This would prevent Metro Transit from paving additional land for their riders, as well as potentially increase sales for the businesses currently with excess parking capacity.
Provide incentives for use of permeable pavers

The City of Minnetonka’s current parking ordinance states that an asphalt, concrete, or equitant surface be used to pave parking spaces. This does not prohibit the use of permeable pavers, but developers may be unwilling to experiment with the technology due to its higher cost. Minnetonka should offer incentives to developers that utilize permeable pavers. This material reduces the amount of impervious surface on the development, which can help reduce problems associated with stormwater runoff. The variety of permeable pavers available to developers has increased dramatically over the past thirty years and developers should be allowed the flexibility to determine which type they want to use. Developers using pervious pavers in their parking lots should present an appropriate maintenance plan in order to be eligible for the incentives. Pervious pavers clog and, therefore, regular maintenance is necessary so the pavers remain effective.

Potential Barriers

Developer Resistance
The City of Minnetonka should expect some resistance from developers with the implementation of the revised parking policies. Developers will be especially resistant to the new development impact fees that will be applied to developments that exceed the desired maximum parking threshold. Commercial developers in Minnetonka are accustomed to building parking to a point that drastically exceeds even peak parking demand. They may be concerned that they will make their commercial properties less attractive to potential tenants by reducing the amount of parking they build. Tenants will want to be sure that adequate parking is available so that people can shop in their stores. Developers of residential properties will be less resistant to the parking maximums. Because most private homes provide parking through driveway space, they are exempt from the development impact fees. It is unlikely that a developer of multifamily housing will desire to provide more than two parking spaces per unit.

Commercial Landowner Resistance
Owners of existing commercial properties may be opposed to the reductions in minimum parking requirements. These landowners may fear that new development will not build sufficient parking to meet demand. This will encourage customers of other establishments to use their parking lots. This has the potential to reduce the amount of parking available for their customers and to increase their maintenance costs.

Mitigation Techniques

Implement on a Trial Period
When communicating with developers, the City of Minnetonka should emphasize the fact that all changes to parking requirements will be subject to review after one year. At this time, the ordinances may be adjusted to better meet the demands of the City. If the ordinances are placing an undue burden on developers or a shortage of parking, both minimum and maximum parking requirements can be raised.

Monitor Performance
During the one-year trial period, the City will monitor the performance of developments impacted by the new parking ordinance. This will ensure that decisions made when reviewing the ordinance are in the best interest of the City, residents, developers, and other stakeholders.
Transparency and Communication
To build trust with developers and the community, transparency and communication are vitally important. Information regarding the parking ordinance must be publicly available and presented in a clear and well-organized manner.

Conclusion
In conclusion, our proposal is designed to help Minnetonka meet its goals of creating efficient land uses, facilitating mixed-use and higher density development, decreasing impervious surface and reduce stormwater run-off, and encouraging conservation design techniques in site planning. In order to achieve these goals, it is necessary that the amount of parking in the City be reduced.

We propose to reduce parking by lowering onerous minimum parking requirements and implementing developer impact fees, which should be placed on developments that exceed the maximum parking ratio. This aims to discourage developers from constructing excessively large parking lots.

Our proposed recommendations provide a formula for the city to further reduce parking in areas that have taken measures to lower parking demand. This will reduce the amount of parking that is inefficiently located in areas where it is not needed. Allowing shared parking and off-site parking will help the Minnetonka further reduce parking demand by facilitating the creation of “park once” commercial districts.

Finally, guidelines that encourage landscaping, pedestrian access, and permeable pavers will help mitigate the externalities of the parking that will be constructed.
Draft of Revised Parking Ordinance

The recommendations provided in this report have been incorporated into Minnetonka's current parking ordinance. Changes resulting from this report are highlighted in red.


a. Parking and loading shall be provided and maintained in accordance with the following.

1. No change of use, tenancy or occupancy of a parcel of land or building, including construction of a new building or an addition to a building, which requires additional parking or loading spaces shall be allowed until such additional parking or loading is approved and furnished. Review may be required under the site and building plan review procedures of section 300.27 of this ordinance.

2. Required parking and loading areas and the driveways providing access to them shall not be used for storage, display, sales, rental or repair or motor vehicles or other goods or for the storage of inoperable vehicles or snow.

3. Required parking and loading spaces shall be located on the same development site as the use served. The city may approve off-site parking if the city council finds the following:
   i. reasonable access shall be provided from the off-site parking facilities to the use being served;
   ii. the parking shall be within 400 feet of a building entrance of the use being served;
   iii. the parking area shall be under the same ownership as the site served, under public ownership or the use of the parking facilities shall be protected by a recorded instrument, acceptable to the city;
   iv. failure to provide on-site parking shall not encourage parking on the public streets, other private property or in private driveways or other areas not expressly set aside for such purposes; and
   v. the off-site parking shall be maintained until such time as on-site parking is provided or an alternate off-site parking facility is approved by the city as meeting the requirements of this ordinance.

4. Notwithstanding any other provision of this subdivision to the contrary, a land use may provide the required off-street parking area for additional land uses on the same development site if the following conditions are met:
i. because of the hours of operation of the respective uses, their sizes and their modes of operation there will be available to each use during its primary hours of operation an amount of parking sufficient to meet the needs of such use; and

ii. the joint use of the parking facilities shall be protected by a recorded instrument, acceptable to the city.

5. Bicycle parking facilities shall be provided in an amount and design adequate to the demand generated by each use.

6. Parking areas shall not be used to meet stormwater holding requirements as specified in the water resources management plan.

7. Parking areas and structures shall be designed and maintained to avoid vehicles queued within the public right-of-way. Gates or other access limiting devices may be installed only after a finding by the city that no adverse impacts on public right-of-way will result.

b. Parking areas shall be designed in conformance with the following:

(Figure 26)

**Figure 26**

1. Parking stalls shall have a minimum paved dimension of 8.5 feet by 18 feet. Stall and aisle dimensions shall be as noted below for the given angle:

<table>
<thead>
<tr>
<th>Angle</th>
<th>Curb Length</th>
<th>Stall Length</th>
<th>Aisle</th>
<th>Low-Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>45°</td>
<td>12.0'</td>
<td>18.0'</td>
<td>13.5'</td>
<td>12'</td>
</tr>
<tr>
<td>60°</td>
<td>10.0'</td>
<td>18.0'</td>
<td>18.5'</td>
<td>16'</td>
</tr>
<tr>
<td>75°</td>
<td>9.0'</td>
<td>19.0'</td>
<td>23'</td>
<td>18'</td>
</tr>
<tr>
<td>90°</td>
<td>8.5'</td>
<td>18.0'</td>
<td>26'</td>
<td>24'</td>
</tr>
<tr>
<td>Parallel</td>
<td>20.0'</td>
<td>8.0'</td>
<td>22'</td>
<td>22'</td>
</tr>
</tbody>
</table>
2. Up to 25 percent of the total number of required spaces may be for compact cars and have minimum paved dimensions as follows:

<table>
<thead>
<tr>
<th>Angle</th>
<th>Curb Length</th>
<th>Stall Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>45°</td>
<td>10.0'</td>
<td>16.0'</td>
</tr>
<tr>
<td>60°</td>
<td>8.5'</td>
<td>17.5'</td>
</tr>
<tr>
<td>75°</td>
<td>8.0'</td>
<td>16.5'</td>
</tr>
<tr>
<td>90°</td>
<td>7.5'</td>
<td>16.0'</td>
</tr>
<tr>
<td>Parallel</td>
<td>16.0'</td>
<td>8.0'</td>
</tr>
</tbody>
</table>

Compact car parking may be provided if the following conditions are met:

a. the parking area shall have a total size of at least 20 stalls;
b. compact car stalls shall be identified by appropriate directional signs consistent with sections 300.30 et seq. of the code of city ordinances;
c. compact car stalls shall be distributed throughout the parking area so as to have reasonable proximity to the structure served but shall not have generally preferential locations such that their use by non-compact cars will be encouraged;
d. the design of compact car areas shall to the maximum feasible extent be such as to discourage their use by non-compact cars; and
e. compact parking stalls shall not be permitted for high turnover parking lots.

3. All parking areas except those serving one and two family dwellings on local streets shall be designed so that cars shall not be required to back into the street. If deemed necessary for traffic safety, turn-around areas may be required.

4. Buffers and setbacks shall be provided as follows.
   a. Access drives, driveways and aisles shall not be allowed to intrude into a required parking setback except at the access point or where a joint drive serving more than one property will provide better or safer traffic circulation; and
   b. Parking lots, driving aisles, loading spaces and maneuvering areas shall have setbacks as indicated in the following table:

<table>
<thead>
<tr>
<th>Land use designation of adjacent property</th>
<th>Zoning classification of subject property</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R1/R2</td>
</tr>
<tr>
<td>R1- with CUP for public buildings</td>
<td>20'</td>
</tr>
<tr>
<td>Low density</td>
<td>20'</td>
</tr>
<tr>
<td>Medium density</td>
<td>20'</td>
</tr>
<tr>
<td>High density</td>
<td>20'</td>
</tr>
</tbody>
</table>
c. Space provided by the 20' setback between parking and sidewalks and streets shall be landscaped to provide a visual buffer between pedestrians and parking. This landscaping may be used to satisfy other landscaping requirements and the requirements of a stormwater management plan.
d. Land use of adjacent property is as designated in the comprehensive plan. Where a mix of land uses is indicated on the comprehensive plan for adjacent property, the most restrictive applicable buffering requirement shall be observed. The requirements of this table may be waived at points where shared access is utilized.

5. All parking and loading areas, aisles and driveways shall be bordered with raised concrete curbs or equivalent approved by the city. Single family and two family dwelling developments shall be exempted from this requirement.

6. All parking, loading and driveway areas shall be surfaced with asphalt, concrete or equivalent material approved by the city except single family homes which are subject to the driveway provisions of section 1105 of the code of city ordinances.

7. Except in the R-1 and R-2 districts, all parking stalls shall be marked with painted lines not less than four inches wide in accordance with the approved site and building plan.

8. All parking lots shall provide islands for traffic control as needed.
   i. These islands shall be designed to provide refuge for pedestrians.
   ii. Landscaping, wayfinding signage, and benches shall be used as needed to create a comfortable environment for pedestrians. These amenities shall be required in parking lots exceeding 8,000 square feet.

   c. The number of required parking spaces shall comply with the following.
   a. Calculating the number of spaces shall be in accordance with the following:

<table>
<thead>
<tr>
<th>Category</th>
<th>20'</th>
<th>10'</th>
<th>10'</th>
<th>10'</th>
<th>10'</th>
<th>10'</th>
<th>10'</th>
<th>20'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>20'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>20'</td>
</tr>
<tr>
<td>Industrial</td>
<td>20'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
</tr>
<tr>
<td>Office</td>
<td>20'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>10'</td>
<td>20'</td>
</tr>
<tr>
<td>Institutional</td>
<td>20'</td>
<td>10'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
</tr>
<tr>
<td>Public Open Space</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
</tr>
<tr>
<td>Right-of-way</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
<td>20'</td>
</tr>
</tbody>
</table>
i. if the number of off-street parking spaces results in a fraction, each fraction of one-half or more shall constitute another space;

ii. in churches and other places of public assembly in which patrons or spectators occupy benches, pews or other similar seating facilities, each 24 inches of such seating shall be counted as one seat for the purpose of this subdivision;

iii. except in shopping centers or where joint parking arrangements have been approved, if a structure contains two or more uses, each use shall be calculated separately in determining the total off-street parking spaces required;

iv. for mixed-use buildings, parking requirements shall be determined by the city based on the existing and potential uses of the building. In cases where future potential uses of a building will generate additional parking demand, the city may require a proof of parking plan for the difference between minimum parking requirements and the anticipated future demand; and

v. if warranted by unique characteristics, or documented parking demand for similar developments, or both, the city may allow reductions in the number of parking spaces actually constructed as long as the applicant provides a proof of future parking plan. The plan must show the location for all minimum required parking spaces in conformance with applicable setback requirements. The city may require installation of the additional parking spaces whenever the need arises.

2. The minimum number of off-street parking spaces of each use shall be as follows:

<table>
<thead>
<tr>
<th>Use</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Office/Retail/Commercial/Entertainment/Recreation/Municipal Building</td>
<td>Two spaces per thousand square feet of floor area</td>
</tr>
<tr>
<td>Residential/Lodging</td>
<td>One space per unit (home, apartment, hotel room)</td>
</tr>
<tr>
<td>Educational</td>
<td>Two spaces per classroom</td>
</tr>
<tr>
<td>Doctor/Dental office</td>
<td>One space per 200 feet of floor space</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>One space for every 5 beds; three spaces for every four employees on a major shift</td>
</tr>
<tr>
<td>Hospital</td>
<td>One space for every 2.5 beds plus</td>
</tr>
<tr>
<td>Use</td>
<td>Parking Ratio</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Religious</td>
<td>One space for every three seats</td>
</tr>
<tr>
<td>Restaurant</td>
<td>One space per table</td>
</tr>
<tr>
<td>Industrial</td>
<td>One space per employee or one space per 350 square feet of floor space</td>
</tr>
<tr>
<td>Day Care</td>
<td>One space per employee plus one space for every ten children</td>
</tr>
</tbody>
</table>

Minimum parking ratios shall be subject to review after one year.

3. A development impact fee of $7,000 per space shall be paid by all development whose parking exceeds the recommended maximum parking ratios. The maximum parking ratios for each use shall be as follows:

<table>
<thead>
<tr>
<th>Use</th>
<th>Parking Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Office/Retail/Commercial/Entertainment/Recreation/Municipal Building</td>
<td>5 spaces per 1,000 square feet of floor space</td>
</tr>
<tr>
<td>Residential/Lodging</td>
<td>Two spaces per unit (home, apartment, hotel room)</td>
</tr>
<tr>
<td>Educational</td>
<td>One space for each classroom plus one space for every 10 students</td>
</tr>
<tr>
<td>Doctor/Dental office</td>
<td>One space for each 175 square feet of floor space</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>1 parking space for every four beds; 3 parking spaces for every four employees on a major</td>
</tr>
<tr>
<td>Hospital</td>
<td>1 space for every 2 beds; plus one space for each employee on a major shift</td>
</tr>
<tr>
<td>Religious</td>
<td>One space for each 2.5</td>
</tr>
<tr>
<td>Restaurant</td>
<td>1 space per 60 square feet of floor space or one space per 2.5 seats (no liquor or dancing); one space per 50 square feet or one space per 2 seats (liquor and dancing); one space per 60 square feet</td>
</tr>
<tr>
<td>Industrial</td>
<td>One space for each employee on a major shift or one space for each</td>
</tr>
</tbody>
</table>
Development impact fees may be waived if subsurface parking is utilized. The planning commission shall approve application for development impact fee waivers if the applicant can provide a documented need for higher parking ratios. Development impact fees will be waived on residential properties if parking in excess of the desired maximum is provided in a driveway that complies with current setback requirements.

Maximum parking ratios shall be subject to review after one year.

4. Minimum parking requirements may be lowered under the following conditions:
   i. Parking may be reduced by 15 percent for any parcel located within one-quarter of a mile of a transit stop or has access to pedestrian and bicycle trails.
   ii. Parking may be reduced by 50% for any parcel located with one-half mile of a the proposed Shady Oaks and Hopkins LRT stations.
   iii. Parking may be reduced by 5% percent if the establishment provides bicycle racks.
   iv. Parking may be reduced on a one-for-one basis through the use of on-street parking adjacent to the parcel. To qualify, adequate pedestrian access must be available between the principal structure and all on-street parking spaces. On-street parking reductions may be approved by the Zoning Administrator, subject to a determination by the City Engineer that adequate off-street parking will be available to accommodate vehicles during snow removal and other periods of parking restrictions.
   v. Parking may be reduced by 5% through the implementation of a Travel Demand Management Plan. Such a plan shall be filed and approved by the zoning commission and shall be subject to yearly review.

5. If it can be proven that required parking exceeds actual parking demand, the total required amount of parking need not be constructed. Space must be set aside for parking not constructed on the site plan so that it may be constructed at
such time that the zoning commission or the property owner deems necessary. The area set aside for parking shall be landscaped, but the landscaping shall not be counted towards other landscaping requirements.

6. If 50% or more of all required off-street parking is provided underground the following bonuses shall apply:
   i. For each underground space, 300 square feet shall be added to the lot area to determine the total permissible ground floor area.
   ii. The height added to the principle structure by any floor that is totally used for parking shall not be included to determine the size of required yards.

7. Shared off-street parking facilities shall be allowed to collectively provide parking for more than one structure under the following conditions:
   i. The uses have their highest peak demand for parking at substantially different times of the day or week, or adequate amount of parking for both uses is provided for shared hours of peak demand.
   ii. The minimum parking requirement is based on the number of spaces required for the use that requires the most parking.
   iii. Shared parking facilities shall be protected by an irrevocable covenant running with the land that is recorded by the County in a form approved by the City Attorney. A certified copy of this document shall be provided to the Zoning Administrator prior to approval or the shared parking agreement.

8. Facilities shall be allowed to meet their parking requirements off-site under the following conditions:
   i. A paved pedestrian path is provided between off-site parking and the facility
   ii. The off-site parking facility is no further than 1,000 feet from the structure.
   iii. Off-site parking facilities shall be protected by an irrevocable covenant running with the land that is recorded by the County in a form approved by the City Attorney. A certified copy of this document shall be provided to the Zoning Administrator prior to approval or the shared parking agreement.

9. One handicapped parking stall shall be provided for each 50 stalls. Handicapped parking spaces shall be in compliance with the uniform building code and state law.
10. The parking requirement for uses not listed in this subdivision may be established by the city based on the characteristics of the use and available information on parking demand for such use.

d. Loading and unloading requirements shall be in compliance with the following.

1. Any use which the city believes requires the provision of designated spaces for the loading, unloading or parking of trucks or semi-trailers shall provide such spaces and maneuvering area in the number and configuration which shall be deemed necessary in order to prevent interference with the use of the public right-of-way and with vehicles entering onto or exiting from the public right-of-way.

2. Semi-trailer spaces shall be at least 55 feet in length, 10 feet in width and 14 feet in height plus necessary additional maneuvering space.

3. Spaces shall not be located on a street side of any building, or, if so located, shall be provided with screening deemed adequate by the city.

4. Spaces and the associated maneuvering area shall be at least 50 feet from the property line of any property which is zoned for or designated in the comprehensive plan as residential.

5. No trucks shall be parked in areas other than those designed for such purpose on an approved site plan.

6. Delivery and service areas shall be sized in accordance with Minnesota department of transportation WB-60 standards.

e. Business establishments containing drive-up facilities, including restaurants and financial institutions, shall provide a stacking area for vehicles on the site. A minimum of 6 vehicle spaces per lane shall be provided.

   All such spaces shall be entirely on the site and shall be in addition to parking spaces required for the principal use. The vehicle stacking area shall not extend beyond the street right-of-way line and shall be delineated in such a manner that vehicles waiting in line will not interfere with nor obstruct the primary driving, parking and pedestrian facilities on the site.

f. All required parking spaces shall be accessed by adequate maneuvering space. All dead-end parking rows shall contain a turn around area at least 13 feet deep.