

LAKE STREET RECONSTRUCTION: A REVIEW & A LOOK TO THE FUTURE FOR STREET DESIGN IN MINNEAPOLIS

Minneapolis, Minnesota



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Introduction

Lake Street has historically been one of the most important streets in Minneapolis—a street that is a hub of shopping and socializing for the many neighborhoods it serves. Though many sections of the street have long been in decline, recent reinvestment, much of it by Minneapolis’ new immigrant populations, is beginning to bring new life to this potentially great street.

Lake Street has one of the highest bus ridership rates in the city, and it connects a series of nodes and activities that serve adjacent communities. As the County Board has said, the reconstruction of Lake Street—now in the final planning stages—offers an opportunity to link transportation investments to the continued revitalization of Lake Street that only comes around every 50 years. The McKnight Foundation, through its participation in the national Living Cities program, is taking a special interest in the reconstruction because it will be focusing extensive resources on Lake Street in the next few years. Lake Street will then serve as a national model for how to transform a declining retail and commercial corridor into one that is central to the economic and social life of the surrounding neighborhoods

Project for Public Spaces (PPS) and Glatting Jackson were asked by the McKnight Foundation to review the design documents that have been developed for the Lake Street reconstruction project in terms of how the proposals do or do not support community development goals. PPS is a non-profit organization dedicated to creating and sustaining public places that build communities, and has extensive experience with the design of urban streets. PPS has been a leader in training and demonstration projects for a new approach to street and road design that is taking place nationally—called “Context Sensitive Design” (CSD) or “Context Sensitive Solutions” (CSS). Glatting Jackson is a seasoned transportation planning and traffic engineering firm focused on planning and designing livable communities, and has worked on innovative projects across the country.

The assessment began by reviewing the existing configurations proposed for Lake Street, plus two separate transportation analysis reports with traffic and other transportation data. In addition to reviewing project documents, PPS and Glatting Jackson participated in two meetings with the design team. The first meeting was used to gain an understanding of the project and the involved public officials. The second meeting was initially conceived as a meeting with the Mayor and members of the Project Advisory Committee, but instead was used to work further with the local design team, where we presented some initial concepts. A Placemaking Workshop to identify opportunities for Lake Street near Mercado Central was conducted as part of a national program on public markets for the Ford Foundation that PPS is coordinating—about 30 residents and local business representatives participated. While originally planned to help enhance the market, the results of this workshop are useful for the Lake Street reconstruction project as well.

This report summarizes the results of our assessment. It should be noted that this review focuses mainly on what is called the “west segment” (4th Avenue to 22nd Avenue) as opposed to the “east segment” (Snelling Avenue to West River Parkway). On the west

segment of Lake Street, the overall right of way is only 80 feet wide, and has higher traffic levels; on the east segment, the right of way is 100 feet wide, and there does not seem to be much disagreement over the ability to build a narrower, more transit-, bicycle- and pedestrian-friendly street here. This review also addresses the I-35W access study area, which though it encompasses Lake Street, is not part of the scope of the Lake Street reconstruction project. Still, the projects clearly overlap for several blocks and reflect many of the same challenges.

Based on recent decisions by the Lake Street Reconstruction Project Advisory Committee (PAC), it is clear that certain options are more likely to emerge than others. This review, then, is intended to spur discussion and debate among the design team, the PAC, and local policymakers about roadway widths and design options for Lake Street. It is also intended to spur those policymakers in the City of Minneapolis and in Hennepin County to question, challenge, and change the underlying policies which frame projects like Lake Street throughout the city and region.

Finally, it is important to emphasize that road design is now being addressed nationally through the Federal Highway Administration (FHWA)-endorsed Context Sensitive Solutions program, in which Minnesota has been one of five pilot states. CSS was developed to provide guidance to the increasing number of projects like Lake Street in cities and counties around the United States. As noted above, the goal of CSS is to build transportation projects through a collaborative community process—projects that help create lasting value in those communities. CSS emphasizes “design flexibility” rather than adherence to “standards” so that road design can adapt to and reflect surrounding conditions. Lake Street and similar projects are truthfully caught in the middle of this dramatic change in national and state policy.

Vision and Reality for Lake Street

The *Lake Street-Midtown Greenway Corridor Framework Plan*, completed in 1999, articulates a wonderful vision for Lake Street. The *Framework Plan* paints a picture of a vibrant commercial street, connecting neighborhoods and creating places: “The focus of this work is on ‘placemaking and connections’...to provide an environment for both existing neighborhoods and new development opportunities that attach a high value on the public realm. It is about creating places that are unique, identifiable, and memorable.” The report goes on to elaborate extensively about the importance of pedestrians, integrating transit, and creating compact new development that animates the streets: “Successful urban neighborhoods are characterized by an extensive network of sidewalks...The automobile has an enormous impact on urban neighborhoods...it is the sidewalks that makes a city more livable for its residents.”

This vision was reinforced in press releases for the Lake Street reconstruction project released in May and June 2003:

County Commissioner Peter McLaughlin, whose district includes the Lake Street corridor east of I-35W, has been a driving force behind the project. “The goal is a 21st century Lake Street,” he said. “We have a once-in-a-lifetime opportunity to make Lake Street a vibrant and attractive corridor again.”

“We are blessed with a unique corridor that combines Lake Street and the Midtown Greenway—linking all the diverse elements of life in the Twin Cities,” said County Commissioner Gail Dorfman, whose district includes Lake Street west of I-35W. “Whether you are traveling by car, bus, bicycle or on foot, this corridor connects city and suburban residents to the very best of our region.”

—Hennepin County News, May 22, 2003

County Commissioners Gail Dorfman and Peter McLaughlin joined Mayor R.T. Rybak and City Council members Gary Schiff, Dean Zimmerman, Dan Niziolek, Sandy Colvin Roy and Robert Lilligren in calling for the Lake Street project to be planned within a larger framework of economic development, transit and urban design that includes the Midtown Greenway.

They also acknowledged the many challenges that lie ahead.

“All of us involved with the Lake Street project have a lot of hopes for a better corridor riding on this work,” said McLaughlin. “In this process we must create a new dynamic balance among pedestrians, cars, buses and bicyclists, which in reality often compete for space. This is the reason we need to come together as a community—to be smart and visionary about how we best use this important space.”

Mayor Rybak, who recalled the distinctive bustle of Lake Street from his youth, stressed that planners must seek “the Lake Street way of doing this project”—a

plan with the spirit of the people who use Lake Street for everyday business and shopping.

Dorfman requested that the project be extended west from Lyndale Avenue to Dupont Avenue, where previous work that ran east from the city limits, ended. She also stressed the importance of public amenities to the project's success.

“What you do on the other side of the curb is just as vital as the road reconstruction piece,” she said. “The streetscaping is where you make the connection to community.”

—Hennepin County News, June 19, 2003

The Placemaking Workshop held in conjunction with Mercado Central on September 8, 2003, also reinforced the need for a new vision for the public realm. Participants in the workshop felt that sidewalks were too narrow, bus stops inadequate, street crossings dangerous, and “lots of potential” but little space to do anything. In general, traffic was viewed as a threatening influence, especially for seniors and the disabled. Participants recognized that Lake Street serves an important traffic role, but that a better balance needed to be created. (see Appendix A)

Constraints and Opportunities for a Different Approach

Despite the vision of the *Framework Plan*, the reality is that the Lake Street reconstruction project is significantly constrained by four important factors, each of which is discussed in this section of the report. While these are indeed acknowledged constraints for the project, they should also be viewed as opportunities to challenge assumptions and change policy, if not on Lake Street, then for future Lake Streets.

Indeed, while the PAC only recently narrowed the design selection for Lake Street's west segment to two four-lane options, this result may have been inadvertently predetermined long ago, despite the *Framework Plan* vision, the extensive public input, and the best intentions of all involved. This is partially because of the way the project has been defined, but also because of the process that has been used. Consequently, the capacity of the street to nurture businesses, connect neighborhoods, be walkable, be attractive, facilitate transit, create places, etc., is lowered to the point that the vision articulated in the *Framework Plan* cannot be easily met.

Constraint #1: a presumption that no traffic should be diverted to other streets and all future traffic growth should be accommodated on Lake Street (based on a long history of neighborhood objection to changes in traffic distribution)

That neighborhood opposition to deflected traffic was accepted as a given is perhaps understandable. But perhaps even now, a process could be set up to bring city and county leadership and the neighborhoods along in a broader approach and the use of innovative design features, some of which probably still could be applied to the project or to future projects.

The narrow scope of the Lake Street reconstruction project created a situation that limited options. If a transportation plan was done for the entire area that supported the vision of the *Framework Plan*, options other than widening Lake Street could potentially have been considered and traffic issues throughout the area could be addressed in an integrated manner -- including strategies to ameliorate any potential issues on surrounding streets.

The community could have been engaged in a discussion that provided them with additional options—even those that may initially have seemed politically unacceptable—and information about the implications of those alternatives. For example, the nearby one-way streets (26th and 28th Streets) could be two-wayed and traffic-calmed, and other neighborhood streets could also be traffic-calmed, or reopened and traffic-calmed; as a result, connectivity and quality of life would rise. Lake Street could be made into a wonderful shopping- and community-oriented, multi-modal, main street. The result would be that every street in the area would reach its potential and fulfill its rightful role. In short, the vision would be fulfilled, at least from a transportation perspective, which would be a huge benefit.

In contrast, the current process appears to have been primarily focused on moving and accommodating vehicular traffic just on Lake Street. But, even within this constraint—to achieve the *Framework Plan* vision—greater emphasis needs to be placed on other community interests: safe, pedestrian- and transit-friendly streets and places. The ideas developed at the placemaking workshop were consistent with the *Framework Plan* vision of Lake Street, achieving a balance between conventional motor-vehicle interests and more neighborhood-oriented interests. This result fits a pattern that we have noticed in other “Context Sensitive Solution” projects around the country. People can be trusted to achieve a responsible and reasonable balance.

Finally, it should be noted that changing traffic patterns (for example, modifying the one way streets) and adding traffic calming on residential streets can be done relatively cheaply and implemented over time, compared to the total reconstruction of Lake Street. If the Lake Street design is flexible, as we suggest later in this report, then it may be possible to evolve both Lake Street and the neighborhood transportation network in steps. Given construction delays on the street, this may become an issue sooner than later. This approach allows actual traffic conditions to be monitored and street design and management adjusted over time, rather than just relying on hypothetical projections of traffic that may or may not come true.

Constraint #2: a presumption that the I-35 Access Project will be built as planned (based on City Council direction)

The I-35W access study calls for extensive widening of Lake Street, along with the institutionalization of “residential high traffic streets” (including 26th and 28th Streets). The title of the I-35W access study report begins with the word “mitigation,” indicating that the project creates a fundamental problem—namely higher and faster traffic volumes—on and around Lake Street that have to be “mitigated”. Just as importantly, the impacts of the I-35W access project on several blocks of Lake Street are not being addressed in the Lake Street reconstruction project—they are only considered part of the I-35W access project. In reality, anybody walking, cycling, residing or doing business on Lake Street in the future would likely not see a boundary between the two projects.

This project, like Lake Street, had a narrowly defined scope of work and needs to be re-evaluated in the larger context of the transportation network as we discussed above. Moreover, in the future, the City Council should be asked to make decisions about traffic *comprehensively*, not just congestion point by congestion point.

Constraint #3: an expectation that traffic flow/speed will be improved by the project (as defined by conventional engineering criteria)

The constraint begins with the policy framework which shapes the way that transportation decisions are made—focusing on “improving” traffic flow and speed, not only today but in 20 years, based on projections that are, in reality, hypothetical. The end result of this approach is to tip the balance of the reconstruction of Lake Street away from

the community vision and toward a process that is more oriented to the role of the street as a traffic artery.

Policy

There are several underlying policies and procedures that fundamentally frame how traffic design decisions are made, a list of which the design team provided us with (see Appendix B). Three of the most important are:

The Metropolitan Council has classified Lake Street as an ‘A’ Minor Arterial. According to the Regional Transportation Policy Plan, “The emphasis of minor arterials is on mobility as opposed to access in urban areas.” This essentially means that Lake Street is seen as primarily a connector between regional business concentrations for drivers making “medium-to-short” trips and “local and limited-stop transit.” Lake Street’s secondary priority is classified as a place to “access” in itself. The interpretation of this classification works against achieving the *Framework Plan*’s vision for the area.

State-aid roadway designation will be maintained.

The desire to maintain the State Aid designation for Lake Street has policy strings attached to it. For example, a street that has over 15,000 motor vehicles per day is required to be four lanes. There are several streets that have been successfully narrowed to three lanes around the country, and in Minnesota, with between 15,000 and 30,000 motor vehicles per day, as we discuss below. A number of goals and objectives might be better served with a three-lane section, such as: increased safety, reduced speeding, better pedestrian environment, lower construction costs, and so forth.

The State Aid standards also mandate minimum widths for traffic and parking lanes, which are wider than they need be. The standards call for a minimum of 11 feet, preferably 12 feet, for moving lanes, plus “curb reaction distance” of 2-4 feet, and 10 feet for parking lanes.

Furthermore, there are related policies about levels of service or LOS (for motor vehicle users) that inherently mandate the number of through and turn lanes. Free flowing traffic in the peak hour is only one measurement of effectiveness for a street. It ensures that the interests of motor vehicle users take priority over others using the street. A better way to measure effectiveness for urban street is the movement of *people* whether in cars, buses, on foot, or on bicycles.

What is often forgotten is that State Aid standards are not fixed, and that there is a procedure that can be followed to waive or modify these policies and standards. Moreover, given the state of Minnesota’s national involvement as a pilot state in Context Sensitive Design, these policies and standards should be revamped at least for urban streets in the future.

Lake Street is a county road.

Because Lake Street is a county road, the County will determine the project limits, length, and width. While the County should play a lead role in the project, the City of Minneapolis has a responsibility to directly control actions which will have significant, long-term physical, social and economic impacts on its neighborhoods, businesses, residents, tax base, and sustainability.

Traffic Design Assumptions

A second key factor for how the balance is being tipped in favor of auto usage is the use of traffic “forecasts.” In fact, state aid requires the use of 20-year forecasts. As a result, the process and project report began with descriptions of levels of service for motor vehicle users, forecasts of motor vehicle use 22 years from now, and calculations of the levels of service for motor vehicles using those forecasts. The focus on motor vehicle use 22 years from now gives short shrift to today’s issues of safety, revitalization, and multi-modalism.

Although it is conventional engineering practice, projecting future traffic is highly speculative. In this case, the growth rate was computed by taking existing numbers and assuming an annual traffic growth rate of 0.75%. While these projections may or may not come true, the result is planning based on traffic volumes significantly higher than today’s. For example, current volumes at Lake and Chicago are 21,200 today, but are projected to be 25,200 in 2025.

These projections do not seem to correlate with recent history, as traffic numbers on Lake Street have been relatively stable for the past 12 years. For example, volumes at Lake and Chicago were 20,500 in 1990 compared with 21,200 today. At 21st Avenue, volumes in 1990 (19,800) were actually greater than they were in 2002 (18,400).

The process also assumes that traffic volume forecasts represent a fixed constraint for the design of Lake Street. Yet, actions that are taken between now and 2025 will have a profound impact on how many motor vehicles use the street. Indeed, if traffic volumes are projected to be so much higher than current levels, should this not be viewed as a warning for what *could* happen, rather than a mandate to be followed? What, in fact, happens in 2025 when Lake Street reaches capacity and there is no space left to widen it? Why not address this issue now when there is something that can be done about it, when the street and surrounding neighborhoods will already be disrupted for a massive construction project? Why not achieve the vision when there is the opportunity?

If the project goes ahead as proposed, the traffic forecasts will likely become self-fulfilling prophecies. Surrounding neighborhoods will likely become more divided, businesses will be more auto-oriented, and people will drive more. However, if the street were made more walkable, cycle-friendly, business-friendly, transit-oriented, more beautiful, etc., then one would expect more walking, cycling, and transit use, less auto-oriented businesses, and a more connected community. This would also become a self-fulfilling prophecy.

Constraint #4: an existing storefront-to-storefront width of only 80 feet on the west segment of Lake Street

While this is a constraint that cannot be changed, the following section of the report seeks to critique the proposed design features for the project and suggest alternative opportunities and strategies which could be used to achieve the community’s vision for Lake Street. The key to design is flexibility and making very careful decisions about the allocation of space.

The east segment of Lake Street is not only wider, but there is less traffic. Therefore, there is even more flexibility with the design of this section to create a multi-modal street that is attractive, bikeable, walkable, facilitates transit, creates places—and accommodates traffic effectively. Traffic can easily be accommodated, in our view, in one lane in each direction with turning lanes at the intersections.

Proposed Project Design Features

Number of Lanes

While the design team has looked at a range of three- and four-lane options for Lake Street, their traffic analysis showed that the three-lane section had an inadequate level of service during peak hours in 2025. The four-lane scheme has lanes ranging in width from 11 feet to 14 feet, depending on the scheme; the PAC has recently selected four lanes (with turn lanes) as its preference for the west segment.

The problem, of course, is that the more lanes on the roadway, the wider it is, and the less space there is for pedestrians and bicyclists. Currently, Lake Street *is* a four-lane roadway with parking on both sides of the street. Sidewalks are only about 10 feet wide as it is—barely wide enough for street trees and clear walking space of 8 feet for pedestrians. The width of sidewalks and pedestrian proximity to traffic are clearly concerns on Lake Street. To facilitate community development goals, the width of sidewalks should be maximized and on-street parking and/or an “amenity zone” should be provided on both sides of the street to further buffer pedestrians from traffic—and to provide the space necessary for lively pedestrian sidewalks. Even the proposed four-lane sections would not keep things the way they are, as parking would be removed in many locations to widen vehicle lanes and provide turn lanes.

Four-lane roads (without turn lanes) are neither safer, nor necessarily have greater capacity than three-lane roads. In fact, four-lane streets actually encourage speeding as drivers jockey for position and overtake one another—increasing the likelihood of not just accidents, but the serious accidents that occur at higher speeds. The accident rates for Lake Street, which are significantly higher for most of the west segment than for the east segment, illustrate how the inherent problems and safety issues of four-lane streets become exacerbated with increased congestion. Three-lane streets experience lower accident rates in general than do four-lane streets, as they discourage aggressive driver behavior.

Often times four-lane roads (without turn lanes) through urban districts function much like three-lane roads, since the center lanes are frequently tied up by drivers making left turns. This reduces the road's capacity to close to what a three-lane road might carry.

This is not just an issue of four lanes, though: the design team is recommending a five-lane scheme (four lanes plus turn lanes) to further increase car-carrying capacity in the heart of the Lake Street corridor, between Columbus and 10th Avenue. This five-lane scheme cannot be accommodated without removing parking on both sides of the street. The end result: in an area where the city is looking to make a significant investment in the conversion of the massive Sears building, there will be narrow sidewalks and no on-street parking.

Lastly is the width of the lanes themselves. Every inch matters on Lake Street, and to use lane widths of 11 to 14 feet (and even sometimes 16 feet) for moving lanes and 10 feet for parking lanes is simply unnecessary and further pinches pedestrian space. As numerous studies attest, wider lanes tend to encourage higher speeds. AASHTO standards also allow for 10 foot moving lanes in urban areas when space is tight. "Tight" is what Lake Street should be if driver behavior is to be supportive of the *Framework Plan* vision and if there is to be enough room for other needs.

The situation is even worse in the I-35W access study area. The four sections shown have up to seven lanes with overall rights of way of 131 feet, 131 feet, 130 feet, and 119 feet. Proposed sidewalk widths (including the planting space) are only 14 feet wide. Consequently, the total walkable space may be even smaller than today. No lanes were proposed for cyclists, nor any for on-street parking, yet several additional lanes were proposed for motor vehicles.

Although the I-35 W report states that between 60 and 80% of the right of way being purchased is to improve the pedestrian environment, the majority of that right of way will be for a median—not sidewalks. Pedestrians may only take refuge on the tips of these medians as they attempt to cross the proposed seven lanes of traffic. Furthermore, at the two intersections closest to the transit facility at the I-35W crossover, pedestrians will not be allowed to cross Lake Street, despite the median. These medians are mostly for access management, separating motor vehicles moving in opposite directions, and for beautification/landscaping down the middle of the road.

Opportunities

Three-Lane Roadway

The advantages of three-lane streets are substantial, not the least of which are the additional space they free up for bicyclists and pedestrians. On three-lane streets, prudent drivers set the speed and, because there is no passing, drivers do not weave between lanes. Studies have shown dramatic decreases in accident rates when roads have been converted from four lanes (without turn lanes) to three-lanes.

Recent experience has shown that three-lane roads can accommodate the volumes of the west segment of Lake Street. While conventional wisdom regarding three-lane roads' capacities was once closer to the Minnesota State Aid Standards of about 15,000 vehicles per day, there are now working examples of three-lane roads with volumes as high as 30,000 vehicles per day –in excess of both current and predicted maximum volumes in the Lake Street 2025 projections.

For example, in Orlando, Florida, Edgewater Drive was converted from a four to three-lane road. It has average daily traffic volumes (ADT) of 18,681 to 27,684 vehicles per day. After the conversion, accidents and traffic volumes decreased as pedestrian and bicycle use increased substantially. Travel time increased by less than a minute in the densest part of the study area. Moreover, traffic volumes in the surrounding neighborhood actually decreased.

The statistics are impressive:

- Crash rate -34%
- Injury rate -68%
- % of Vehicles @ 36MPH+ reduced from 15.7% to 7.5%
- Traffic volumes -9%
- Neighborhood traffic volumes -4%
- Pedestrian use +23%
- Bicycle use +30%
- Travel time +50 seconds



Edgewater Drive—Orlando, FL

Public concern is typically high during the planning phases of these four- to three-lane conversions, as the public assumes that fewer lanes will lead to massive congestion. They are often quite amazed when this doesn't occur. In Duluth, Minnesota, when 21st Avenue East (ADT is 17,000 vehicles per day) was converted from four lanes to three, the local newspaper editorialized against the project. Later, after a controversial test, the paper changed its mind:

*“When Duluth officials announced they would convert busy 21st Avenue East between London Road and Woodland Avenue from four lanes to two, with a turn lane in the middle, some armchair analysts predicted it wouldn't work. The News-Tribune Opinion page was among them. Well, it works. About everyone agrees—from city traffic officials to neighbors—that the change has eased congestion and reduced drivers' speed making it safer for pedestrians, and it hasn't caused problems in winter.”*¹

In Minnesota, a MNDOT study (Howard Preston, BRW, 1998) found “three-lane roads in Minnesota with ADT's as high as 20,000”. Mr. Preston stated he would convert most four-lane undivided urban roadways with ADT's less than 20,000 vehicles per day ‘in a heartbeat.’”²

Would traffic spillover onto parallel residential streets as a result of a three-lane roadway on Lake Street? While experience on other streets like Edgewater Drive in Orlando has not shown this to be a problem, the question is probably not the right one to ask. The traffic arterial system, which includes one-way directions on 26th and 28th Street, is already skewed in favor of through traffic. The underlying notion here is to “sacrifice” some streets to higher levels of traffic in order to maintain lower levels of traffic on others. This is essentially a suburban notion, where cul de sacs feed onto “collector” roads, which feed onto “arterials,” which carry all the traffic to the highway—a system in which drivers have no choice.

The grid of streets in cities, however, has enormous capacity and gives drivers a choice. An alternative approach to Lake Street would look at making all of the streets in the neighborhood two-way, with 26th and 28th Streets being two- or three-lane, traffic-calmed streets. Where traffic volumes or speeds elevate on residential streets (and this may not even become a problem), additional traffic-calming measures can be instituted to deter speeding, as has been done in cities like West Palm Beach. Since much of the traffic on Lake Street is not traveling the full length of the street, but rather is using smaller segments of it, this larger, two-way network may be especially appropriate.

Lane Widths

Another opportunity to rethink the design of Lake Street is to use narrower lanes. By using lanes as narrow as 10 feet, it is simple arithmetic to see that you would gain up to

¹ Thomas M. Welch, Iowa Department of Transportation, *The Conversion of Four-Lane Undivided Urban Roadways to Three-Lane Facilities*, p. 3.

² Ibid.

six additional feet of space on a three-lane street and eight additional feet on a four-lane street. This space can then be reallocated to pedestrians and bicycles.

Using narrow lanes gives the street much more flexibility. We looked at the impact of establishing a 44-foot street section, which would allow conversion from four lanes to three lanes or vice versa. In the three-lane scheme, there is enough space for three lanes, plus two wide bike lanes. If necessary, three lanes could be converted to four lanes, if bicycles share the curb lanes with vehicles. In both schemes, sidewalks remain at 18 feet, establishing a flexible sidewalk/curb zone, which is described in more detail below. (See Appendix C.)

In the three and four lane sections, lane widths for moving lanes are 10.5 feet, expanding to 11 feet for a center turn lane (three lane section) and 12 feet (a shared lane with bicycles in the four lane section). Parking lanes are seven feet. As this is an urban area, no additional shoulder or curb reaction distance is recommended. Actual conditions in winter will vary, of course, depending on the amount of snow and the way it is removed. However, wider streets have more snow to plow, while wider sidewalks and bike lanes actually provide a place to put the piled or plowed snow.

Transit Facilities

The Lake Street corridor is one of the most heavily used bus corridors in the city. This is a function of both the corridor's centrality and the fact that, as a former streetcar line, its land use is supportive of transit. Moreover, with its burgeoning immigrant population, many residents who use the street don't have cars.

Despite transit's importance, its users are treated as second-class citizens on Lake Street, and their experience is less than pleasant. Buses currently receive no special priority on the street. Typically, buses pulling into the curb in a bus pull-out often get blocked in by cars moving by. This slows operations even when traffic is flowing smoothly. With the current narrow sidewalks, there is barely enough room for a standard bus shelter, much less a shelter large enough to protect waiting passengers from the Minnesota climate. Standard bus pull-outs are not transit facilities, but rather are automobile facilities because they disadvantage transit in favor of automobiles. They also remove valuable sidewalk space and on-street parking.

Lake Street is a major transfer center, which means that the intersection of key routes (for example at Chicago Ave.) experience even larger numbers of people waiting on cramped sidewalks. The situation is also exacerbated by the many security problems at some of these stops.

Projections of increased transit are very low, at only about 1% per year for the next 20 years—despite the transit agency's plan for new service in 2004. Bus service has been revamped to better interface with the Hiawatha light rail line and ultimately the transitway on I-35W. Limited-stop service is being created to speed up bus operations. The transit agency also plans to double transit service in the same 20-year period.

These are the kinds of changes that set the stage for more ambitious transit improvements on Lake Street in the future. Nevertheless, the proposed design features bus stops that will function more or less the way they do today. How is this equitable when the number of daily bus riders is almost the same as the number of daily drivers on the street?

Opportunities

Innovative strategies being undertaken in other cities illustrate a rethinking of how buses can operate on important streets like Lake. Enhanced bus service is being established in cities like San Francisco and Portland, Oregon, which locate bus stops on sidewalk extensions so that buses don't have to pull into the curb (which of course is not always done anyway.) Buses stop in the moving lane briefly, while passengers board from a "nub" which extends to the edge of the parking lane.



Bus bulbout, Mission Street, San Francisco, CA

Passengers gain much more waiting space as a result of the extensions; buses stop for a short period so that traffic is not inconvenienced for long. In Los Angeles, Metro "Rapid" on Wilshire Boulevard has low floor buses (which speeds passenger boarding), specially designed shelters, and the ability for buses to override traffic signals, giving them priority to move through intersections, and reducing delays due to stop and go traffic. This system has resulted in a 25% increase in ridership in the past three years, showing that improved service can dramatically affect ridership levels.

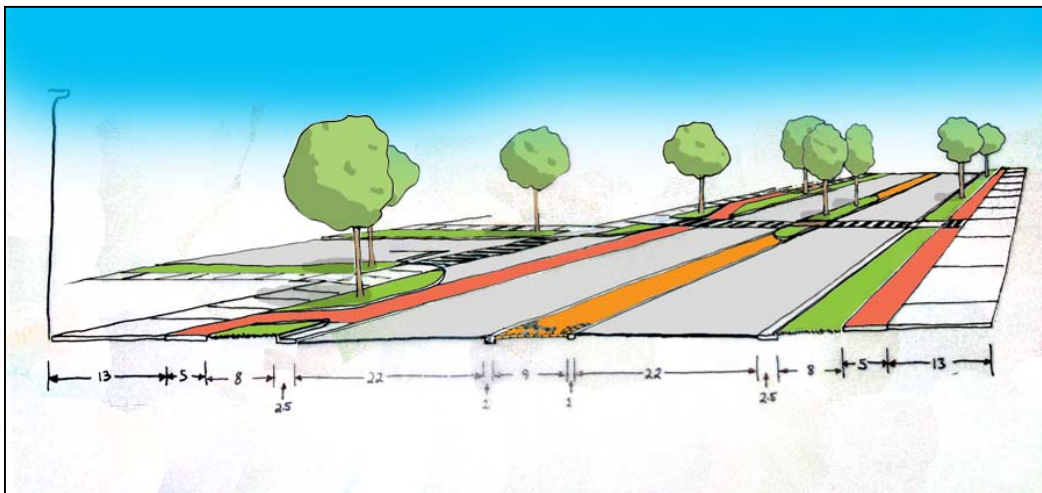
Bicycle Facilities

The Midtown Greenway, now under construction, will radically change the perception of “Midtown” as a bikeable community. While access is an issue, experiences in other cities show that both recreational cyclists, as well as commuters, are attracted to safe, separate bike trails.

As bicycling increases in the neighborhood, people will bike to and on Lake Street to do errands, meet friends, etc. The current thinking of the design team is that a separate bike lane on Lake Street is not needed, in part because of the Greenway. While a 12 foot “share the lane” bicycle facility on Lake Street—which is what is proposed—is workable, it would be preferable to have a separate lane for bicyclists.

Opportunities

Since people will be biking to and on Lake Street, the ideal situation is to have a designated bike lane. However, with the four-lane scheme, there is simply not enough space to make sufficiently wide sidewalks and separate bike lanes. In the east segment of Lake Street, which is 20 feet wider building to building than the west segment, we suggest looking at incorporating the bike lane on the sidewalk level, similar to the mockup in the drawing below. This would expand the sidewalk space as well as make the lane safer for bicyclists.



Protected bike lane diagram for South Boulevard, Charlotte, NC



Protected bike lane, Germany

Pedestrian Facilities: Walking, Amenity, and On-Street Parking Zone

We include a discussion of parking lane and sidewalks together, because they should be thought of as a single, pedestrian-oriented area. Curb-side parking is more than a vehicle function: it provides a physical and psychological buffer between pedestrian and moving traffic. It is also critical to the perception of a neighborhood shopping district as being convenient. While the bulk of parking is off-street, shoppers are ever hopeful of finding an on-street space right in front of their destination. As Lake Street revitalizes and become denser, this kind of parking is going to be even more important.

The design team conducted a parking study that showed that on-street parking was underutilized: during peak hours and highest corridor use periods, parking rates were found to be between 21 and 44%. It should be noted that the study area was for a 1.6 mile stretch of Lake Street between 2nd and 21st Avenues, not all of which currently has high density commercial development. Also, on street parking along Lake Street actually accounts for only 14.7% of the study area; the other 85.3% of parking spaces in the study were along adjacent cross streets. Parking projections for 2025 by which on-street demand is likely to increase were not made.

Nevertheless, based on these parking figures, the design team suggests removing parking from one side of Lake Street (the north side) in one of the four-lane alternatives being considered. Another option removes parking during peak hours using dual purpose, 13-foot wide lanes.

Providing adequate amenity space on a sidewalk is also extremely important to the vitality of a shopping street. This is space that is outside the clear walking space for pedestrians that, on Lake, should be a minimum of eight to 10 feet. Amenity space occurs as a two to three foot window shopping zone in front of retail, allowing for people to stop and browse as well as for outdoor displays. Additional amenity space at the curb for trees and benches can take up a minimum of four-six feet and, for bus stops, vending and cafes, considerably more: eight to 10 feet. A photo montage of Mercado Central, based on the results of the placemaking workshops at Lake Street and Bloomington Avenue, shows the difference a little extra sidewalk space can make.



This montage is useful in two regards. Since the Lake Street Reconstruction project will depend in part on local assessments for streetscape improvements, property owners should clearly be shown how they would benefit from additional amenities. Moreover, the montage reflects the results of a process that can be replicated on diverse sections of Lake Street to get an idea of the types of improvements that will support the community's vision.

Opportunities

The introduction of valley gutters in the cross-section relocates the drainage from the curb to between the parking lane and the moving lane. This simple change allows enormous flexibility in the design of the street. It is possible, with this configuration, to use the parking lane for parking—but it is also possible to *not* have parking and have wider sidewalks. The valley gutter between the parking lane and moving lane allows bulbouts at the ends of the parking rows (on the street corners), bulbouts mid-block, and elongated bulbouts for bus stops or other purposes. Bulbouts can be lengthened or shortened as needed without having to dig up the street to redo gutters.



Valley gutters with bulbouts and parking

In front of places like Mercado Central, these bulbouts could be used for cafes and vending—more important to the businesses and the vitality of the street than a couple of parking spaces. Trees, light poles and other street furniture can be located between parking spaces, freeing up the whole width of the “sidewalk” for pedestrian circulation. Moreover, the design of this space can change over time without rebuilding the entire drainage system for the street.

This configuration also allows for the construction of neck-downs at intersections. These sections of widened sidewalks reduce the distance for pedestrians in crossing the street, create space for amenities, and slow traffic coming into the intersection. With the right configuration, it is possible to have all day, on street parking on both sides of the street.

Conclusion: Addressing the Real Problem

The fundamental problem with the two Lake Street projects discussed above is not the technical material or even the designs themselves. The problem is the values and policies that drive these projects. In order to maximize the potential of neighborhoods, cities need to revisit mobility—and motor vehicle-oriented values and policies. A continued predisposition toward the motor vehicle will not only slow Lake Street’s revitalization, but will continue to hamper the rest of the city, particularly downtown and other older parts of the city.

Upon visiting the city, it is obvious that the balance has been skewed toward the automobile over the last several decades. With the opening of the Hiawatha light rail line and the Midtown Greenway, there is an opportunity to change the transportation design balance in the city. Perhaps the city and county decision makers and their regular advisors can begin this process in the redesign and reconstruction of Lake Street. If not, perhaps the debate can be started so that future projects can be more pro-city, pro-pedestrian projects.

There is a very strong bias toward the automobile throughout the country imbedded in engineering standards and state funding formulas. In our view, the gap between the *Framework Plan* vision for Lake Street and the project’s design begins with the policy framework, which must be strong enough to balance out standards and formulas. Usually a host of steps is needed between the vision and the street project for there to be a good probability of the project contributing to the vision. For example, it is often necessary to develop new and more supportive goals, objectives, and policies for a street project to adequately reflect the vision. Because this approach was not taken on Lake Street, needed changes in the policy framework were never identified early on in the project when the design was still conceptual.

The *Framework Plan* vision for Lake Street is not fully attainable under the current policy framework. In particular, policies that keep the majority of traffic on Lake Street, policies that require design based on long-range traffic forecasts, policies that reflect adherence to state-aid design standards, and policies that give priority to through vehicle trips will work against achieving this vision. These policies must change for Lake Street to become the vital main street it should be.

Potential Next Steps

With a different approach to three basic issues, a different outcome to Lake Street is achievable:

1. Traffic Forecasts

Future volumes are a warning, not a mandate, and with different policies the city and county can institute a multi-modal goal for Lake Street—reflecting the vision developed in the corridor framework plan. By going back to the core vision and establishing a clear policy, the design team and the community can be more creative in developing solutions—both short and long term—which truly contribute to the vision.

2. State Aid Standards

Even with a more multi-modal vision, the best design of the street cannot be achieved under the current state standards. For example, the street sections presented in Appendix C show how it is possible to start with three lanes with a separate bike lane, and change it to four with a shared bike lane, if in 10 years or so the system is not working. (The five-lane sections shown will never work in a balanced way on the street, and should not be considered.) Design exceptions for lane widths and number of lanes, as well as level of service, would have to be sought to implement such a flexible plan.

3. I-35W Project

This project spells double trouble, since it not only affects Lake Street, but the entire neighborhood surrounding the project area. We recommend going back to the drawing board and evaluating an overhaul of the whole traffic network that would eliminate one-way, high speed residential streets and look more critically at how to balance local and regional transportation needs. Just as the *Framework Plan* vision paints a picture for the area, supportive transportation planning should be area wide as well.

With these changes, the Lake Street and I-35W design teams will have the policy framework needed to address the broader picture for Lake Street. This is only a beginning, however. Once the overall space allocation on Lake Street is determined, the real work of creating places can begin. There is tremendous potential for each community along the street—as already has begun to take place—to define the kinds of uses, amenities, and attractions they would like to see on Lake Street at the micro-scale. All of this can be closely aligned with the Living Cities investments so that the new Lake Street which emerges from construction some four years from now truly sets the stage for a revitalized corridor that meets the vision that is articulated in the *Framework Plan*.

Lake Street is transforming itself, almost against all odds, into an amazing center of a new, ethnically diverse Minneapolis. Let its transportation planning be as forward looking as the new immigrant populations it is only beginning to serve.

APPENDICES

Appendix A: Placemaking Workshop Results

**Appendix B: Lake Street Reconstruction and Streetscape Enhancement
Project: Project Baselines**

Appendix C: Alternative Street Sections

Appendix A:

Placemaking Workshop Results

Lake Street/Mercado Central Place Game Notes—September 8th, 2003

Group 1—North side of Lake St. & Bloomington Ave.

Comfort & Image—overall rating of FAIR; Restaurant Guayaquil is in a nice building; nice trees on the sidewalks, and nice benches and wide sidewalks on Bloomington; plenty of people around; sidewalk on Lake is too narrow - has crowded, unsafe feeling

Access & Linkages—overall rating of FAIR; transit access is excellent; signage needs improvement; building (?) needs new tenant

Uses & Activities—overall rating of GOOD; good mix of people; lots of activity—almost unparalleled in the city; increasing economic activity in area

Sociability—overall rating of FAIR; some children, but no older folks; good spot to wait for the bus on Bloomington Ave.; bad spot to wait for the bus on Lake St.; no evidence of volunteerism

What people like best about the place: “lots of potential”; the Bloomington Ave. part of the intersection has wide sidewalks and nice seating; lots of people and good transit access

Low-cost, immediate improvements:

- mural on La Mexicana wall on Bloomington Ave.
- new awnings on buildings
- improve back side of La Mexicana
- general clean-up including trash removal and re-painting of area
- bike racks on Lake St.

Long-term, big impact changes:

- curb bump-outs at corners
- wider sidewalks, especially on Lake St.
- add trees and other plantings
- rehab La Mexicana building
- improved bus stop on Lake St.

Local partnerships and talent that could help implement some of the proposed improvements:

- none identified

Group 2—Southeast corner of Lake St. & Bloomington Ave.—Wells Fargo Bank

Comfort & Image—overall rating of POOR; traffic threatens and narrow sidewalks exacerbate the feeling of danger; “looks dumpy”; benches are mismatched; garbage on sidewalk and street; “needs a warmer image”

Access & Linkages—overall rating of FAIR; poor signage - doesn’t indicate other business in the building; transit access is excellent; needs more well-defined crosswalks; entrances to businesses not obvious; not very accessible area for seniors & disabled

Uses & Activities—overall rating of FAIR; there is lots of activity in the area and it has good economic vitality, but there is little feeling of “community”;

Sociability—overall rating of FAIR; good number of folks in groups; few seniors in area

What people like best about the place: “the bank lends a sense of stability” and security; area provides needed services for businesses and residents; lots of people and good transit access

Low-cost, immediate improvements:

- better defined crosswalks
- awnings on buildings
- install flags/banners on street lamps and/or existing poles
- improve/make more uniform seating
- artwork/sculpture on the wall
- improve landscaping (add planters)
- improve overall cleanliness & maintenance
- information display or kiosk
- bicycle parking

Long-term, big impact changes:

- wider sidewalks
- curb bump-outs
- narrow Lake St. to 3 lanes of traffic
- more windows on the corner (bank) building or cut the corner off the building
- improved bus shelters

Local partnerships and talent that could help implement some of the proposed improvements:

- Wells Fargo could help put up welcoming flags on the side of the building
- Local artist community can help with artwork
- Mercado Central
- Heart of the Beast Theater
- Bloom Lake Business Association

Group 3—Southwest corner of Lake St. and Bloomington Ave.—Mercado Central

Comfort & Image—overall rating of FAIR; the Mercado made a huge step in improving this corner, but there are still no places to sit outside; much better than most of Lake St.

Access & Linkages—overall rating of FAIR; great transit access and walkability; the Mercado needs better exterior signage from the south

Uses & Activities—overall rating of GOOD; good mix of people and variety of uses; only complaint is that area needs more parking; police officer interviewed believed it was unsafe with drug-dealing and prostitution

Sociability—overall rating of FAIR; good range in ages, very sociable inside the Mercado, but not much outside

What people like best about the place: the mercado itself and the diversity of things to do and eat inside; that the area was developed from within the Hispanic community

Low-cost, immediate improvements:

- well-defined crosswalks
- pathway through parking lot to the mercado
- greening of parking lot and streetscape—planters around windows
- add sidewalk café to mercado on Bloomington
- better signage for mercado

Long-term, big impact changes:

- widen sidewalks
- use windows of the mercado better—open them up to the street more
- more parking

Local partnerships and talent that could help implement some of the proposed improvements:

- PPNA and the Powderhorn Garden Club
- Councilmember Schiff's office
- Minnegasco
- NDC
- Center for Neighborhoods

Group 4—South side of Lake St. and 15th Ave.—Me Gusta Place and La Guadalupana

Comfort & Image—overall rating of FAIR; sidewalk very narrow here—feels unsafe; few places to stand let alone sit—no benches; traffic is fast and loud; new building (Me Gusta) makes area more vibrant, but there is little connection to the street; garbage in area; poor lighting

Access & Linkages—overall rating of POOR; except for excellent transit access; banners on lampposts must be for cars—difficult to see from sidewalk; poor signage on Me Gusta; unclear where to enter La Guadalupana—business looks “boarded up”

Uses & Activities—overall rating of FAIR; good economic vitality with restaurant, café and grocery store, but not much activity on the street; car traffic is busy, but few pedestrians; “what would keep you here?”

Sociability—overall rating of FAIR; good number of people in groups, but few kids or seniors; community does clean-up once a year; new building is source of pride

What people like best about the place:

- vibrancy of new building
- lights on new building at pedestrian level
- good mix of stores—good place to shop or eat

Low-cost, immediate improvements:

- stripe crosswalks
- trash patrol
- benches or other seating
- sidewalk café for Me Gusta
- improve signage on new building
- improve signage, “openness” and entryway for La Guadalupana

Long-term, big impact changes:

- wider sidewalks for safety
- bollards/planters to beautify and protect pedestrians
- install a median on Lake St.

Local partnerships and talent that could help implement some of the proposed improvements:

- Phillips CDC
- Local artists
- PPNA
- NDC
- Me Gusta

Group 5—North side of Lake St. and 15th Ave.—HOTB Theater and Kaplan Brothers

Comfort & Image—overall rating of FAIR; feels unsafe and dirty; cars overwhelm; theater is a bright spot, but could use sprucing-up; area needs better lighting

Access & Linkages—overall rating of GOOD; good visibility, signage, and transit access

Uses & Activities—overall rating of GOOD; however, not many pedestrians and big, unused space outside of Kaplan Bros.

Sociability—overall rating of FAIR; much community pride in the theater, but little evidence of sociability; more children than seniors

What people like best about the place:

- good energy and diversity
- opportunity to sit outside Kaplan Bros.
- the theater

Low-cost, immediate improvements:

- trees and plantings by Kaplan Bros.
- add bike racks
- remove billboards
- mural on side of theater
- use space outside of Kaplan somehow—discount racks or food vendor
- garbage cans, and regular clean up and trash collection

Long-term, big impact changes:

- widen sidewalk
- traffic calming—3 lanes on Lake St.
- better lighting

Local partnerships and talent that could help implement some of the proposed improvements:

- NDC
- PPNA
- local artists
- get free plantings from local gardening group
- public schools

Group 6—parking lot behind HOTB and Antiques Minnesota, and Bloomington Ave. to Midtown Greenway

Comfort & Image—overall rating of POOR; unsafe—drug traffic and prostitution; lack of seating due in part to these activities

Access & Linkages—overall rating of FAIR; greenway not visible from a distance; good walkability; good transit access, but bus signage needs improvement; poor street signage

Uses & Activities—overall rating of POOR; illegal activities

Sociability—overall rating of POOR; some evidence of pride and ownership in fixed-up houses;

What people like best about the place:

- trees and other greenery
- the greenway and Bloomington Ave. bridge
- some nice old houses
- arrow graphics on back of Lake St. buildings

Low-cost, immediate improvements:

- striping the parking lot
- better utilize lot for other businesses in area
- put up signs on back of buildings
- signs on 15th Ave.
- trash cans and general area clean up
- new plantings throughout area
- better lighting throughout

Long-term, big impact changes:

- “If they stopped selling drugs, it’d be great.”
- replace windows on chiropractor building
- big marquee on Antiques Minnesota bldg.
- rehab old houses
- semi-circular plaza from N. side of Ant. Minn. Bldg in parking lot
- different paving to connect area/lead to the greenway
- gateway art for entrance to greenway

Local partnerships and talent that could help implement some of the proposed improvements:

- Midtown Greenway Coalition
- BCLCA
- neighborhoods
- Jose Lala (sp?)
- municipal agencies

Appendix B:

Lake Street Reconstruction and Streetscape Enhancement Project:

- Project Baselines
- The Minneapolis Plan, Excerpt from Chapter 4: Marketplaces—Neighborhood
- Transportation Policy Plan Metropolitan Council, Excerpt from Appendix F

LAKE STREET RECONSTRUCTION AND STREETSCAPE ENHANCEMENT PROJECT

Project Baselines

- A. Lake Street is designated a Commercial Corridor in the Minneapolis Plan.
- B. The Metropolitan Council has classified Lake Street as an 'A' Minor Arterial.
- C. Improvements will not exceed existing ROW; 80-feet west of Hiawatha and 100-feet east of Hiawatha.
- D. Project design will accommodate existing traffic and projected traffic through the design year 2025 with an annual growth rate of 0.75 percent.
- E. Project design will accommodate current and future transit through 2025.
- F. No street widening beyond the current curb width will occur and through traffic lanes will not exceed the existing numbers of lanes.
- G. Sidewalk width will not be less than 10-feet.
- H. State-aid roadway designation will be maintained.
- I. Streetscape improvements will be funded through local assessment, and available federal-aid and county sources or private grants if such become available.
- J. Project limits, length and width, will be determined by the County.

In addition, the project's goals and objectives, approved by the PAC should be referenced.

The Minneapolis Plan
Excerpt from Chapter 4: Marketplaces - Neighborhoods

DEFINITION

Identifying Commercial Corridors

Commercial Corridors are designated on the Land Use Policy Map. They are characterized by the following features.

- Streets have high traffic volumes, with a minimum of 10,000 Average Annual Daily Traffic (AADT) and ranging up to a 20,000 AADT count.
- Streets have a mix of uses, with commercial uses dominating. The commercial element typically includes some automobile-service uses, and/or drive-through facilities. Light industrial uses may also be found along these streets. Low density residential is uncommon.
- A mix of uses commonly occurs within some of the structures.
- Buildings that front onto commercial corridors generally retain a traditional urban form in their setting, massing and relationship to the Street. (See discussion of traditional urban form in Chapter).

POLICY STATEMENT

4.3 Minneapolis will support development in Commercial Corridors where it enhances the street's character, improves its ability to accommodate automobile traffic and foster pedestrian movement, and expands the range of goods and services offered.

Commercial Corridors

Street	Designated Area
West Broadway	Mississippi River to 26 th Avenue North
Central Avenue	18 th Avenue NE to 29 th Avenue NE
E. Hennepin Avenue	Mississippi River to I-35W
Franklin Avenue	Mississippi River to I-35W
Lake Street	36 th Avenue South , west to Abbott Avenue South
Excelsior Boulevard	32 nd street to Lake Street
Lagoon Avenue	Dupont Avenue to Humboldt Avenue
Nicollet Avenue	I-94 to Lake Street
Lyndale Avenue	Franklin to Lake Street
Hennepin Avenue	Franklin to Lake Street

Transportation Policy Plan

Metropolitan Council

Excerpt from Appendix F

Minor Arterials

The minor arterial system connects the urban service area to cities and towns inside and outside the region. They interconnect the rural growth centers in the region to one another as well as to similar places just outside the region. They provide supplementary connections between the two metro centers and the regional business concentrations. They connect major generators within the central business districts (CBDs) and the regional business concentrations.

The emphasis of minor arterials is on mobility as opposed to access in the urban area; only concentration of commercial or industrial land uses should have direct access to them. The minor arterial should connect to principal arterials, other minor arterials and collectors. Connection to some local streets is acceptable. Minor arterials should service medium-to-short trips. Both local and limited-stop transit will use minor arterials.

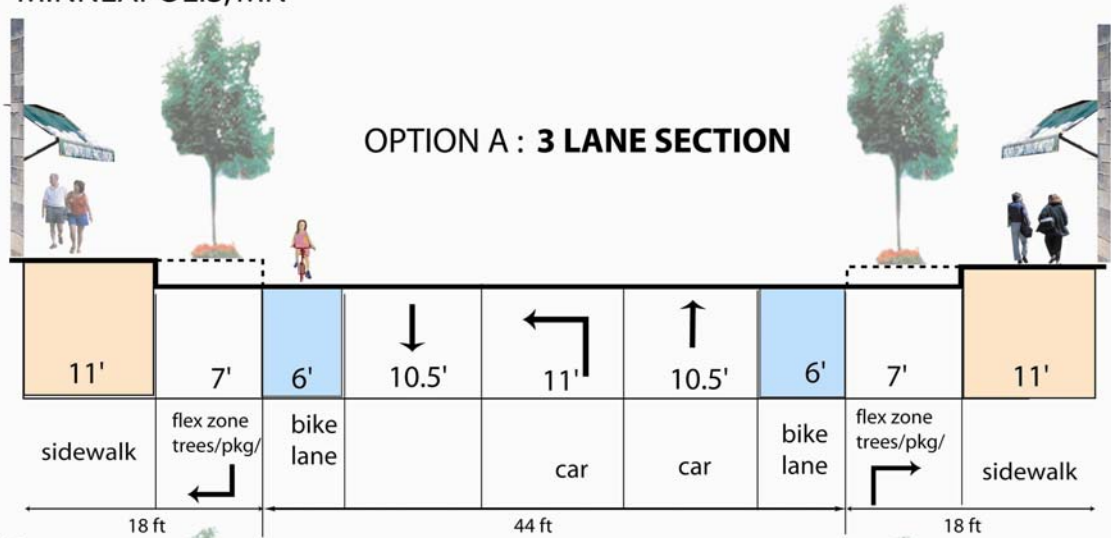
The spacing of minor arterials in the metro centers and regional business concentrations will vary from one-fourth to three-fourths mile. Typically, in the fully developed area, spacing would range from one-half mile to one mile. In the developing area, a one-to-two mile space is adequate. (The region has subdivided minor arterials into two classes for administrative purposes. 'A' minor arterials are eligible to compete for federal funding.)

Appendix C:

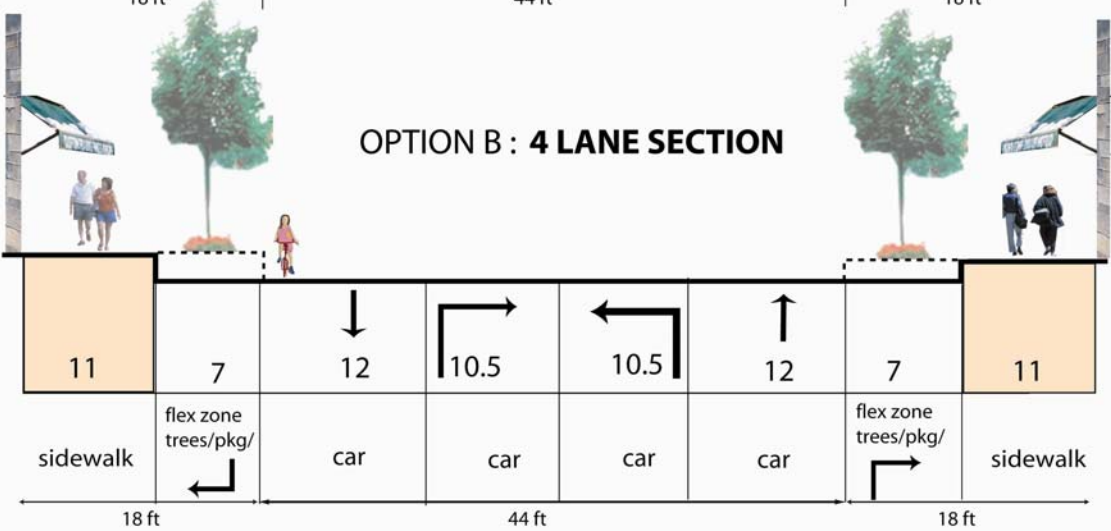
Alternative Street Sections

LAKE STREET ALTERNATIVES
MINNEAPOLIS, MN

OPTION A : 3 LANE SECTION



OPTION B : 4 LANE SECTION



OPTION C : 5 LANE SECTION

