St. Louis Park Comprehensive Plan

Health Impact Assessment

November 2011

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INTRODUCTION

In 2010, the Minnesota Department of Health (MDH) received a grant from the Association of State and Territorial Health Officials (ASTHO) and the Centers for Disease Control and Prevention (CDC) to support and conduct Health Impact Assessments (HIAs). (See sidebar for a description of HIAs.)

As part of the grant requirements and in collaboration with the City of St. Louis Park (SLP), MDH proceeded to prepare a desktop HIA on the City's Comprehensive Plan. Performing a desktop HIA provides an assessment and recommendations on the comprehensive plan that ensures that public health is considered within the plan.

Comprehensive plans influence future planning decisions and can have a significant impact on the built environment. Comprehensive plans influence zoning policy and other important policies that can support the public's health and encourage healthy behavior. Thus, ensuring that the comprehensive plan includes policies that support health can potentially improve residents' health.

The following sections summarize the HIA process and the results of the process. It is hoped that the recommendations that emerged from the HIA will be incorporated into updates of SLP's Comprehensive Plan other planning initiatives and that these changes will eventually lead to improving the public's health.

HEALTH IMPACT ASSESSMENTS

Health impact assessment (HIA) is commonly defined as "a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population" (1999 Gothenburg consensus statement).

HIAs can be effective in promoting health and well-being in decision making. The Centers for Disease Control and Prevention (CDC) states, "HIA can provide recommendations to increase positive health outcomes and minimize adverse health outcomes. The HIA framework is used to bring potential public health impacts and considerations to the decision-making process for plans, projects, and policies that fall outside of traditional public health arenas, such as transportation and land use."

HIA has been successful in Europe, Canada, and the US in improving community health. Much of the success of HIAs is due to the use of evidence-based recommendations, which help strengthen its effectiveness and adaptability. Another benefit of HIAs is involving communities and vulnerable groups in decision-making processes. HIAs can serve as a tool to communities as it can help highlight certain health issues and outline specific recommendations.

MDH recognizes the emerging importance of HIA on the health of all Minnesotans and is continuing to practice this method within its various departments. MDH has conducted several HIA trainings for local and state public health, other state agency personnel and public officials. MDH continues to build state capacity for utilizing HIA in Minnesota through increasing awareness, trainings and aiding implementation of HIA.

HEALTH INDICATORS

In March of 2011, MDH staff met with SLP staff to determine the health categories that should be assessed for the HIA. The meeting attendees discussed many health issues related to the plan. Eventually, the group decided to use Design for Health's Comprehensive Plan Review Checklist to determine the health issues to be explored in the HIA. Design for Health developed the tool in 2007 to match health issues with plan elements associated with the local comprehensive plan requirements overseen by the Metropolitan Council. (The Metropolitan Council reviews all local comprehensive plans in the seven-county metropolitan area.) Design for Health's Comprehensive Plan Checklist is comprised of over 100 health indictors and was deemed as providing a thorough review of the SLP's Comprehensive Plan. (A health indicator is used to measure or assess a particular health issue.)

Not all 100 health indicators were reviewed. Design for Health categorized the indicators under two types of categories: essential for health or good for health. The essential for health indicators were chosen as a means to evaluate the comprehensive plan. Each indicator served as a mechanism to determine public health recommendations for consideration when updating the comprehensive plan.

The following health indicators were selected to evaluate SLP's Comprehensive Plan:

Health Indicator #1. Is there a tree planting/tree canopy plan?

Health Indicator #2. Are there policies that require that all developments have views of greenery for mental health benefits?

Health Indicator #3. Are all existing and planned residential areas located within 600 meters (preferably 400 meters) of playing areas and parks?

Health Indicator #4. Is the off-street trail system planned to serve all residential areas, preferably with 400-600 meters of all residential areas?

Health Indicator #5. Is adequate lighting required in parks so that pedestrians on paths can see other pedestrians at least 200 meters away?

Health Indicator #6. Are there plans or policies to provide adequate street lighting along all major streets?

Health Indicator #7. Are there plans to ensure that there are supermarkets/fruit and vegetable stores located throughout the municipality?

Health Indicator #8. Does planning policy for redevelopment include evaluation of lead-bearing substances in exposed surfaces of dwelling units, child care facilities, schools, or recreation facilities used by children?

Health Indicator #9. Are at least 50% of residential units affordable to persons at or below the median household income, and/or is there at least a 20% ownership and 20% rental unit housing mix in a neighborhood or census tract?

Health Indicator #10. Are polluting sources regulated locally as well as by state and federal governments (evaluating businesses that disproportionately pollute within neighborhoods like dry cleaners, automotive paint shops, manufacturing)?

Health Indicator #11. Are there existing or planned transit stops for all residential areas?

Health Indicator #12. Is there a multimodal transportation plan that connects all residential areas to services (i.e., employment centers, grocery stores, hospitals, etc.)?

Health Indicator #13. Are all residential areas planned for an average of 4 (preferably 7) units per gross acre?

Health Indicator #14. Are all residential areas, schools, day care facilities, playgrounds and sports fields required to be more than at least 200 meters from a major road?

Health Indicator #15. Are there existing or planned vegetated buffers along all water bodies (preferably 20 meters to 50 meters) to prevent non-point pollution from impervious surfaces?

Health Indicator #16. Are complete streets incorporated into the future land use plan?

Health Indicator #17. For pedestrian/bicyclist safety, are speed limits set at or below 35 mph (optimally 20 mph) for 70-90% of streets?

Health Indicator #18. Are industrial parks and roads located away from (down gradient or side gradient) from well areas?

Health Indicator #19. Does the transportation plan incorporate neighborhood commercial and/or mixed-used development to encourage transportation related walking?

Health Indicator #20. Is residential and commercial density discussed in this chapter to encourage walking, bicycling and transit?

Health Indicator #1. Is there a tree planting/tree canopy plan?

Defining the Indicator:
Preserving a healthy tree canopy can serve a number of public health benefits. For instance, trees provide shade during hot days, reduce heat island effects, improve air quality, improve livability, provide mental health benefits (See Health Indicator #2 for a description), and serve as a refuge for wildlife. Also, trees help improve water quality by slowing down the rate of water entering the stormwater system during heavy rainstorm events. Trees capture water in their leaves and release water slowly, lessening the burden on the local stormwater system. Trees remove carbon dioxide from the air and store carbon as cellulose in their trunk, branches, leaves and roots while releasing oxygen back into the air. Trees have been shown to improve the aesthetic character of an area and enhance property value.

Despite the many benefits of trees, it has become more difficult in recent years to preserve a healthy tree canopy. Invasive species (e.g., Emerald ash borer) and diseases (e.g., Dutch elm disease) that have been introduced to the region have played a significant role in the reduction of trees, severely impacting local tree canopies. New developments also have played a role in clear-cutting established trees, if they were not valued as part of a site's design.

The purpose of this health indicator is to ensure that the community recognizes the importance of a healthy tree canopy by implementing programs and policies that support the maintenance, preservation and plantings of trees.

Findings:
The comprehensive plan recognizes the importance of preserving, maintaining and planting trees throughout the community. The following strategies, programs and policies are listed within the plan:

- Land Use Plan (Page IV-B21) – Goal 1, Strategy H: Enhance the program of tree planting and boulevard landscaping along all streets.
- Land Use Plan (Page IV-B22) – Goal 2, Strategy E: Continue to enforce parking lot standards that address surfacing, light standards, tree canopy, and solar radiation reduction.
- Parks, Open Space & Natural Resources (Page VI-A3) – Statement: The City has implemented a park dedication program and tree preservation program that provides financial resources to support park redevelopment and tree planting.
- Parks, Open Space & Natural Resources (Page VI-A15) – Statement: This section highlights the City's tree maintenance, planting and replacement program.
- Parks, Open Space & Natural Resources (Page VI-A22) – Goal 9, Strategy A: Continue boulevard tree planting and replacement program.

- The City is participating in the Emerald Ash Bore First Detector Response System.

Recommendations for Considerations:

- Review the City's Zoning Ordinance to determine if the appropriate design standards support the maintenance, preservation and plantings of trees.

Health Indicator #2. Are there policies that require that all developments have views of greenery for mental health benefits?

Defining the Indicator:
Offering views of greenery can help reduce stress levels and provide a connection to nature. A number of studies have shown a connection between nature and people's mental and physical health. Roger Ulrich, a professor at Texas A&M University, in a seminal and oft-cited 1984 study, found that patients who had a view of trees out the window of their hospital room needed less medication and recovered more quickly from surgery than patients without a view. Since that study, research has mounted showing a positive overall effect of "nature." Simply viewing trees can provide mental restorative benefits. Experiencing nature by visiting gardens, forests and parks provides healing benefits as well. A large population-based study in Sweden reported people who visited open green spaces had less stress than those who didn't visit green spaces or visited them less often. Another study showed that residents of neighborhoods with extensive green space enjoyed better health than neighborhoods without green space. Research shows that people have a more positive outlook and higher life satisfaction when in proximity to nature. Exposure to natural environments enhances the ability to cope with and recover from stress and observing nature can restore concentration and improve productivity.

Providing trees, green spaces and view sheds of greenery may be challenging in the built environment, considering building heights, existing infrastructure and manmade barriers. However, communities can implement design standards, regulate building heights and preserve areas for green space to improve the public's health and mental wellbeing.

The purpose of this health indicator is to determine if the plan recognizes opportunities to preserve trees, view sheds and green spaces for public health benefits.

Findings:
The comprehensive plan incorporates a number of components that will assist in achieving the identified health indicator. However, the comprehensive plan does not directly link these components to mental health or other public health benefits. The following strategies, programs and policies are listed within the plan:

- Land Use Plan (Page IV-B24) – Goal 13: Encourage and support beautification of public streetscapes for the general welfare of adjacent property owners, residents, and all types of users of the streets, including the minimizing of negative aesthetic impacts.
- Economic Development & Redevelopment (Page IV-C8) – Sustainable "Green" Redevelopment: The City is committed to being a leader in environmental stewardship and sustainable design.

- Parks, Open Space & Natural Resources (Page VI-A19) – Goal 1: Preserve an integrated and balanced system of park and open spaces:
    - A: Neighborhood parks to provide park and open space close to residential development.
    - F: Environmental areas such as the Westwood Hills Nature Center, providing places for people to exercise in nature.
- Parks, Open Space & Natural Resources (Page VI-A20) – Goals 3, Strategy A: Ensure park dedication or a park dedication fee is collected for all new developments where possible.
- Parks, Open Space & Natural Resources (Page VI-A22) – Goal 9, Strategy A: Continue tree planting and replacement program.

Recommendations for Consideration:

- Incorporate language or strategies in the Comprehensive Plan that recognize the importance of views of greenery for mental health benefits.
- Review the City's Zoning Ordinance to determine if building height restrictions take into account view sheds.

Health Indicator #3. Are all existing and planned residential areas located within 600 meters (preferably 400 meters) of playing areas and parks?

Health Indicator #4. Is the off-street trail system planned to serve all residential areas, preferably with 400-600 meters of all residential areas?

Defining the Indicator(s):
The built environment can have an effect on whether or not members of the community chose to be physically active. Providing parks, play areas, sidewalks and trails throughout the community can help encourage healthier lifestyles through physical activity. Benefits associated with regular physical activity include the reduction in heart disease, diabetes and other chronic diseases.

In May of 2010, Blue Cross Blue Shield, in collaboration with the Minnesota Department of Health, released a report titled: "Physical Activity and Healthy Eating in Minnesota: Addressing Root Causes of Obesity." The report captured findings from the 2007 Minnesota Physical Activity Survey and the 2008 Minnesota Healthy Eating Survey. The surveys measured the prevalence of obesity in Minnesotans age 18 and older, as well as their physical inactivity, eating habits and lifestyles. Key findings from the report that address Minnesotan's physical activity include the following:

- Minnesotans pay a high price for obesity-related diseases.
    - In 2005, more than 73,000 Minnesotans were hospitalized for heart disease and stroke and more than 10,000 Minnesotans died from heart disease and stroke combined.
    - An estimated 375,000 Minnesotans currently live with diabetes, while another 1.1 million have prediabetes.
    - In 2008, total U.S. obesity-related medical spending reached $147 billion.
- Overweight and obesity is increasingly prevalent nationally and in Minnesota.
    - One-third (34 percent) of adults age 20 and older in the United States are obese.
    - Two-thirds (68 percent) of people in the United States are overweight or obese.
- Overweight and obesity can be prevented through physical activity and healthy eating.
- The majority of adult Minnesotans are either overweight or obese.
    - Twenty-three percent of adult Minnesotans are obese. That means an estimated 834,000 Minnesotans face increased risk of chronic conditions related to obesity.
    - Thirty-eight percent of adult Minnesotans are overweight.
- Almost 10 percent of Minnesotans are very or extremely obese.

Findings:
The health indicators were chosen to determine the proximity of planned residential uses to parks, schools and trails. It was assumed these amenities would provide the opportunities necessary to encourage physical activity. The analysis used a 400 meter and 600 meter buffer around each amenity to determine if they were serving a residential use. The analysis also took into consideration manmade barriers that would make it difficult for a resident to cross in order to access a park or school. Barriers included Highway 7, 100, 169 and County Road 25. If a buffer crossed one of those barriers, the residential uses were not included in the findings below.

- St. Louis Park offers 52 parks that cover over 790 acres of recreational opportunities:
    - Ninety percent of planned residential uses are within 400 meters of an existing park
      (See Figure 1).
    - Ninety-eight percent of planned residential uses are within 600 meters of an existing park
      (See Figure 2).
    - Ninety-three percent of planned residential uses are within 400 meters of an existing park and school (See Figure 3).
    - Ninety-eight percent of planned residential uses are within 600 meters of an existing park and school (See Figure 4).

- The analysis showed that approximately 95% of planned residential uses are within 400 meters of an existing trail. A hundred percent of planned residential uses are within 600 meters of an existing trail. This assessment did not take into consideration access points to the trails. However, it is assumed the existing sidewalk network would provide a number of opportunities to safely access the trail system.

The following language can be found in the Comprehensive Plan, which supports the development and integration of parks within proximity to residential uses:

- Bicycle & Pedestrians (Page V-C14) – Goal 1, Strategy 5: Improve walking and biking connections to schools and parks.
- Parks, Open Space & Natural Resources (Page VI-A19) – Goal 1: Preserve an integrated and balanced system of parks and open spaces:
    - A: Neighborhood parks to provide park and open space close to residential development.
    - H. Regional and local trails.
        - Strategy C: Involve neighborhoods and the community to help shape park facilities and the use of open spaces within the community.

- Parks, Open Space & Natural Resources (Page VI-A20) – Goal 3: Seek permanent and reliable funding sources for parkland acquisition, capital improvements.
- Parks, Open Space & Natural Resources (Page VI-A20) – Goal 5: Integrate the trail system through and between parks and open space within the City.

Recommendations for Consideration:

- Utilize the "Physical Activity and Healthy Eating in Minnesota" report as a guide to assist in local planning and policy decisions that address healthier lifestyles.

Health Indicator #5. Is adequate lighting required in parks so that pedestrians on paths can see other pedestrians at least 200 meters away?

Health Indicator #6. Are there plans or policies to provide adequate street lighting along all major streets?

Defining the Indicator(s):
According to the International CPTED Association, lighting for reducing crime and improving security is a logical and natural evolution of the well-known field called Crime Prevention Through Environmental Design (CPTED). CPTED is a multi-disciplinary approach to creating environments that helps reduce criminal activity through design techniques. Integrating lighting into public spaces and along sidewalks provide pedestrians the opportunity to see others in the distance during night-time hours. Providing this type of visibility is important to a pedestrian's safety and perceived safety. Adequate lighting allows pedestrians to see others at a distance of at least 200 meters away.

Adequate lighting along roadways also creates a safer environment between the pedestrian/bicyclist and automobile. Lighting near crosswalks and intersections provides visibility during the night-time hours, allowing a driver to see if a pedestrian is crossing which minimizes potential conflicts between the users.

Findings:
The comprehensive plan does not addresses adequate lighting in parks for safety measures. However, the plan embraces a number of design measures that incorporate lighting into public spaces. Those measures include the following:

- Land Use Plan (Page IV-B21) - Goal 1: Provide attractive public streets and spaces that contribute to creating connections and a sense of community.
    - Strategy A: Establish unique and cohesive street character for major community streets, such as Cedar Lake Road, Minnetonka Boulevard, Excelsior Boulevard, and Louisiana Avenue, emphasizing pedestrian connections and safety, landscaping, decorative lighting, and street furniture for the use and enjoyment of the public.
    - Strategy G - Continue to use decorative outdoor lighting for illumination of streets, parking lots, and other public and private areas.

- It is also important to note the City's Zoning Codes does provide outdoor recreational lighting requirements under Landscaping Section 36-3633.

Recommendations for Consideration:

- Consider adding language or policy statements that discuss Crime Prevention through Environmental Design (CPTED).
- Create a plan to implement adequate lighting on all corridors where pedestrian use is expected, especially after dark.

Health Indicator #7. Are there plans to ensure that there are supermarkets/fruit and vegetable stores located throughout the municipality?

Defining the Indicator:
In May of 2010, Blue Cross Blue Shield, in collaboration with the Minnesota Department of Health, released a report titled: "Physical Activity and Healthy Eating in Minnesota: Addressing Root Causes of Obesity." The report captured findings from the 2007 Minnesota Physical Activity Survey and the 2008 Minnesota Healthy Eating Survey. The surveys measured the prevalence of obesity in Minnesotans age 18 and older, as well as their physical inactivity, eating habits and lifestyles. Key findings from the report that address Minnesotan's eating habits include the following:

- Minnesotans are willing to use diet and activity to achieve a healthy weight.
    - Sixty-nine percent of obese adult Minnesotans understand that their current weight raises their risk for future health problems.
    - Twenty-nine percent of over-weight individuals believe they face this increased risk.
- Most Minnesotans do not eat enough fruits and vegetables.
    - Eight-five percent of adult Minnesotans fail to eat enough fruits and vegetables to meet the daily recommendations for their age and gender.
    - On average, adult Minnesotans eat 2.7 cups of fruits and vegetables per day. An additional 1.8 cups of fruits or vegetables would need to be eaten each day to meet the 4.5-cup average recommended.
- Minnesotans regularly consume nutrient-poor, energy dense foods and beverages.
    - Seventy-three percent of Senior Minnesotans are more likely to eat pastries and sweets than younger adults (52 percent) and middle-aged adults (60 percent)
    - Nearly half (41 percent) of adult Minnesotans drink sugar-sweetened beverages.
    - Twenty-three percent of adult Minnesotans eat fried snack foods.
    - Sixty-six percent of respondents, representing about 2.5 million adult Minnesotans reported eating fast food meals during the week.
- Most Minnesotans have poor access to fruits and vegetables at work.
- Rural and low-income Minnesotans have poorer access to fruits and vegetables than urban and wealthier Minnesotans.

Providing access to healthy food sources is essential in promoting healthy diets and lifestyles. Dispersing supermarkets/fruit and vegetable stores throughout the community is challenging considering existing land use patterns and the market to support such uses. It is especially challenging to promote healthier lifestyles when the choice falls on the individual. Educating and promoting healthier diets will hopefully encourage residents to make better decisions.

Findings:

- The plan does not address the location of supermarkets/fruit and vegetable stores throughout the community. However, existing supermarkets are located within the community. In fact, 97% of residential parcels are located within 1,600 meters (1 mile) of a grocery store that provide healthy foods including fresh fruits and vegetables (See Figure 5).
- The comprehensive plan does not recognize existing city programs like the "Farmer's Market on the Plaza" that offers locally grown products.
- The plan embraces a public health component that recognizes the importance of food licensing and inspection.
- The Land Use Plan could accommodate commercial uses that would support new supermarkets through redevelopment initiatives or infill.

Recommendations for Consideration:

- Utilize the "Physical Activity and Healthy Eating in Minnesota" report as a guide to assist in local planning and policy decisions that address healthier lifestyles.

Health Indicator #8. Does planning policy for redevelopment include evaluation of lead-bearing substances in exposed surfaces of dwelling units, child care facilities, schools, or recreation facilities used by children?

Lead poisoning remains one of the most common environmental health threats to children, and can lead to learning difficulties, reduced IQ and behavior problems. Deteriorated lead paint in homes is the primary source of lead exposure for children. Lead paint is most often found in homes built before 1950, but may also be found in any home built before 1978, the year lead paint was banned for residential use. Children less than six years old, especially ages one to three years old, are most vulnerable to lead's toxicity due to their growing bodies, nutritional needs, mouthing behavior, and the amount of time they spend on the floor. Also, pregnant women and the developing fetus are at risk because lead easily passes through the placenta to the fetus, and the changing nutritional needs of the mother causes release of lead stored in bone. Recognizing and treating lead poisoning can be difficult, and symptoms often don't occur until children enter school. For this reason, primary prevention, or preventing lead poisoning before it starts, is crucial.

Findings:

- The Environmental Stewardship Chapter addresses lead and identifies vulnerable populations (e.g., Women of child-bearing age and children under the age of six).
- The City is pursuing an active role in informing the public about the risks and abatement methods for dealing with lead in the environment.
- The City has initiated a "Get the Lead Out" initiative that promotes the use of lead-free fishing tackle.
- Beginning August 1, 2011, the City of St. Louis Park will require all licensed Residential Building Contractors, Residential Remodelers, Manufacture Home Installers, and Residential Roofers to provide proof of certification in lead-based paint poisoning prevention prior to obtaining permits for renovation work in residential properties constructed prior to 1978.

Recommendations for Consideration:

- There are no recommendations for consideration.

Health Indicator #9. Are at least 50% of residential units affordable to persons at or below the median household income, and/or is there at least a 20% ownership and 20% rental unit housing mix in a neighborhood or census tract?

Defining the Indicator:
Affordable and varied housing options are important to the fabric of any community. Housing options should meet the needs of all its community members, regardless of age, lifestyle and income level. By providing a range of housing types at mixed levels of affordability, all members of a community may have the opportunity to experience housing security. Housing security, and especially housing tenure, strengthen communities and build strong relations with neighbors by encouraging longer-term residents to invest in not only their homes, but all facets of the neighborhood. Consequently, dispersing a mix of housing options throughout the community can help foster relationships between different social groups. These relationships are important in building social capital and social cohesion. The Design for Health HIA Threshold Analysis identifies social capital (measured by trust, political participation, neighborhood familiarity, etc.) as an indicator of health in itself.

Conversely, living in a community with high concentrations of affordable housing can cluster poverty, which in turn can result in lower social capital and unsafe neighborhoods. To prevent concentrated poverty, neighborhoods should provide a mix of affordability levels and housing options (rental and ownership). The exact mix of affordable housing will vary by location, but should reflect the demand for affordable units and apply a reasonable distribution among all neighborhoods.

Findings:
For this indicator, the assessment looked at the total market rate value for each existing home and

Affordable Housing

The Metropolitan Council has established a number of benchmarks and goals for the region to meet its affordable housing needs. The Metropolitan Council describes affordable housing as the following [1]:

- Affordable housing is essential for stable families, vibrant neighborhoods, a strong economy and a healthy region. Housing is affordable when a family with a moderate or low income pays no more than 30-40% of its monthly income for housing.
- Increasingly, housing is not affordable for many Twin Cities area working families. This lack of affordable housing for people of all ages and incomes causes families stress, dampens productivity and stifles job growth.
- The Metropolitan Council recognizes that durable and well-maintained housing is important to a community's tax base, livability and business climate, as well as to the health of the region as a whole. The Council creates affordable housing opportunities in the region through several programs and initiatives.

1 - Source: Information pulled from the Metropolitan Council's Affordable Housing Fact Sheet, dated January 2011.

compared it to the average median income level for the seven-county metropolitan area.

- Fourteen percent of owner occupied units are considered affordable at 60% of the area median income ($50,400): Affordable home price - $179,100 (See Figure 6 & Table 1)
- Sixty-three percent of owner occupied units are considered affordable at 80% of the area median income ($64,400): Affordable home price - $233,100 (See Figure 7 & Table 1)

The following language can be found in the Comprehensive Plan, which supports affordable housing units:

- Land Use Plan (Page IV-B23) - Goal 9: Create a mix of residential land uses and housing types to increase neighborhood housing choices and the viability of greater neighborhood services through redevelopment or infill development.
- Housing Plan (Page IV-D11) – Statement: Recognizes affordable housing programs (i.e., Habitat for Humanity Partnership Program, Housing Land Trust Affordable Homeownership and Live Where you Work Homeownership Program).
- Housing Plan (Page IV-D13) – Statement: St. Louis Park is considered an affordable place to live according the Metropolitan Council's "Determining Affordable Housing Needs in the Twin Cities 2011-2020" report.
- Housing Plan (Page IV-D16) – Goal 3, Strategy A: Develop matrix of existing housing types including detached/attached, owner/rental, family/senior; and affordable/market rate with production goals for each. Use this matrix as a guide to evaluate future housing development proposals.
- Housing Plan (Page IV-D17) – Goal 6: The ratio of owner/rental housing should be approximately 60% owner-occupied and 40% rental.
- Housing Plan (Page IV-D17) – Affordable, Workforce and Supportive Housing Goals 8 and 9.
    - Goal 8: Promote and facilitate a mix of housing types, prices and rents that maintains a balance of affordable housing for low and moderate income households. Future affordability goals negotiated with Metropolitan Council should reflect the average percentages of other first ring suburbs in Hennepin County.
    - Goal 9: Mixed income units should be disbursed throughout the City and not concentrated in any one area of the City of any one development.

Recommendations for Consideration:

- Continue to work with the Metropolitan Council to achieve the community's affordable housing goals.

Health Indicator #10. Are polluting sources regulated locally as well as by state and federal governments (evaluating businesses that disproportionately pollute within neighborhoods like dry cleaners, automotive paint shops, manufacturing)?

Defining the Indicator:
Past and current land uses can pose significant health risks to nearby populations depending on the type of operations, chemicals, and waste removal and remediation activities on a site. Recent Environmental Protection Agency (EPA) regulations have improved the safety of chemical use, emissions, and waste disposal but contaminants often still accumulate. Some of the worst offenders include manufacturing activities like fertilizers, pesticides, textiles and leather goods. Additionally, smaller operations like dry cleaners and automotive shops that use harsh chemicals and petroleum products can pollute properties. Exposure to harmful chemicals from these and other uses can cause severe health effects. A 2000 Environmental Health Perspectives article reported some of the health problems associated with exposure; these included certain types of cancer, skin irritation, low birth weight, birth defects, fatigue, sleepiness, and headaches.

The Minnesota Pollution Control Agency (MPCA) maintains a list of all potentially hazardous sites in the state. Some sites are found to be polluted enough to trigger involvement in the U.S. EPA Superfund program. The Superfund program identifies the worst polluted sites and ensures that environmental remediation is fast-tracked to protect the health of surrounding communities.

The health indicator is intended to evaluate the location of polluting sources throughout the community and assess their proximity to neighborhoods. The assessment phase did not provide enough time to conduct a thorough investigation. Instead, the health indicator was viewed from a comprehensive planning perspective. In addition to mapping the location of four types of Minnesota Pollution Control Agency (MPCA) sites (Superfund Projects, Voluntary Investigation and Cleanup, Multiple Activities, and Tank sites)(See Figure 8), the assessment looked at how the comprehensive plan addresses incompatible land uses that may have a negative impact on an adjacent use. The assessment also looked at how the community was mitigating potential areas of concern.

Findings:

- The vast majority of contaminated and potentially contaminated sites are located in commercial and industrial districts.

The following language can be found in the Comprehensive Plan, which supports the regulation of polluting sources:

- Land Use Plan (Page IV-B13) – The Land Use Sustainability and Compatibly section recognizes the challenges a site may face when (re)developing from an environmental and pollution standpoint.
- Environmental Stewardship (Page VII-A7) - Contaminated Sites: the City acknowledges the presence of contaminated sites. Most notably Reilly Tar/Republic Creosote and National Lead – both Superfund sites. Developers are aware of other contaminated sites throughout the city. Responsibility for contaminated sites falls on the City's Environmental Health Division within the Inspections Department.
- Public Health (Page VII-B4) – The plan recognizes state and federal agencies that monitor and regulate and/or treat environmental pollution (e.g., Minnesota Pollution Control Agency, Minnesota Department of Health, the Minnesota Department of Public Safety, the U.S. Environmental Protection Agency and the Hennepin Conservation District).
- Public Health (Page VII-B4, B5) – A list of polluted sites in St. Louis Park are listed. The City is currently working to remediate environmental contamination from these sites.

Recommendations for Consideration:

- Continue to assess the appropriate programs and regulatory tools that protect residents and neighborhoods from polluting sources.
- Remain diligent with public awareness and environmental remediation programs for all known potentially polluted sites.

Health Indicator #11. Are there existing or planned transit stops for all residential areas?

Health Indicator #12. Is there a multimodal transportation plan that connects all residential areas to services (i.e., employment centers, grocery stores, hospitals, etc.)?

Defining the Indicator(s):
The automobile continues to be a primary mode of transportation for Minnesotans. This dependency has posed a number of environmental and health concerns. For instance, the American Society of Civil Engineers (ASCE) Report Card for America's Infrastructure (2009) noted that in 2007, 41,059 people were killed in motor vehicle crashes and 2,491,000 were injured. In turn, motor vehicle crashes cost the U.S. $230 billion per year, which equates to $819 for each resident in medical costs, lost productivity, travel delays, workplace costs, insurance costs, and legal costs.

The automobile has also posed a number challenges to the roadway network. The ASCE Report Card reported that 76% of Minnesota's major urban highways are congested and the number of vehicles traveled on Minnesota's highways increased 47% from 1990 to 2007. This pressure has necessitated the use of Transportation Demand Management (TDM) strategies to ensure the efficient use of transportation resources through improvements to the existing congested system. TDM strategies include improved transport options like car-sharing, light rail transit (LRT), and non-motorized planning.

A multimodal transportation community provides a number of different options for people to move throughout the community and to other parts of the region. A multimodal transportation system includes not only transit services, but other modes of travel such as walking, biking and even driving. Each mode needs to be balanced appropriately to ensure the safety, mobility and access of all users.

Transit provides options to those who cannot drive because of financial reasons, health concerns, age or disabilities. Transit options enable access to services that are critical for the health of individuals and a community. Access to healthy foods, like fresh fruits and vegetables, reduces the risk of health problems, such as obesity, diabetes, hypertension, and arthritis. Access to quality employment with health care and medical insurance enables people to afford preventative care and provides paid sick leave which helps them recover faster and reduces contamination of others.

The Design for Health HIA Threshold Analysis recommends transit stations within 1,200 meters of all commercial and residential destinations to attract the widest trip-shed based on the maximum distance transit riders will walk from station to destination. The SLP HIA looked at planned residential and commercial uses within 400 meters of an existing transit stop to capture the greatest transit accessibility.

Planned transit stops included in the analysis where three proposed stations for the Southwest LRT project. The three stops will service Beltline Boulevard just north of Bass Lake, Wooddale Avenue just south of Highway 7 and Louisiana Avenue north of Methodist Hospital. The development of the LRT may have an impact on existing bus routes once it is operational. Existing bus routes may change to ensure efficient coordination with LRT services. However, it can be safely assumed that access to services like employment centers, grocery stores, and hospitals will improve.

Findings:

- Eighty-three percent of planned residential uses are within 400 meters of an existing transit stop (See Figure 9).
- Ninety-nine percent of planned commercial/industrial uses are within 400 meters of an existing transit stop (See Figure 9).

The following language can be found in the Comprehensive Plan, which supports transit stops near residential uses:

- Land Use Plan (Page IV-B22), Goal 4, Strategy C: Encourage and support integrating the provision of community travel routes, including non-automobile connections, into large community commercial developments, as well as safe and convenient connections from surrounding neighborhoods.
- Land Use Plan (Page IV-B23), Goal 6, Strategy B: Encourage convenient pedestrian access to and within the neighborhood commercial nodes from adjacent neighborhoods and transit stops.
- Land Use Plan (Page IV-B23), Goal 8, Strategy B: Encourage and support new business park developments that are designed as employment centers that are integrated into the community with strong connections to adjacent public streets and spaces, natural features, transit, and other community amenities.
- Land Use Plan (Page IV-B24), Goal 9, Strategy C: Ensure that new and redeveloped medium and high density residential land uses are located within walking distance of transit services.
- Land Use Plan (Page IV-B24), Goal 12, Strategy B: Provide sidewalks or trails where pedestrian traffic is expected.
- Land Use Plan (Page IV-B25), Goal 15: Pursue redevelopment of future transitway station areas as transit-oriented mixed-use centers.
- Economic Development & Redevelopment (Page IV-C13), Goal 4, Strategy D: Encourage projects that incorporate Livable Communities and Transit Oriented Development planning principles.
- Highway & Streets (Page V-A25): Supports Travel Demand Management (TDM) strategies and has identified a TDM District as part of its Zoning Code (article IV. Zoning Districts; division 10. Travel Demand Management District; section 36)

- Highway & Streets (Page V-A32), Goal 2: Provide well-designed and well-maintained community streets that balance the needs of all users, residents, businesses, and property owners.
- Transit (Page V-B7), Goal 1: Support and promote transit service and facilities that maximize services to the community.
- Transit (Page V-B7), Goal 2: Promote increased use of transit, through support of a multimodal system including buses, light rail, local circulators, and access via sidewalk and trails.
- Transit (Page V-B7), Goal 3: Provide comfortable, safe and accessible transit stops for pedestrians along transit lines including bicycle parking, benches and shelters where warranted and feasible.

Recommendations:

- Create a policy and implementation plan to ensure that all communities have sidewalks, especially connecting residential areas to neighborhood commercial and transit centers.
- Improve connections to the regional bike trail network by expanding on-street bike lanes throughout the city.
- Advocate on behalf of residential areas and neighborhoods that do not have adequate transit service. Service provision is generally determined by population density. Infill development and redevelopment that increases residential and commercial density will promote transit service to underserved areas.

Health Indicator #13. Are all residential areas planned for an average of 4 (preferably 7) units per gross acre?

Defining the Indicator:
Density promotes affordability, housing options for different lifestyles, and population thresholds for transit and supportive services, which can lead to increased walking and reduced urban sprawl.

A range of density options can allow (re)development to occur in a manner that supports multiple housing options. A variety of housing developments provide residents the ability to age in place and select housing options that meet their changing lifestyles. These types of housing options include affordable homes for different income levels, rental units, senior housing, assisted living, mixed-use developments and single-family dwellings. Different types of housing options should be encouraged and integrated throughout the community to enhance relationships between different age groups, lifestyles and income levels.

The Design for Health HIA Threshold Analysis suggests that "4 units per acre is the absolute minimum required for hourly transit service to be feasible." However, residential density at an average of "7 units per gross acre is a preferred alternative." Therefore with sufficient housing densities, regular transit service may be provided. In recent studies, the American Public Transportation Association found that users of public transportation walk more than those who do not use public transit, regardless of income, and consequently tend to be healthier. Additionally, supportive services like neighborhood retail may develop as a result of higher residential densities. Services within walking distance encourage non-motorized trips, which in turn promotes fitness and improved air quality.

Findings:

- Land Use Plan (Page IV-B14 – B15): Future residential uses are planned for an average of 4 units per gross acre.

Planned Land Use	Minimum	Maximum
Low Density Residential	3	7
Medium Density Residential	6	30
High Density Residential	20	75
Mixed Use *	20	75

* The mixed use designation is intended to capture 75 to 85 percent of the building for residential use and 20 to 25 percent for commercial or office use.

- Land Use Plan (Page IV-B24), Goal 9, Strategy B: Promote and support the development of medium and high density residential land uses near commercial centers and nodes.
- Land Use Plan (Page IV-B24), Goal 9, Strategy C: Ensure that new and redeveloped medium and high density residential land uses are located within walking distance of transit services.
- Housing Plan (Page IV-D18), Goal 14: Explore and, if appropriate, promote ordinances to allow development of non-traditional housing types and increased density in single family neighborhood that is compatible with surrounding neighborhood.
- Housing Plan (Page IV-D18), Goal 15, Strategy C: Educate residents about land use issues, especially those involving increased density in single-family neighborhoods.

Recommendations for Consideration:

- There are no recommendations for consideration.

Health Indicator #14. Are all residential areas, schools, day care facilities, playgrounds and sports fields required to be more than at least 200 meters from a major road?

Defining the Indicator:
Proximity of residential areas, schools, day care facilities, playgrounds and sports fields to major roads poses three main health threats: air pollution, noise pollution, and personal safety related to potential vehicular accidents. Vehicles release a number of unhealthy air pollutants such as carbon monoxide, ozone, particulate matter, and sulfur dioxide. These air pollutants adversely affect the quality of the air and consequently the health of the people exposed to them. Health impacts from poor air quality include lung cancer, cardiovascular disease, asthma and other respiratory problems. Continued exposure can reduce the quality of life and even lead to premature death.

In addition to air pollutants, traffic emits noise pollution. On major roads, traffic noise can have harmful health effects. According to Design for Health, these effects include hearing impairment and loss, interference with speech communication, disturbance of rest and sleep, as well as the potential for physiological, mental-health, and performance effects. Additionally, UCLA's HIA Clearinghouse (www.hiaguide.org) found that "low-level but chronic noise of moderate traffic can stress children and raise their blood pressure, heart rates and levels of stress hormones."

Residential areas, schools, day care facilities, playgrounds and sports fields are the primary locations for active people, especially children. The potential for vehicular accidents with children playing adjacent to major roads or crossing major roads is significant. Policies that establish minimum set-backs and barriers to major roads can help protect people from air pollution, noise pollution and vehicular accidents.

Findings:
- No policy statements**.**

Recommendations for Consideration:
- Create a policy that requires buffering major roads from all future sensitive and incompatible uses by at least 200 meters.
- For existing residential areas, schools, day care facilities, playgrounds and sports fields within 200 meters of a major road, promote the development of "sound barriers" or aesthetic barriers. Such barriers as trees, shrubs, and sometimes walls can provide protection from noise pollution, air pollution, and direct contact with vehicles.

Health Indicator #15. Are there existing or planned vegetated buffers along all water bodies (preferably 20 meters to 50 meters) to prevent non-point pollution from impervious surfaces?

Defining the Indicator:
Vegetative buffers can prevent pollution of surface and groundwater by managing the volume of stormwater runoff, improving water quality, and recharging groundwater aquifers. Runoff from impervious surfaces often contains contaminants that can degrade water quality and potentially impact ecological and human health. Care should be taken to ensure that stormwater runoff does not directly infiltrate into the recharge area of a groundwater aquifer that is used for drinking water.

A number of site design measures may be applied to a development to protect water bodies and groundwater, in addition to managing stormwater. This approach is commonly referred to as Low Impact Development (LID) (See sidebar for a description.).

Site design measures are not typically addressed in the comprehensive plan. However, it is important to recognize the benefits of low impact design to ensure that development is balanced with the natural environment.

Findings:

- In 2001, the City adopted a Surface Water Management Plan (SWMP). The plan was updated in May of 2009. The plan provides guidance in protecting, preserving and managing water resources within the community for the time period of 2009-2018.
- The SWMP provides goals and polices for wetland protection and restoration.
- Parks, Open Space & Natural Resources (Page VI-A21) – Goal 6, Strategy B: Using Best Management Practices (BMP's), buffer lakes, ponds, wetlands and streams with native grasses and other ecologically

Low Impact Development

According to the U.S. Environmental Protection Agecty (EPA), LID is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions. LID has been characterized as a sustainable stormwater practice by the Water Environment Research Foundation and others.

Source: Environmental Protection Agency (EPA) – www.epa.gov/owow/NPS/lid/

appropriate plant species. Where possible, use buffers on public lands as demonstration projects to encourage residents, business owners, and developers to emulate best practices.

Recommendations for Consideration:

- Continue to assess the appropriate programs and regulatory tools that protect water bodies and groundwater from polluting sources.

Health Indicator #16. Are complete streets incorporated into the future land use plan?

Health Indicator #17. For pedestrian/bicyclist safety, are speed limits set at or below 35 mph (optimally 20 mph) for 70-90% of streets?

Defining the Indicator(s):
On May 15, 2010, the Governor of Minnesota signed the Minnesota Complete Streets Law. The law defines a complete street as:

> "Complete streets" is the planning, scoping, design, implementation, operation, and maintenance of roads in order to reasonably address the safety and accessibility needs of users of all ages and abilities. Complete streets considers the needs of motorists, pedestrians, transit users and vehicles, bicyclists, and commercial and emergency vehicles moving along and across roads, intersections, and crossings in a manner that is sensitive to the local context and recognizes that the needs vary in urban, suburban, and rural settings.

The law establishes a complete streets policy for the State of Minnesota, in addition to providing design flexibility for state-aid roadway projects.

Complete streets invite multimodal transit users to share a transportation corridor in a manner that ensures the safety of pedestrians and bicyclists as well as automobiles. Traffic calming techniques can be used to implement the Complete Streets policy. Traffic calming is a popular concept for ensuring the safety of pedestrians and bicyclists. Traffic calming uses a variety of techniques to slow automotive traffic, which increases the safety for other users. The Victoria Transport Policy Institute provides a list of traffic calming techniques which include: sidewalk bump-outs that both slow traffic by narrowing the street and provide shorter distances for pedestrians to cross from one sidewalk to

Traffic Calming

According to the Federal Highway Administrator (FHWA), the general objectives of traffic calming include:

- To encourage citizen involvement in the traffic calming process by incorporating the preferences and requirements of the citizens
- To reduce vehicular speeds
- To promote safe and pleasant conditions for motorists, bicyclists, pedestrians, and residents
- To improve the environment and livability of neighborhood streets
- To improve real and perceived safety for non-motorized users of the streets
- To discourage use of residential streets by non-citizens cutting through

another; speed bumps; roundabouts; narrowed lanes; and enforcement of speed reduction. Successfully calming traffic will reduce the number of accidents and improve both the actual and perceived safety of all users.

Findings:
The comprehensive plan recognizes and supports complete streets in the following ways:

- Land Use Plan (Page IV-B21) – Goal 1, Strategy C: Incorporate "complete streets" design principles into future improvements of the community's streets to accommodate all transportation modes where feasible.
- Highway & Streets (Page V-A25): Complete Streets is recognized as a holistic approach to the transportation system to include all modes of transportation into future roadway improvements.
- Highway & Streets (Page V-A32) – Goal 2, Strategy A: Create a network of complete streets that are designed for all users, including drivers, public transit riders, bicyclists, and pedestrians, as well as people with differing physical abilities.
- Highway & Streets (Page V-A32) – Goal 3, Strategy E: Support implementation of Hennepin County's Complete Streets Policy to retrofit County arterial streets within St. Louis Park into complete streets.
- Bicycles & Pedestrians (Page V-C13) – Goal 2, Strategy A: Prepare and consider a Complete Streets resolution and policy. (Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.)

Recommendations for Consideration:
- Adopt a local complete streets policy.

Health Indicator #18. Are industrial parks and roads located away from (down gradient or side gradient) from well areas?

Defining the Indicator:
Leaks and spills of chemicals associated with industrial parks and roads have the potential to contaminate groundwater aquifers used to supply drinking water. Depending on the local geology, chemicals may move from the land surface down through the soil and pass into the water in the aquifer. Minnesota's Wellhead Protection program assists local governments to develop plans to manage land use within the area where activities on the land surface could impact groundwater aquifers.

Findings:

- In 2001, the City adopted a Surface Water Management Plan (SWMP). The plan was updated in May of 2009. The plan provides guidance in protecting, preserving and managing water resources within the community for the time period of 2009-2018.

Recommendations for Consideration:

- There are no recommendations for consideration

Health Indicator #19. Does the transportation plan incorporate neighborhood commercial and/or mixed-used development to encourage transportation related walking?

Health Indicator #20. Is residential and commercial density discussed in this chapter to encourage walking, bicycling and transit?

Defining the Indicator(s):
Density and proximity of housing and neighborhood commercial services have an impact on the use of alternative modes of transportation, namely walking, bicycling and public transit. A 2010 American Public Transportation Association report found significant health benefits related to transit-oriented development and walkable communities. If quality infrastructure for pedestrians, bicyclists, and transit riders is provided, then people are more likely to walk, bike and take transit to their destinations. Benefits as a result of increased activity by walking, bicycling or transit ridership included better physical and mental health, reduced vehicular accidents and injuries, and lower air pollution levels.

Transit-oriented development is more than just the transit infrastructure; equally important is the housing and commercial density. Density feeds neighborhood commercial density and vice versa. A neighborhood needs both the origin (house) and destination (store) in a high enough density to support each other. Higher density and close proximity from houses to stores promote walking and bicycling. Health Indicators #19 and #20 ensure that more than just sidewalks, bike paths and buses are provided to create the opportunities for the health benefits from walking, bicycling and transit.

Findings:

- Land Use Plan (Page IV-B22), Goal 4, Strategy C: Encourage and support integrating the provision of community travel routes, including non-automobile connections, into large community commercial developments, as well as safe and convenient connections from surrounding neighborhoods.
- Land Use Plan (Page IV-B23), Goal 6, Strategy A: Encourage infill and redevelopment in neighborhood commercial nodes that is neighborhood scale in terms of building size, architecture, and orientation to the street.
- Land Use Plan (Page IV-B23), Goal 8, Strategy B: Encourage and support new business park developments that are designed as employment centers that are integrated into the community with strong connections to adjacent public streets and spaces, natural features, transit, and other community amenities.
- Land Use Plan (Page IV-B24), Goal 9, Strategy C: Ensure that new and redeveloped medium and high density residential land uses are located within walking distance of transit services.
- Land Use Plan (Page IV-B25), Goals 15 & 16: Promote mixed-use development for transit-oriented, livable and connected communities.

- Economic Development and Redevelopment (IV-C13), Goal 4, Strategy D: Encourage projects that incorporate Livable Communities and Transit Oriented Development planning principles.

Recommendations for Consideration:

- There are no recommendations for consideration

RECOMMENDATION SUMMARY

MDH recognizes the attention that was given to the comprehensive plan in regards to public health. SLP is one of the very few communities in the seven-county metropolitan area to include a public health chapter. Overall, the comprehensive plan has embraced public health throughout its respected chapters.

After reviewing the 20 health indicators, MDH encourages SLP to consider the following recommendations into the City's Comprehensive Plan or apply the report's findings to other planning initiatives. Implementing these recommendations ensures that SLP is planning for many important aspects of health. The recommendations have been summarized into three categories: Physical Activity and Access to Healthy Foods; Personal Health and Safety; and, Neighborhood/Community Health.

Physical Activity and Access to Healthy Foods

- Utilize the "Physical Activity and Healthy Eating in Minnesota" report as a guide to assist in local planning and policy decisions that address healthier lifestyles.
- Create a policy and implementation plan to ensure that all communities have sidewalks, especially connecting residential areas to neighborhood commercial and transit centers.
- Improve connections to the regional bike trail network by expanding on-street bike lanes throughout the city.
- Advocate on behalf of residential areas and neighborhoods that do not have adequate transit service. Service provision is generally determined by population density. Infill development and redevelopment that increases residential and commercial density will promote transit service to underserved areas.

Personal Health and Safety

- Review the City's Zoning Ordinance to determine if the appropriate design standards support the maintenance, preservation and plantings of trees.
- Incorporate language or strategies in the Comprehensive Plan that recognize the importance of views of greenery for mental health benefits.
- Review the City's Zoning Ordinance to determine if building height restrictions take into account view sheds. Consider adding language or policy statements that discuss Crime Prevention through Environmental Design (CPTED).
- Create a plan to implement adequate lighting on all corridors where pedestrian use is expected, especially after dark.
- Create a policy that requires buffering major roads from all future sensitive and incompatible uses by at least 200 meters.
- Adopt a local complete streets policy.
- For existing residential areas, schools, day care facilities, playgrounds and sports fields within 200 meters of a major road, promote the development of

"sound barriers" or aesthetic barriers. Such barriers as trees, shrubs, and sometimes walls can provide protection from noise pollution, air pollution, and direct contact with vehicles.

Neighborhood/Community Health

- Continue to work with the Metropolitan Council to achieve the community's affordable housing goals.
- Continue to assess the appropriate programs and regulatory tools that protect residents and neighborhoods from polluting sources.
- Remain diligent with public awareness and environmental remediation programs for all known potentially polluted sites.
- Continue to assess the appropriate programs and regulatory tools that protect water bodies and groundwater from polluting sources.

Reporting and Evaluation

The final recommendations are intended to serve as a foundation in meeting the public health issues and concerns identified through the HIA process. The recommendations should be considered by parties, agencies and organizations that have a role in meeting the needs of the community. More importantly, the recommendations should be considered by the City when pursuing future planning initiatives, in addition to any future updates to the Comprehensive Plan.

The HIA was distributed to SLP staff for their consideration. The project was well-received by SLP. It was viewed as a fresh and new perspective on how the City was addressing a number of elements in the comprehensive plan. SLP staff felt the indicators that utilized Geographical Information Systems (GIS) provided the most value to the report. GIS allowed MDH to evaluate data in a quantitative manner and to provide visual maps of the community. For instance, MDH was able to map the number of affordable homes within the community by neighborhood districts. This exercise had not been completed before and was something SLP Housing staff had wanted in the past.

The report was also presented to the Planning Commission on August 17, 2011. The report was adopted by the Planning Commission as a planning tool for consideration when updating the comprehensive plan. Adopting the HIA recommendations will be a positive step in helping influence the planning process so that it incorporates public health considerations.

Monitoring

MDH will continue to collaborate with SLP to monitor and asses the recommendations as they are implemented. MDH will continue to serve as a resource to SLP as they address public health concerns.

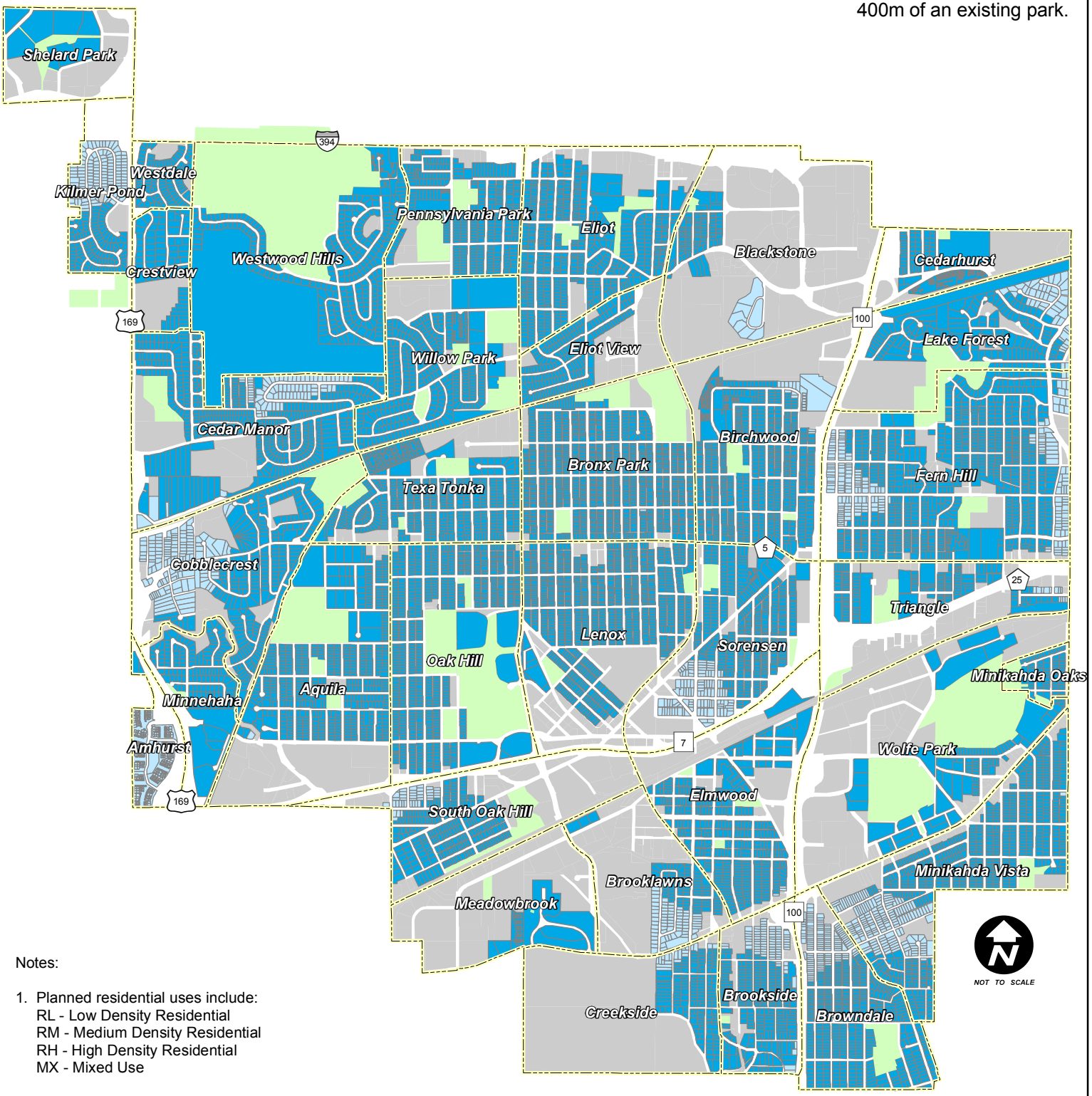
FIGURES AND TABLES

Physical Activity

Health Indicator

Are all planned residential areas located within 600m (preferably 400m) of playing areas, parks, and trails?

90% of planned residential uses are within 400m of an existing park.



Notes:

1. Planned residential uses include:
   RL - Low Density Residential
   RM - Medium Density Residential
   RH - High Density Residential
   MX - Mixed Use

2. A 400m buffer was applied to the city owned parks to determine if planned residential uses were within proximity to a park.

3. The buffer took into consideration transportation barriers. It was assumed residents would not cross Highway 7, 100, 169, CR 25 or Interstate 394 to access a local park.

4. 3,145.50 acres are guided for residential uses. 2,831.12 acres are within 400m of a park.

Legend

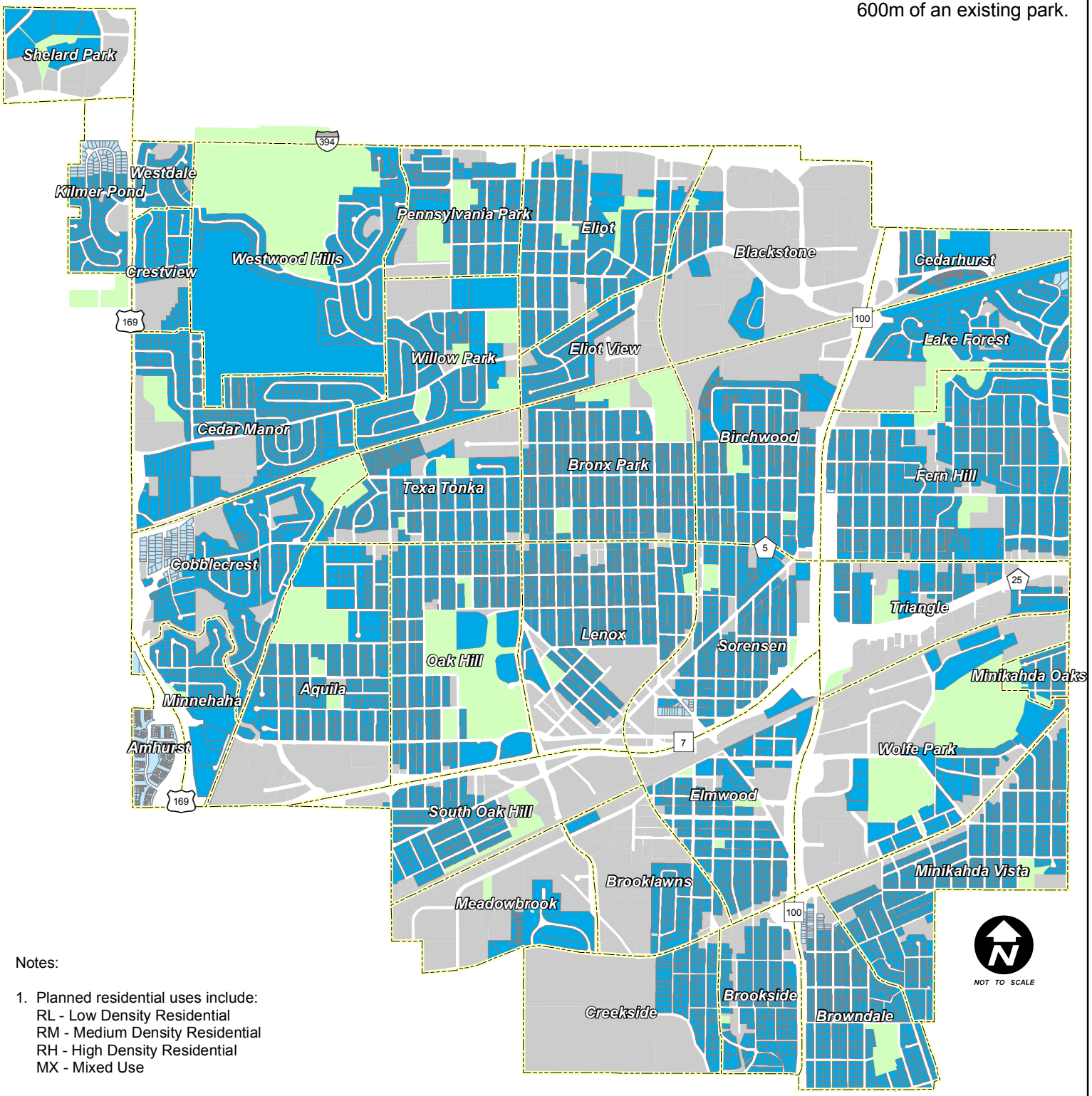
- Neighborhood Districts
- Parks
- Planned residential uses within 400m of a park
- Planned residential uses not within 400m of a park
- Non-residential uses

Physical Activity

Health Indicator

Are all planned residential areas located within 600m (preferably 400m) of playing areas, parks, and trails?

98% of planned residential uses are within 600m of an existing park.



Notes:

1. Planned residential uses include:
   RL - Low Density Residential
   RM - Medium Density Residential
   RH - High Density Residential
   MX - Mixed Use

2. A 600m buffer was applied to the city owned parks to determine if planned residential uses were within proximity to a park.

3. The buffer took into consideration transportation barriers. It was assumed residents would not cross Highway 7, 100, 169, CR 25 or Interstate 394 to access a local park.

4. 3,145.50 acres are guided for residential uses. 3,077.03 acres are within 600m of a park.

Legend

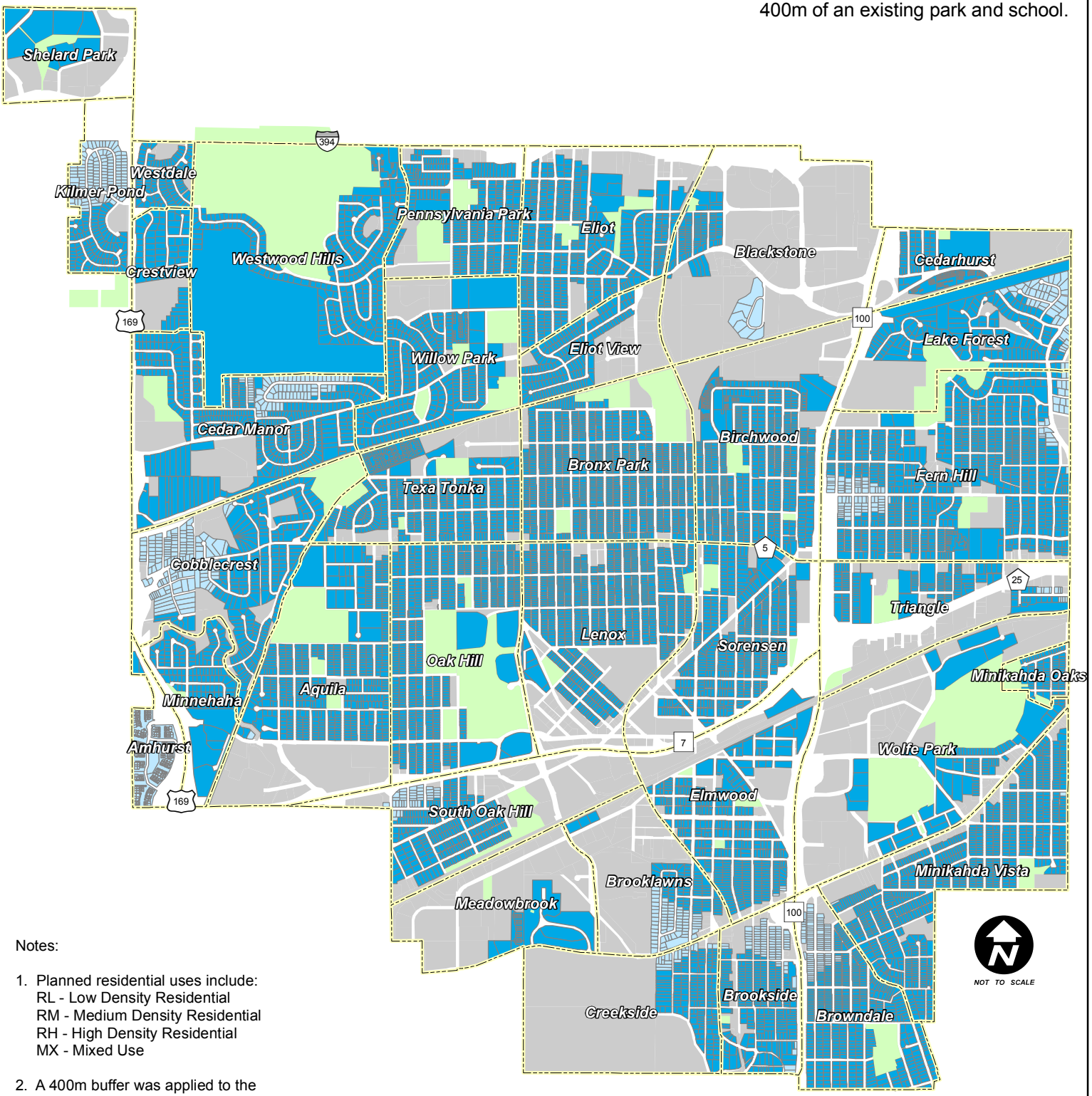
- Neighborhood Districts
- Parks
- Planned residential uses within 600m of a park
- Planned residential uses not within 600m of a park
- Non-residential uses

Physical Activity

Health Indicator

Are all planned residential areas located within 600m (preferably 400m) of playing areas, parks, and trails?

93% of planned residential uses are within 400m of an existing park and school.



Notes:

1. Planned residential uses include:
   RL - Low Density Residential
   RM - Medium Density Residential
   RH - High Density Residential
   MX - Mixed Use

2. A 400m buffer was applied to the city owned parks and schools to determine if planned residential uses were within proximity to a park.

3. The buffer took into consideration transportation barriers. It was assumed residents would not cross Highway 7, 100, 169, CR 25 or Interstate 394 to access a local park.

4. 3,145.50 acres are guided for residential uses. 2925.85 acres are within 400m of a park and school.

Legend

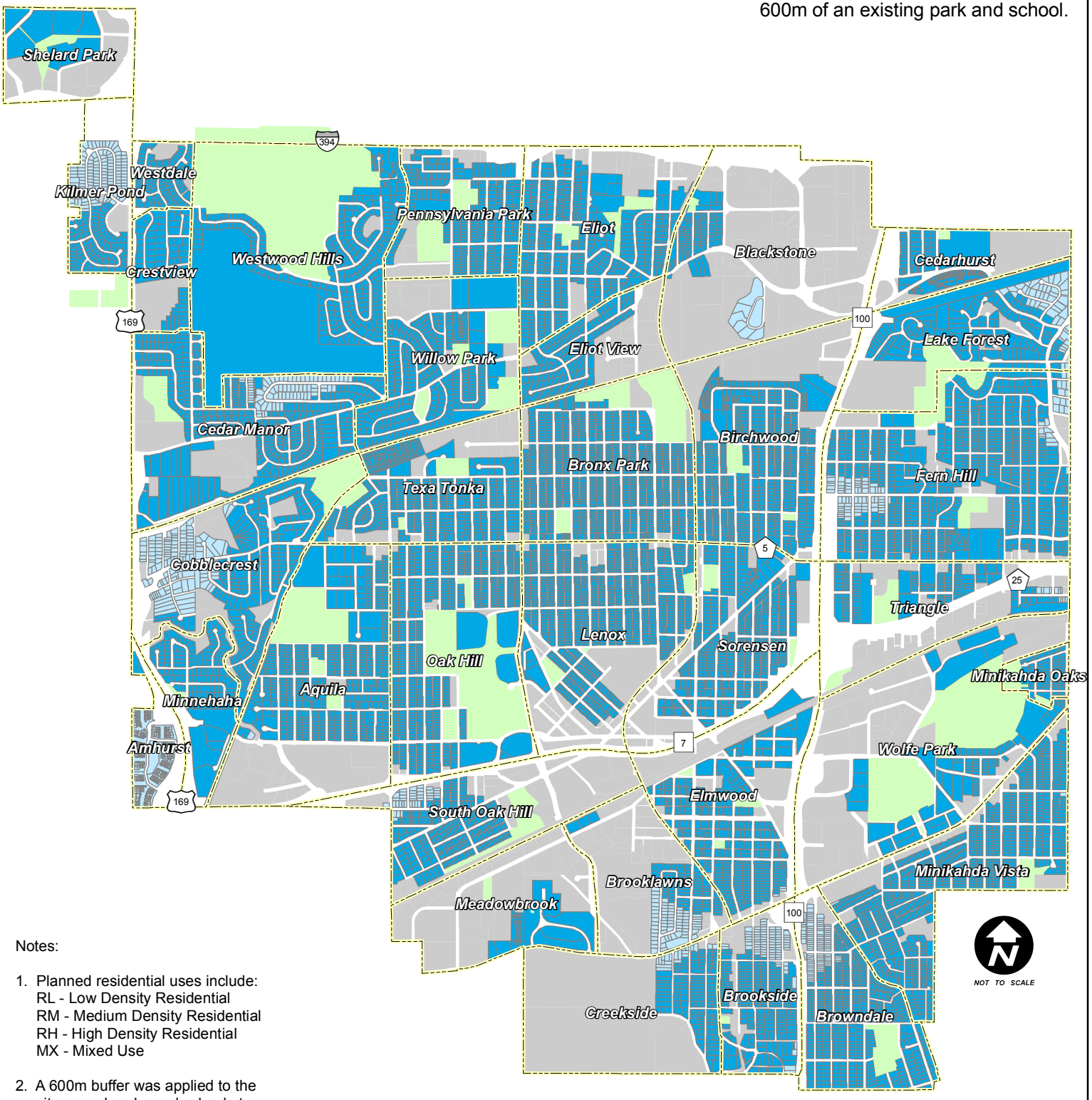
- Neighborhood Districts
- Parks
- Planned residential uses within 400m of a park & school
- Planned residential uses not within 400m of a park & school
- Non-residential uses

Physical Activity

Health Indicator

Are all planned residential areas located within 600m (preferably 400m) of playing areas, parks, and trails?

98% of planned residential uses are within 600m of an existing park and school.



Notes:

1. Planned residential uses include:
   RL - Low Density Residential
   RM - Medium Density Residential
   RH - High Density Residential
   MX - Mixed Use

2. A 600m buffer was applied to the city owned parks and schools to determine if planned residential uses were within proximity to a park.

3. The buffer took into consideration transportation barriers. It was assumed residents would not cross Highway 7, 100, 169, CR 25 or Interstate 394 to access a local park.

4. 3,145.50 acres are guided for residential uses. 3095.01 acres are within 600m of a park and school.

Legend

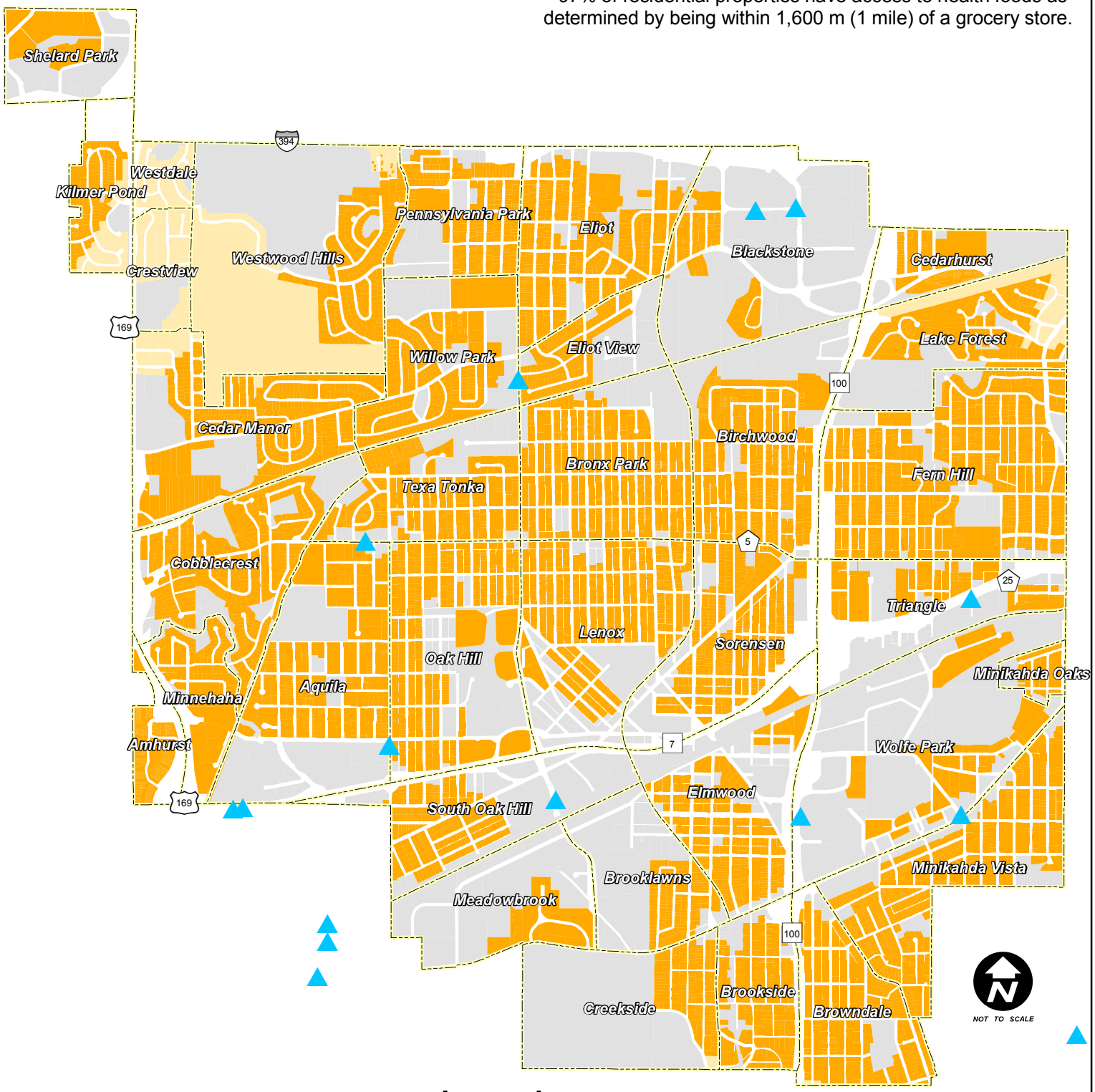
- Neighborhood Districts
- Parks
- Planned residential uses within 400m of a park & school
- Planned residential uses not within 400m of a park & school
- Non-residential uses

Healthy Food Access

Health Indicator

Are there plans to ensure that there are supermarkets/fruit and vegetable stores located throughout the municipality?

97% of residential properties have access to health foods as determined by being within 1,600 m (1 mile) of a grocery store.



Legend

- Grocery store
- Neighborhood Districts
- Residential uses with 1,600 m (1 mile) of grocery store
- Residential uses not within 1,600 m (1 mile) of grocery store
- Non residential uses

Notes:

1. Grocery stores included everything from big-box retailers like Costco and Sam's Club to small produce venders and halal markets.

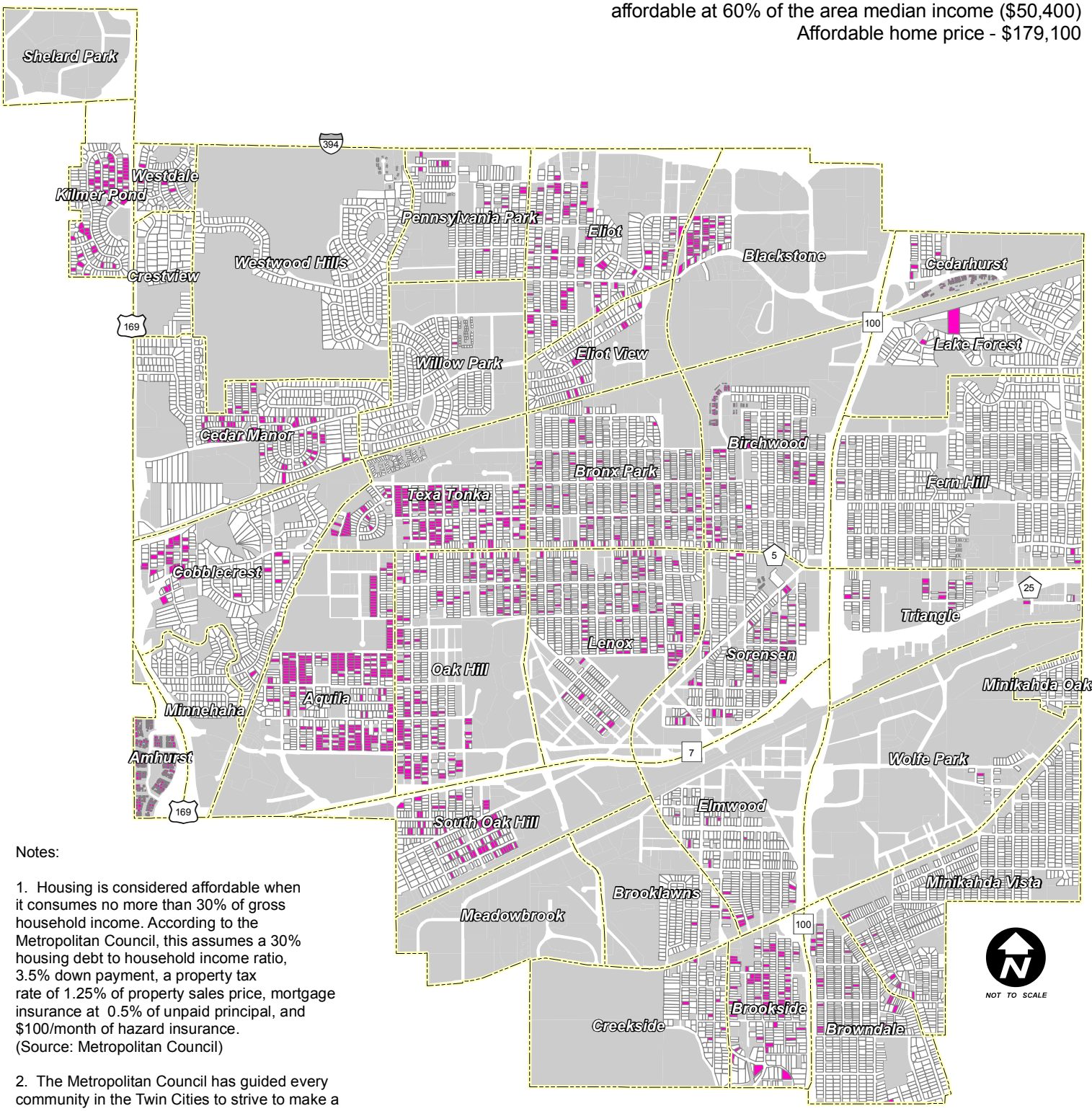
2. This analysis included grocery stores outside St. Louis Park city limits (not shown).

Housing Affordability

Health Indicator

Are at least 50% of residential units affordable to persons at or below the median household income?

14% of owner occupied units are considered affordable at 60% of the area median income ($50,400)
Affordable home price - $179,100



Notes:

1. Housing is considered affordable when it consumes no more than 30% of gross household income. According to the Metropolitan Council, this assumes a 30% housing debt to household income ratio, 3.5% down payment, a property tax rate of 1.25% of property sales price, mortgage insurance at 0.5% of unpaid principal, and $100/month of hazard insurance. (Source: Metropolitan Council)

2. The Metropolitan Council has guided every community in the Twin Cities to strive to make a portion of its housing affordable to those who earn 60% of the Twin Cities Median Income.

3. 60% of area median income ($50,400) equals an affordable home price at $179,100 (Source: Metropolitan Council)

4. This analysis only looked at owner-occupied housing units. It did not take into consideration rental units. The assessment included the information provide above, in addition to using 2011 County Tax Assessor Data (using Total Market Value).

Legend

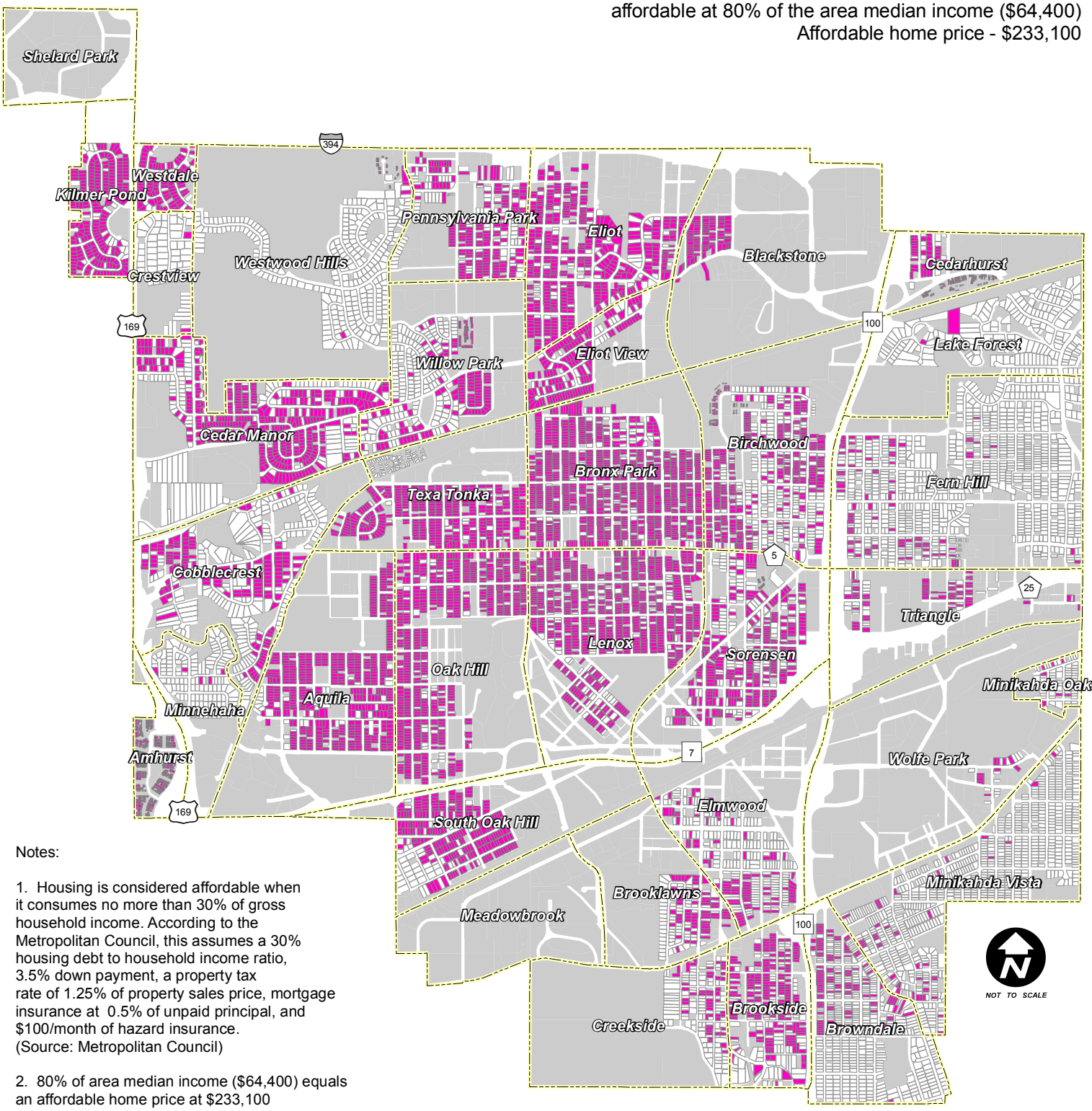
- Neighborhood Districts
- Affordable Units (Total Market Value = < $179,100)
- Non-Affordable Units (Total Market Value = > $179,100)
- Non Residential Uses or Rental Units

Housing Affordability

Health Indicator

Are at least 50% of residential units affordable to persons at or below the median household income?

63% of owner occupied units are considered affordable at 80% of the area median income ($64,400)
Affordable home price - $233,100



Notes:

1. Housing is considered affordable when it consumes no more than 30% of gross household income. According to the Metropolitan Council, this assumes a 30% housing debt to household income ratio, 3.5% down payment, a property tax rate of 1.25% of property sales price, mortgage insurance at 0.5% of unpaid principal, and $100/month of hazard insurance. (Source: Metropolitan Council)

2. 80% of area median income ($64,400) equals an affordable home price at $233,100 (Source: Metropolitan Council)

3. While 80% of $84,000 is $67,200, the 80% of area median income is capped to the U.S. median family income of $64,400. (Source: Metropoltan Council)

4. This analysis only looked at owner-occupied housing units. It did not take into consideration rental units. The assessment included the information provide above, in addition to using 2011 County Tax Assessor Data (using Total Market Value).

Legend

- Neighborhood Districts
- Affordable Units (Total Market Value =<$233,100)
- Non-Affordable Units (Total Market Value =>$233,100)
- Non Residential Uses or Rental Units

HEALTH INDICATOR

Are at least 50% of residential units affordable to persons at or below the median household income?

Neighborhood District	Number of Owner Occupied Units	60% area median income (Total Market Value - $179,100)	80% area median income (Total Market Value - $233,100)
Amhurst	242	100%	100%
Aquila	476	44%	94%
Birchwood	689	18%	61%
Blackstone	90	52%	95%
Bronx Park	921	8%	89%
Brooklawns	141	3%	44%
Brookside	306	18%	63%
Browndale	536	6%	22%
Cedar Manor	546	9%	69%
Cedarhurst	48	17%	96%
Cobblecrest	349	10%	43%
Creekside	160	4%	31%
Crestview	64	0%	3%
Eliot	467	16%	85%
Eliot View	164	13%	81%
Elmwood	268	5%	55%
Fern Hill	953	1%	13%
Kilmer Pond	230	23%	90%
Lake Forest	183	1%	2%
Lenox	795	12%	83%
Minikahda Oaks	71	0%	11%
Minikahda Vista	770	1%	6%
Minnehaha	125	0%	4%
Oak Hill	599	23%	93%
Pennsylvania Park	286	5%	62%
Shelard Park	2	100%	100%
Sorensen	437	14%	67%
South Oak Hill	279	19%	81%
Texa Tonka	428	32%	77%
Triangle	92	18%	82%
Westdale	100	5%	86%
Westwood Hills	313	0%	11%
Willow Park	412	21%	68%
Wolfe Park	28	14%	78%
Grand Total	11,570	14%	63%

Notes:

1. Housing is considered affordable when it consumes no more than 30% of gross household income. According to the Metropolitan Council, this assumes a 30% housing debt to household income ratio, 3.5% down payment, a property tax rate of 1.25% of property sales price, mortgage insurance at 0.5% of unpaid principal, and $100/month of hazard insurance. (Source: Metropolitan Council)

2. The Metropolitan Council has guided every community in the Twin Cities to strive to make a portion of its housing affordable to those who earn 60% of the Twin Cities Median Income.

3. 60% of area median income ($50,400) equals an affordable home price at $179,100 (Source: Metropolitan Council)

4. This analysis only looked at owner-occupied housing units. It did not take into consideration rental units. The assessment included the information provide above, in addition to using 2011 County Tax Assessor Data (using Total Market Value).

Notes:

1. Housing is considered affordable when it consumes no more than 30% of gross household income. According to the Metropolitan Council, this assumes a 30% housing debt to household income ratio, 3.5% down payment, a property tax rate of 1.25% of property sales price, mortgage insurance at 0.5% of unpaid principal, and $100/month of hazard insurance. (Source: Metropolitan Council)

2. 80% of area median income ($64,400) equals an affordable home price at $233,100 (Source: Metropolitan Council)

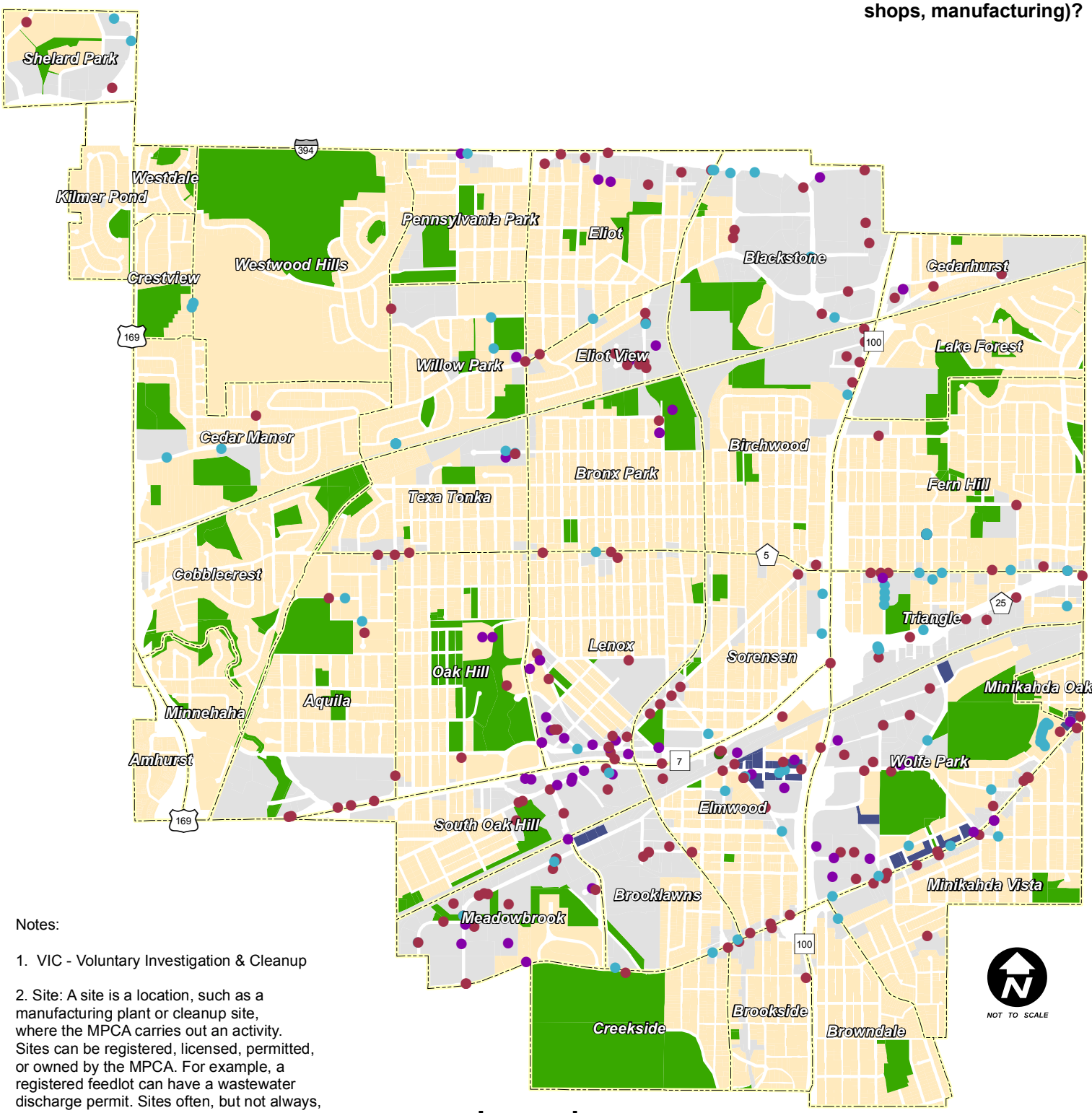
3. While 80% of $84,000 is $67,200, the 80% of area median income is capped to the U.S. median family income of $64,400. (Source: Metropoltan Council)

4. This analysis only looked at owner-occupied housing units. It did not take into consideration rental units. The assessment included the information provide above, in addition to using 2011 County Tax Assessor Data (using Total Market Value).

Contaminated Sites

Health Indicator

Are polluting sources regulated locally as well as by state and federal governments (evaluating businesses that disproportionately pollute within neighborhoods like dry cleaners, automotive paint shops, manufacturing)?



Notes:

1. VIC - Voluntary Investigation & Cleanup

2. Site: A site is a location, such as a manufacturing plant or cleanup site, where the MPCA carries out an activity. Sites can be registered, licensed, permitted, or owned by the MPCA. For example, a registered feedlot can have a wastewater discharge permit. Sites often, but not always, represent facilities. Examples include: food processing plants, construction sites, dental offices, powerplants, landfills, and areas of contaminated soil.
(Source: Minnesota Pollution Control Agency)

3. Activities refer to activities carried out by an organization and the MPCA at a given site. Activities include, but are not limited to, air emission permits, the cleanup of leaks and spills, the disposal of solid waste, and the handling of hazardous waste.
(Source: Minnesota Pollution Control Agency)

Legend

MPCA Sites - Activity

- Superfund Project
- VIC
- Multiple Activities
- Tank Site

- All Other Land Uses
- Planned Residential Use
- MX - Mixed Use
- PRK - Park and Open Space
- Neighborhood Districts

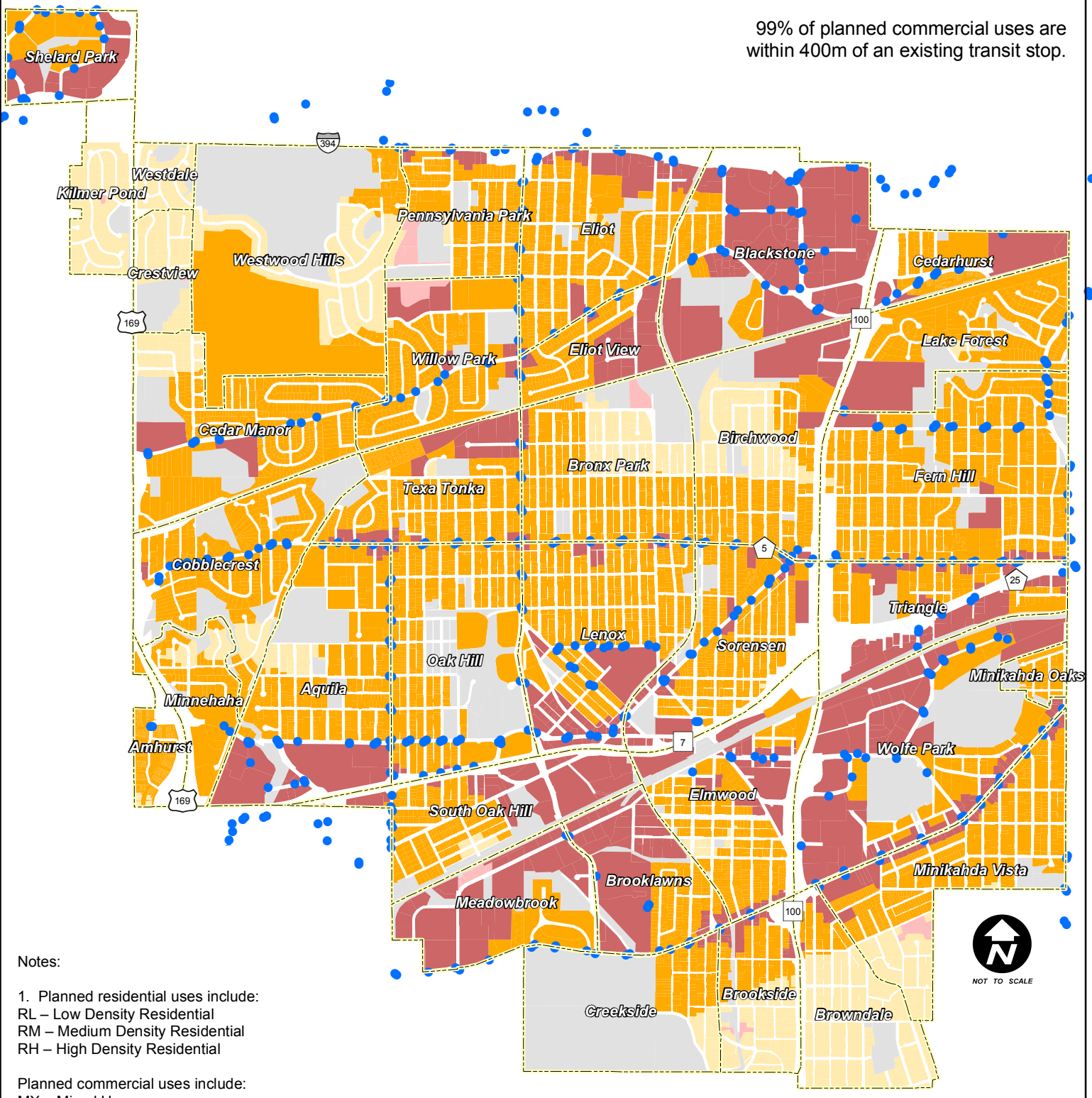
Transit

Health Indicator

Are there existing or transit stops for all planned land uses?

83% of planned residential uses are within 400m of an exting transit stop.

99% of planned commercial uses are within 400m of an existing transit stop.



Notes:

1. Planned residential uses include:
RL – Low Density Residential
RM – Medium Density Residential
RH – High Density Residential

Planned commercial uses include:
MX – Mixed Use
COM – Commercial
IND – Industrial
OFC – Office
BP – Business Park

2. A 400m buffer was applied to all exisiting transit stops to determine if planned residential uses and commercial uses were within proximity to a transit stop.

3. Future transit stops have not been determined.

Legend

- Existing Bus Stops
- Neighborhood Districts
- Residential uses within 400m of a bus stop
- Commerical uses within 400m or a bus stop
- Residential uses not within 400m of a bus stop
- Commerical uses not within 400m of a bus stop
- Non residential and commerical uses