AGENDA
PLANNING COMMISSION
REGULAR MEETING &
PUBLIC HEARING
JUNE 25, 2026, 5:30 PM

COMMISSION ATTENDANCE IN PERSON
PUBLIC MAY ATTEND IN PERSON OR REMOTELY VIA ZOOM

To better serve our community, we are now offering Live Streaming of our Planning Commission Meetings on our YouTube channel (link is provided below). This will enable citizens who wish to just view the meeting and not participate (provide comments) to do so in the comfort of their homes. Those that wish to provide input during the citizen comment periods may join the meeting as usual via the Zoom link.

- **Join Zoom Meeting**

https://us06web.zoom.us/j/88150464255?pwd=71wWxIlIc2Sid1y1CnzRVgmbeavqlV.1
Meeting ID: 881 5046 4255
Passcode: 892172

One tap mobile
+12532158782,,88150464255#,,,,*892172# US (Tacoma)
+12532050468,,88150464255#,,,,*892172# US

Join instructions
https://us06web.zoom.us/meetings/88150464255/invitations?signature=AGGDo1kbOUGtxdnjd7vRUs28qPBGeH9IgqE-8Fjp5mc

- **Watch the Live Stream on YouTube** -
http://www.youtube.com/@CityofMedicalLake

WRITTEN PUBLIC COMMENTS

If you wish to provide written public comments for the Planning Commission meeting, please email your comments to erodriguez@medical-lake.org by 2:00 p.m. the day of the commission meeting and include all the following information with your comments:
1. The Meeting Date
2. Your First and Last Name
3. If you are a Medical Lake resident
4. The Agenda Item(s) which you are speaking about

*Note – If providing written comments, the comments received will be acknowledged during the public meeting, but not read. All written comments received by 2:00 p.m. will be provided to the Planning Commission in advance of the meeting.

Questions or Need Assistance? Please contact City Hall at 509-565-5000

1) **CALL TO ORDER, PLEDGE OF ALLEGIANCE, AND ROLL CALL**

2) **ADDITIONS TO AGENDA**

3) **INTERESTED CITIZENS: AUDIENCE REQUESTS AND COMMENTS**

4) **APPROVAL OF MINUTES**
   a) May 28, 2026, meeting minutes

5) **STAFF REPORTS**

6) **SCHEDULED ITEMS**
   a) Periodic Update: Comprehensive Plan, Parts 1-3
   b) Periodic Update: MLMC amendments regarding Impact Fees
   c) Planning Commission Rules of Procedure

7) **PUBLIC HEARING**
   a) Periodic Update: MLMC amendments regarding Subdivisions
   b) Periodic Update: MLMC amendments regarding Transportation Plan

8) **COMMISSION MEMBERS' COMMENTS OR CONCERNS**

9) **INTERESTED CITIZENS: AUDIENCE REQUESTS AND COMMENTS**

10) **CONCLUSION**

City of Medical Lake

124 S. Lefevre Street – City Council Chambers

Planning Commission Meeting & Public Hearings

May 28, 2026, Minutes

***NOTE: This is not a verbatim transcript**. Minutes contain only a summary of the discussion. A recording of the meeting is available on the City of Medical Lake's YouTube channel where meetings are livestreamed.*

1) CALL TO ORDER, PLEDGE OF ALLEGIANCE, AND ROLL CALL

a) Commissioner Veliz called the meeting to order at 5:30pm, led the Pledge of Allegiance, and conducted roll call.

i) Commissioner Mark requested absence.

1. Motion to approve absence made by Commissioner Altheide, seconded by Commissioner Twohig, carried 4-0.

2) ADDITIONS TO AGENDA

a) Motion to approve made by Commissioner Twohig, seconded by Commissioner Rowe, carried 4-0.

3) INTERESTED CITIZENS: AUDIENCE REQUESTS AND COMMENTS

a) None.

4) APPROVAL OF MINUTES – April 16, 2026

a) Motion to approve made by Commissioner Twohig, seconded by Commissioner Altheide, carried 4-0.

5) STAFF REPORTS

a) Elisa Rodriguez, Senior Planner – Reviewed updated schedule and noted that she added the Transportation Master Plan. Will adopt as a separate plan rather than included in Comprehensive Plan.

6) SCHEDULED ITEMS

a) Review of Planning Commission Policies and Procedures

i) Redlined all suggested changes by Commissioner Mark and had her review. Commission discussion.

1. Motion to introduce amendments into the record to be voted on at the June meeting made by Commissioner Twohig, seconded by Commissioner Altheide, carried 4-0.

b) Periodic Update : MLMC Amendments Regarding Subdivisions

i) Working to move all into Title 19. Reviewed key points. State lays out procedure. Land divisions are generally a two-step process; preliminary and final plats. Binding site plan is another way to divide land. This is a first touch on a six-step process. Next meeting will be a hearing.

c) Periodic Update: DRAFT Transportation Master Plan

i) City contracted with Ardurra, an engineering firm, to assist with the creation of a Transportation Master Plan. Addressed mislabeling of growth areas. Calculations are the same, just a miscommunication with the engineer. Commission Twohig asked about funding these projects. Mr. Weathers explained that the state requires a 6-year Transportation Improvement Plan. Part of that plan includes potential funding sources. Allows the city to watch for grants and other funding opportunities. Plan is not binding if funding does not come through. Commission had some discussion regarding roundabouts, bus stops, and ADA access at the bus stops. Mr. Weathers shared that railing will be added to the slabs on the back side. Commissioner Altheide asked what an RRFB is. Ms. Rodriguez – it is a Rectangular Rapid Flashing Beacon; the flashing lights under a pedestrian crossing sign.

7) PUBLIC HEARING

a) Periodic Update: MLMC Amendments Regarding Specialized Housing (Continued)

i) Commissioner Veliz opened the Public Hearing at 6:08pm. Explained the procedure for the public hearing.

ii) Ms. Rodriguez explained that this is a continuation of the public hearing from the May 28th meeting because language was not completed. Staff report has findings for all approval criteria. Addressed questions. Term

"homelessness" is used because that is what is used in the RCW. Explainned requirement for sex offender checks. Presented her findings and conclusion. If Commission agrees with both findings and conclusion, then this is an approvable proposal. Discussed conditional use requirements.

iii) Citizen Comments
    1. Diane Nichols, Medical Lake resident – commented that audio was cutting out and video was freezing on Zoom. No specific comment regarding the public hearing.

iv) Commissioner Veliz closed Public Hearing at 6:17pm.

v) Motion to recommend approval of the proposed amendments to City Council made by Commissioner Twohig, seconded by Commissioner Rowe, carried 4-0.

b) Periodic Update: MLMC Amendments Regarding Transportation

i) Commissioner Veliz opened the Public Hearing at 6:19pm.

ii) Ms. Rodriguez reviewed proposed amendments and language. All in conformance with the Comprehensive Plan. Addressed comment regarding a correction needed in the tables of uses. Footnote 3 will be removed as it was included in error. Discussed desire to make it safer for bicycle parking and make the city more usable for bicyclists.

iii) No citizen comments.

iv) Commissioner Veliz closed the Public Hearing at 6:28pm.

v) Motion to recommend approval of the proposed amendments to City Council made by Commissioner Twohig, seconded by Commissioner Altheide, carried 4-0.

8) COMMISSION MEMBERS' COMMENTS OR CONCERNS

a) Commissioner Twohig attended training last night regarding Planning Commissions and how they interact with the public. Important to keep conversations strictly within Planning Commission meetings.

9) INTERESTED CITIZENS: AUDIENCE REQUESTS AND COMMENTS – None.

10) CONCLUSION

a) Motion to conclude meeting at 6:31pm made by Commissioner Altheide, seconded by Commissioner Rowe, carried 4-0.

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Roxanne Wright, Administrative Clerk Date

City of Medical Lake
124 S. Lefevre St.
P.O. Box 369
Medical Lake, WA 99022-0369

To: Planning Commission

From: Elisa Rodriguez, Senior Planner

TOPIC: Periodic Update: DRAFT Comprehensive Plan, Parts 1-3, The People, The Place, The Future

Requested Action:
Provide feedback and guidance on the DRAFT Comprehensive Plan, Parts 1-3

Key Points:
Parts one and two were previously reviewed. This draft adds part three and amends parts one and two.

Part Three: The Future, contains chapters 11-13: Placemaking, Zoning and Development Standards, and Urban Growth Area.

Among other updates, Chapter 6: Mobility and Chapter 7: Capital Facilities, now have level of service standards. These standards are critical when the City reviews proposed development. It is the duty of the City, as set forth by the Growth Management Act, to ensure that infrastructure is built concurrently with development. Setting levels of service provides standards to measure the impacts of new development.

Chapter 11: Placemaking, develops the idea of building on what makes Medical Lake great, namely, its small-town feel, natural beauty, and outdoor recreation. This focus will help to strengthen the community and encourage tourism.

Chapter 12: Zoning, includes a draft Zoning Map. This map reflects the new zoning districts that were adopted in Ordinance 1144. The draft is similar to the existing zoning map with some exceptions:

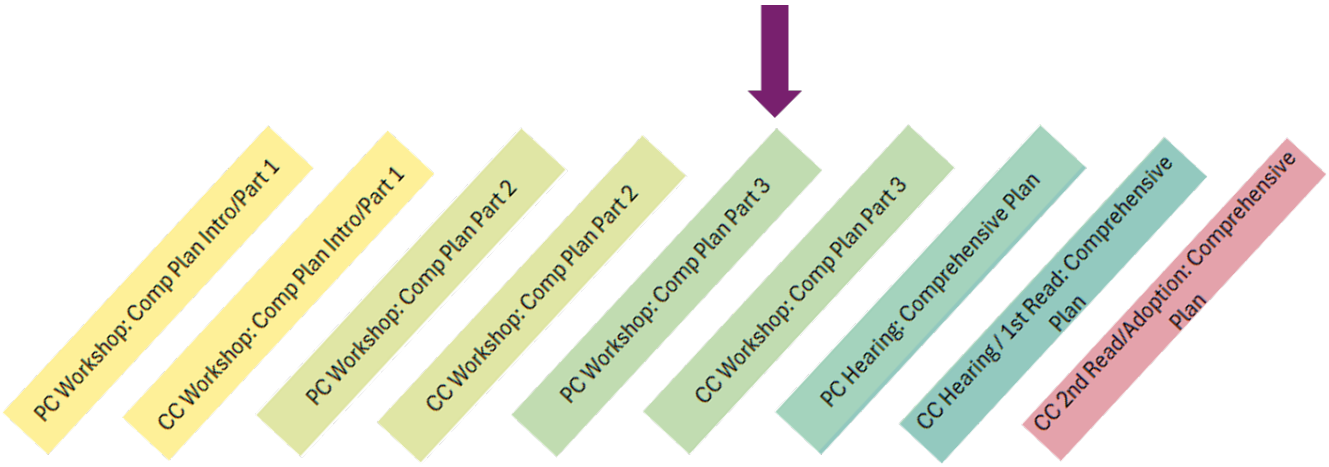
1. There is no longer an industrial zone, therefore, the Nike site is now shown as Low-Density Residential.
2. Two-Family (R-2) and Multi-Family (R-3) were combined to form Medium-Density Residential. The boundaries are not identical. Most notably, the R-2 zone was removed from Fox Hollow and Fox Ridge areas.
3. A new Public Facilities zone replaces the three other zones (Schools, Public, and Institutional).

Chapter 13: Urban Growth Area, reflects areas that are best suited for expansion of the City when needed. Spokane County controls the UGA, therefore, Medical Lake has made a request for the changes shown. However, the County's process runs parallel to ours, therefore, we will not know if our request will be honored until the end of 2026.

Background Discussion:
The Growth Management Act mandates that all fully-planning cities have comprehensive plan with land use, housing, capital facilities, utilities, transportation, and climate change elements.

Medical Lake is choosing to present a new comprehensive plan that serves the needs and desires of the community first, while still meeting the requirements of the State.

This is the step 5 of a 9-step process for adopting a new comprehensive plan.



Public Involvement:
The draft Plan is informed by and created with the information gathered in outreach activities throughout 2025 and the help of Periodic Update Steering Committee. Once the complete draft of the plan has been reviewed by the Planning Commission and the City Council, each body will hold a public hearing. In addition, the draft is available on the City website for review and comment by the public.

Next Steps:
A public hearing is scheduled for the July 23, 2026 Planning Commission meeting.


MEDICAL LAKE
COMPREHENSIVE PLAN
2046

Medical Lake Comprehensive Plan 2046

Acknowledgements

Mayor

Terri Cooper

City Council

Heath Wilbur
Ted Olson
Don Kennedy
Tony Harbolt
Lance Speirs
Lorin Ray-Abbott
Chad Pritchard

Planning Commission

Andie Mark
Kevin Twohig
JoeDavid Veliz
Cindy Altheide
Jim Rowe

Steering Committee

Mayor Terri Cooper
Lance Speirs, City Councilman
JoeDavid Veliz, Planning Commissioner
Diane Nichols, Parks & Recreation Advisory Board
Kim Headrick, MLSD
Tawni Barlow, MLSD
Ryan Stemkoski, Re*Imagine Medical Lake
Brendan Arkoosh, DSHS

City Staff

Sonny Weathers, City Administrator
Elisa Rodriguez, Senior Planner
Scott Duncan, Public Works Director
Glen Horton, Parks and Recreation Director
Koss Ronholt, Finance Director
Steve Cooper, Wastewater Treatment Plant Director

Adopted August ##, 2026 by Ordinance No. ####

Table of Contents

Message from the Mayor

The Comprehensive Plan is the City's official statement regarding its vision for future growth and development over the next 20 years. Over the past several years, Medical Lake has faced extraordinary change. We have endured hardship, demonstrated resilience, and rediscovered the strength that comes from being a small town with a big sense of community. As Mayor, I am proud to present the 2046 Comprehensive Plan, our roadmap for stewarding that strength into a future defined by opportunity, stability, and shared purpose.

A meaningful update to our Comprehensive Plan is more than a statutory requirement. It is our chance to reflect on who we are, what we value, and what we want for the next generation. Our previous plan served the community for many years, but Medical Lake has grown, our needs have evolved, and state law now asks us to plan more intentionally for housing, transportation, climate resiliency, and public services. This new plan rises to that challenge.

Most importantly, this plan was shaped by the voices of our residents. Through workshops, surveys, conversations, and partnerships, the community made it clear that Medical Lake's future must protect what we cherish—our small-town character, our natural beauty, our history of healing—while preparing responsibly for the growth that will sustain our economy, our schools, and our quality of life.

The 2046 Comprehensive Plan sets forth a clear vision: safe and walkable neighborhoods, accessible parks and recreation, diverse housing options, a vibrant local economy, and strong public services supported by thoughtful infrastructure investment. It aligns with our Healing Waters Strategic Plan and gives City Council, staff, and community partners the tools needed to make consistent, transparent, and long-term decisions.

This plan represents both a commitment and a promise. A commitment to good governance, collaboration, and transparency and a promise that every decision we make will help build a Medical Lake where people feel welcome, connected, and hopeful about the future.

Thank you to everyone who contributed your time, ideas, and energy. Together, we are shaping a Medical Lake that honors its past, meets the needs of today, and looks forward with confidence to 2046 and beyond.

Terri Cooper

Mayor, City of Medical Lake

Community Participation

Public participation has been a central and guiding element of the City of Medical Lake's Comprehensive Plan update. The process was guided by a formal Public Participation Plan, which emphasizes inclusive, proactive, and ongoing engagement to ensure that community voices inform the development of the plan's vision, goals, and policies.

The City's approach focused on reaching a broad and diverse cross-section of the community, including individuals who may not typically participate in formal planning processes. Engagement efforts were designed to meet people where they are through both formal meetings and informal, community-based interactions, and to provide multiple ways for residents to learn about the process and share input.

Consistent with this approach, the City has made a strong commitment to transparent communication and continuous outreach through its "Conversations About Community" newsletters, which serve as a key tool for informing residents and inviting feedback. These newsletters describe the planning process, explain key topics, and consistently encourage residents to attend meetings, review materials, and provide input.

A variety of tools and strategies were used to support public participation. Two community-wide surveys provided foundational input. The Pulse of the Community Survey gathered feedback on community values and vision. These survey results highlighted strong support for maintaining Medical Lake's small-town character, natural environment, and sense of community while encouraging thoughtful economic development. The Communication Preferences Survey evaluated how residents receive and engage with City communications. The results showed that Facebook, newsletters, and word-of-mouth are primary information channels, while also identifying opportunities to improve communication strategies and emergency information access.

In addition to surveys, the City implemented ongoing digital and print engagement efforts. These included newsletters, utility bill inserts, the Comprehensive Plan webpage, social media updates, and a Facebook Live event to expand accessibility and real-time participation. A "Question of the Week" series on Facebook further encouraged regular public input, with responses emphasizing the importance of the community's natural setting, small-town feel, strong social connections, and local events, while also identifying concerns such as property maintenance and downtown appearance.

Targeted, in-person outreach was a key component of the engagement strategy. City representatives conducted pop-up and event-based outreach at locations such as the farmers market, Founders Day, Lake's Harvest Foods grocery store, and senior lunch gatherings at the Silver Café. These efforts allowed staff to engage directly with residents, visitors, and underrepresented groups in informal settings. Across these conversations, participants frequently expressed appreciation for the community's small-town character, natural resources, and sense of safety, while also raising concerns related to property maintenance, infrastructure, economic development, and community amenities.

Outreach findings consistently highlighted several key themes. Residents value Medical Lake's friendly, connected community, walkability, parks, wildlife, and scenic environment. At the same time, participants expressed interest in expanding recreational amenities (such as trails, parks, and family-oriented activities), enhancing downtown vitality, improving infrastructure and public safety, and supporting local businesses and economic opportunities. Conversations also showed general

support for small-scale recreational tourism as a way to support the local economy while preserving the community's character.

A Steering Committee composed of elected officials, appointed representatives, and community stakeholders provided ongoing oversight and guidance throughout the process, meeting regularly to review progress and support outreach efforts. Planning Commission and City Council workshops, along with required public hearings, offered additional opportunities for in-depth discussion, transparency, and formal public input.

Overall, the public participation process combined surveys, digital outreach, social media engagement, community conversations, and formal public meetings to create a comprehensive and inclusive approach. This multi-faceted engagement strategy ensured that a wide range of community perspectives were captured and integrated into the Comprehensive Plan update.

Community Vision

The Medical Lake Comprehensive Plan 2046 endeavors to:

- Nurture Medical Lake's small-town charm and community spirit while honoring its history.
- Integrate the natural and built environment in a thoughtful, sustainable manner.
- Create safe, walkable neighborhoods with accessible parks and housing for all.
- Establish a community where all members thrive, empowered by equitable access to resources, strong social connections, and a healthy environment.
- Encourage community partnerships and recreational tourism to help the economy thrive, with special attention to downtown.

The Comprehensive Plan

Welcome to the new and improved 2046 Medical Lake Comprehensive Plan. This City's first comprehensive plan was adopted in 1979. In 1997, after the adoption of the Washington State Growth Management Act (GMA), the City adopted a new comprehensive plan. The plan was revised in 2003, 2007, 2010, and 2019, but remained similar to the 1997 version.

Considered a fully-planning city under the GMA, it is mandated that our comprehensive plan is updated every ten years to plan for the next twenty years. This ten-year update cycle is referred to as the "Periodic Update." The City of Medical Lake chose to use this opportunity to not just update, but to replace the comprehensive plan with a document that better represents the City and provides more guidance for future decision making. The Plan communicates the City Council's intent, priorities, objectives, and expectations to residents, businesses, agencies, developers and others with an interest in the city.

This Comprehensive Plan provides a vision for growth and development over the next twenty years and works in conjunction with the City's Healing Waters Strategic Plan. While growth is important to the City's vitality, the policies also address preserving and improving those aspects and features of the City and the natural environment that contribute to quality of life in the community. This document will guide City policy and ensure consistency amongst City departments and staff.

The Plan reflects input from community members, stakeholders, and public officials. This wealth of information will continue to educate all members of the community and spur future conversations.

The Plan provides implementation strategies and is the foundation for development regulations found in the municipal code. It provides guidance in maintaining the Capital Improvement Program. The plan provides priorities to ensure continuity and consistency in land use decisions, and a systematic approach to preparing for projected growth.

Contributing Documents

The Comprehensive Plan is informed and supported by various detailed analyses that are contained in separate documents. Supporting plans and studies, referred to or adopted by reference within the Comprehensive Plan, are listed below.

- Healing Waters Strategic Plan
- Capital Improvement Plan
- Land Capacity Analysis
- Housing Needs Assessment
- Hazard Mitigation Plan
- Transportation Master Plan
- Parks Master Plan
- Shoreline Master Program

These plans and studies are anticipated to be updated over the life of the Comprehensive Plan as environmental, fiscal, social, economic, and technological circumstances evolve. Such new information should direct future amendments to the Comprehensive Plan, as appropriate, to maintain its usefulness to the community.

State and Regional Planning

Planning under the Growth Management Act requires a balance of local policy objectives with mandates within the Act and with regional and countywide policy priorities.

Growth Management Act (GMA)

In Washington State, comprehensive plans are directed by the Growth Management Act, Chapter 36.70A RCW. GMA provides a context and specific requirements for jurisdictions planning under the Act. This context is outlined in the framework planning goals contained in RCW 36.70A.020, as follows:

1. **Urban growth.** Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.
2. **Reduce sprawl.** Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.
3. **Transportation.** Encourage efficient multimodal transportation systems that will reduce greenhouse gas emissions and per capita vehicle miles traveled, and are based on regional priorities and coordinated with county and city comprehensive plans.
4. **Housing.** Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.
5. **Economic development.** Encourage economic development across the state in ways that align with adopted comprehensive plans. Support economic opportunities for all residents, especially those who are unemployed or disadvantaged, while helping existing businesses grow and attracting new ones. Recognize that economic conditions vary

by region and promote growth in areas that are struggling, ensuring that all development stays within the limits of the

6. **Property rights.** Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.
7. **Permits.** Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.
8. **Natural resource industries.** Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forestlands
9. **Open space and recreation.** Retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.
10. **Environment.** Protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.
11. **Citizen participation and coordination.** Encourage the involvement of citizens in the planning process, including the participation of vulnerable populations and overburdened communities, and ensure coordination between communities and jurisdictions to reconcile conflicts.

state's natural resources, public services, and public facilities.

12. **Public facilities and services.** Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.
13. **Historic preservation.** Identify and encourage the preservation of lands, sites, and structures, that have historical or archaeological significance.
14. **Climate change and resiliency.** Ensure that comprehensive plans, development regulations, and regional policies, plans, and strategies under RCW 36.70A.210 and chapter 47.80 RCW adapt to and mitigate the effects of a changing climate; support reductions in greenhouse gas emissions and per capita vehicle miles traveled; prepare for climate impact scenarios; foster resiliency to climate impacts and natural hazards; protect and enhance environmental, economic, and human health and safety; and advance environmental justice.
15. **Shorelines of the state.** For shorelines of the state, the goals and policies of the shoreline management act as set forth in RCW 90.58.020 shall be considered an element of the county's or city's comprehensive plan and productive agricultural lands, and discourage incompatible uses.

Spokane Countywide Planning Policies

The Countywide Planning Policies (CWPPs) establish a countywide framework for developing and adopting comprehensive plans and Urban Growth Areas. The CWPPs are intended to ensure that comprehensive plans are consistent between jurisdictions and to provide direction necessary for the coordinated implementation of GMA goals. Medical Lake planning staff participates in the

Spokane County Planning Technical Advisory Committee (PTAC) that provides advice to the Spokane County Steering Committee of Elected Officials (SCEO). The Mayor of Medical Lake is a member of SCEO and this body provides recommendations to the Spokane County Board of County Commissioners (BOCC), who ultimately adopt the CWPPs.

The basis of comprehensive planning in Washington State starts with a population forecast provided by the Office of Financial Management. Each county receives a population forecast that they allocate to each jurisdiction, including the unincorporated portions of the county. This allocation process is developed through PTAC, is reviewed by SCEO, and approved by the Spokane County BOCC. With this information, each jurisdiction performs a land capacity analysis using the methodology prescribed in the CWPPs. The purpose of this exercise is to determine if the jurisdiction has enough available land within the UGA to accommodate 20 years of growth. In other words, is there enough undeveloped land to provide housing and employment for the forecasted population. If the 20 years of growth cannot be accommodated, the first step is for the jurisdiction to look at opportunities to change zoning designations and regulations to provide that opportunity. New to this Periodic Update is the requirement to examine housing needs by income level. This means that jurisdictions must provide for a variety of housing types and densities. When this has been reasonably done and there is still a need, the county examines the UGA as a whole for the possibility of expansion.

The West Plains

Medical Lake is part of the West Plains of Spokane County, an area west of the City of Spokane and home to the neighboring cities of Cheney and Airway Heights, Fairchild Air Force Base, and housing and employment centers in unincorporated Spokane County. The combination of these communities has created a dynamic regional ecosystem where housing, transportation, employment, and public services are increasingly interconnected.

Airway Heights serves as the commercial and industrial core of the West Plains, with significant job growth driven by aerospace, manufacturing, logistics, and service-sector employers. Cheney contributes a strong educational and cultural presence through Eastern Washington University and provides well established residential neighborhoods and supporting services. Fairchild Air Force Base is the region's largest single-site employer and a critical part of the West Plains economy and identity, shaping workforce demand, housing needs, and regional infrastructure investments. Surrounding unincorporated areas host large industrial parks, distribution centers, and the Spokane International Airport which serves as another major driver of regional growth supporting thousands of jobs in aviation, warehousing, logistics, and advanced manufacturing.

Through ongoing collaboration, Medical Lake and its West Plains partners can work to address growing public safety, transportation, housing, and workforce demands by maintaining strong public services and enhancing quality of life for residents, businesses, and the region as a whole.

Healing Waters Strategic Plan

The six targets of the Healing Waters Strategic Plan inform the objectives and key results of City actions. These targets are instrumental in the forming of the Comprehensive Plan.

1. A thriving local economy
2. A healthy and sustainable environment
3. Engaged and empowered citizens and stakeholders
4. Multi-modal connections into and throughout the community
5. Healthy living and recreation
6. Community safety and security

Part One: The People

Chapter 1: Context

History and Culture

For centuries, the Spokane people and other Indigenous tribes believed in the healing properties of Medical Lake's waters, mud, and salts, calling it "strong medicine water" and using it for steam baths and powdered salts.

In 1872, Andrew Lefevre, followed by his nephew Peter, discovered the lake while settling sheep, and experienced relief from rheumatism. This sparked an interest in the lake's alleged curative powers. Stanley Hallett arrived in 1877 and began to commercialize lake salts and soaps which helped launch the town's identity based on healing waters.

By the late 1870s, spas, bathhouses, hotels, and resorts lined the lake. The Town of Medical Lake was officially incorporated in 1890 and within a few years had multiple hotels, stores, and saloons. With the addition of the electric interurban rail in 1905, connecting Spokane to Medical Lake, weekend crowds increased. Peak summer draw brought thousands of visitors. The resort era declined in the 1920s due to overuse of its mineral deposits, automobile travel, lake degradation, and waning belief in mineral therapies. The interurban rail ceased operations by 1922.

Hallett was the first mayor of Medical Lake, and he and Lefevre were instrumental in encouraging the State to locate an insane asylum in Medical Lake. Among others, they donated land and granite to encourage the siting. In 1891, Eastern State Hospital was constructed to serve Eastern Washington. Later, the site grew further with institutions including Eastern State Custodial School for developmental disabilities (now Lakeland Village), Pine Lodge women's prison (now closed), and Westlake.

The arrival of Spokane Army Air Corps depot early in WWII (renamed Fairchild AFB in 1950) significantly boosted population. With many residents tied to military service, the population of Medical Lake doubled from 1940 to 1950.

By the 1960s, lake health had declined due to polluted runoff, leading to algae blooms and fish population loss. To revitalize the lake, a sewer system was installed in 1964 allowing cleaner water to flow to the lake. In 1977 alum was added to the lake to help clear the water and reduce the nutrients that help feed the algae. During the 1980s-90s, aerators were placed in the lake to add oxygen to the deeper waters. Today, the lake is in good health and even though it does not provide healing properties of the past, it now provides free recreational opportunities for locals and the region.

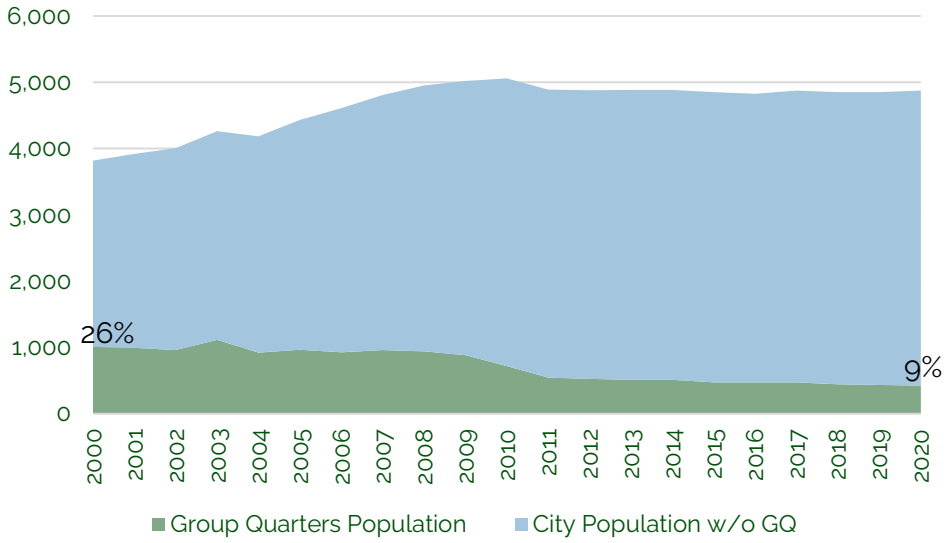
On August 18, 2023, a fire started near Gray Road just west of Medical Lake city limits, and quickly spread by strong winds from the west. Ultimately, the fire grew to 10,085 acres in and around Medical Lake, destroying 240 homes, 56 within the City. Recovery efforts galvanized local nonprofits, businesses, churches, and residents, rewriting Medical Lake's identity around resilience, mutual aid, and shared recovery.

Medical Lake remains a place of relaxation and enjoyment, being ideally located as a haven for outdoor recreation with multiple lakes, ample trails, and a small-town spirit captured in year-round festivals and events.

Population

At a glance, the population growth numbers for Medical Lake would suggest that the City is in a state of decline. Looking closer at the numbers, there is a more nuanced history. Medical Lake had a population of 3,815 in the year 2000. With several new residential subdivisions, the population increased by nearly a third by 2010, reaching 5,060 residents. However, at the same time the state institutions within the city boundaries were beginning to decline in population. In 2000 the three institutions (Lakeland Village, Eastern State Hospital, and Westlake) housed 1,006 residents. By 2010, this population was already down by nearly 30% to 715 people. State institutions have continued to reduce their population and Washington State Office of Financial Management (OFM) has stopped including the residents of Westlake campus of Eastern State Hospital in the population calculations. Now only Lakeland Village and Eastern State Hospital residents are counted in Medical Lake's total population. Hence the state institution residents that count towards the City's population is less than half of what it was 24 years ago. Meanwhile, Medical Lake leadership in the 2010's adopted a no-growth policy and new development slowed down. Leadership and attitudes about growth have recently changed, but the City is still struggling to overcome that legacy.

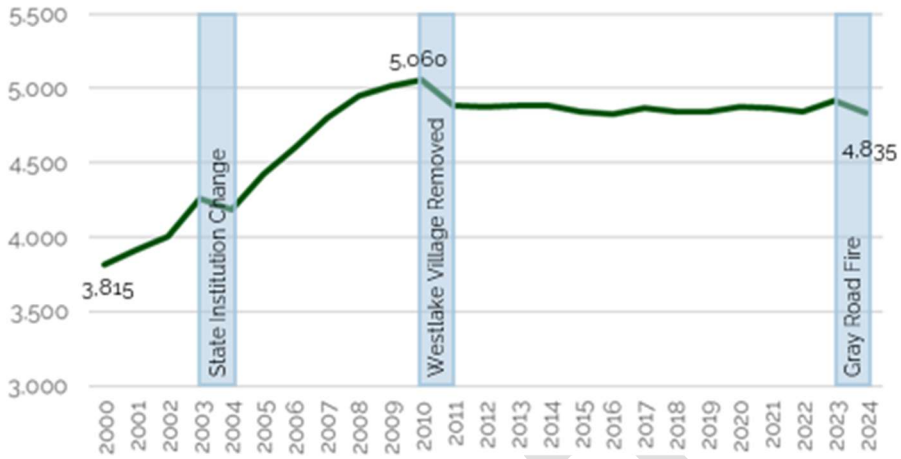
Figure 1. Medical Lake Institutional Population 2000-2020



Source: OFM

These historical population growth numbers are important to Medical Lake because they play a role in allotting future population to the city. Spokane County is given a forecasted population from OFM for the entire county for the year 2046. Growth trends were used to allocate this population to all the jurisdictions and the unincorporated areas of the County. Population growth from only 2010 to 2022 was considered. In this small window, Medical Lake's population decreased from 5,060 to 4,840 due to a change in who OFM includes in population.

Figure 2. Medical Lake Population 2000-2024



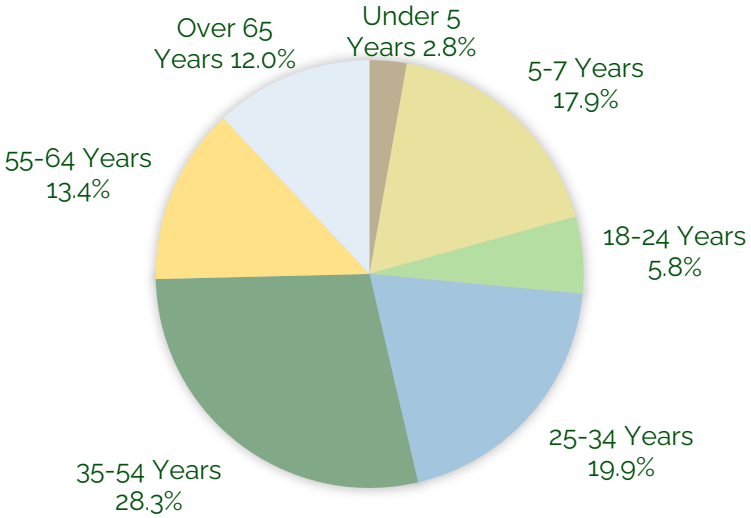
Source: OFM

Even though Medical Lake experienced housing growth, the elimination of Westlake's residents in the calculation made the total population decrease. With this low growth rate, the County is allocating only 244 new residents between 2023 and 2046. Medical Lake is not limited to 244 additional residents, but rather this is the minimum number of residents the City is expected to accommodate. The City of Medical Lake performed a land capacity analysis in early 2025. This analysis looked at underdeveloped and vacant land for potential development over the next 20 years. Using the zoning development standards of the time, it concluded that the City has the potential for accommodating an additional 744 people in 293 dwelling units. This is well above the small population of 244 allocated by Spokane County. Although this may suggest a lack of need for change, there is a regional need for housing that Medical Lake can help.

Demographics

Demographically, Medical Lake is a small, predominantly White community with balanced age distribution. The existence of young families and older adults indicates a variety of needs in the community, ranging from early learning facilities to aging-in-place housing options.

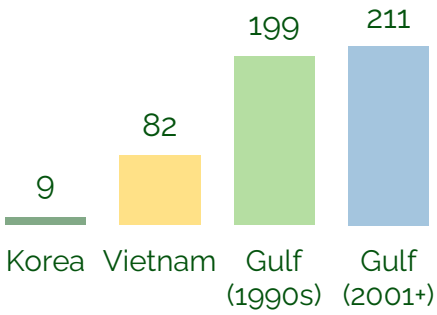
Figure 3. Population Distribution



Source: Neighborhoodscout.com

Located close to the Fairchild Air Force Base, it is not surprising that 13.8 % of Medical Lake's population are veterans. Of these 536 veterans, 447 are male and 89 are female. This percentage is significantly higher than the county average, which will influence housing, services, and economic opportunities.

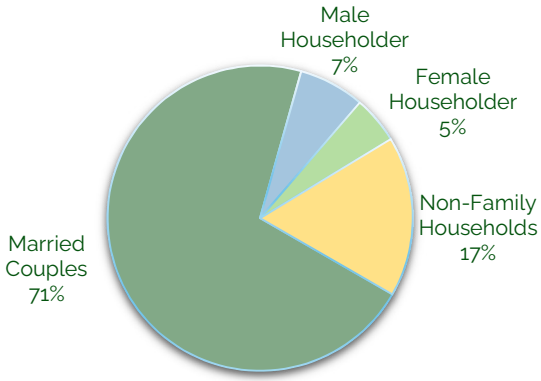
Figure 4. Veteran Status



Source: Censusreporter.org

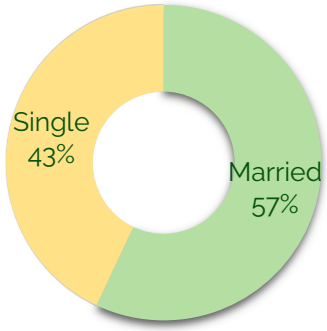
According to the US Census Bureau, there are 1,877 households in Medical Lake. The median income of these households was $74,426 in 2024. This was slightly below the Spokane County median household income of $78,582. With an average of 2.3 persons per household, the majority of households consist of married couples.

Figure 5. Household Types



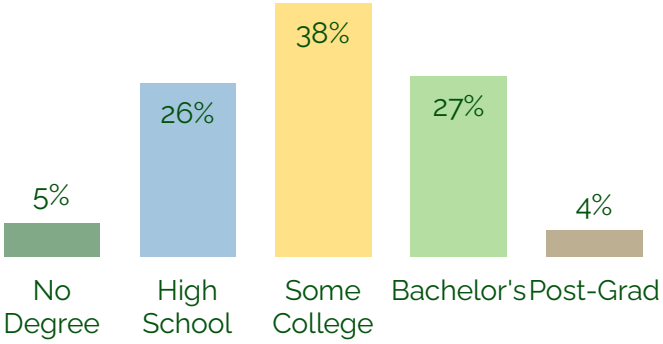
Source: Censusreporter.org

Figure 6. Marital Status



Source: Censusreporter.org

Figure 7. Education Attainment



The population of Medical Lake has a strong education attainment with 95.5% of adults having a high school degree or higher.

Source: Censusreporter.org

Chapter 2: Housing

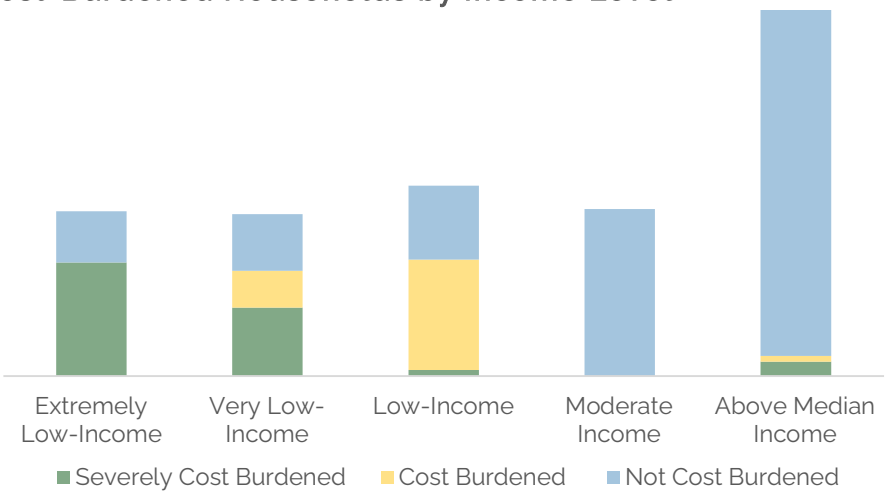
Having a variety of housing types creates a more inclusive, stable community. As our citizens move through life stages, incomes, and household sizes, a mix of housing options, such as single-family homes, apartments, townhouses, and accessory dwelling units, ensures that everyone can find a suitable place to live. Different housing types often come at different price points. Offering a range helps accommodate low-, middle-, and high-income households, reducing housing cost burdens and promoting economic diversity.

As people age or experience changes in mobility, they may need smaller, more accessible homes. By continuing to have diverse housing options this will allow Medical Lake residents to stay in the City rather than being forced to relocate.

A mix of housing types fosters social diversity and creates neighborhoods with varied demographics, which can strengthen community ties and support local businesses. Higher-density housing types like apartments and townhomes make better use of limited land, especially in urban areas, and can reduce sprawl, traffic, and environmental impacts. With varied housing Medical Lake will be better equipped to adapt to economic shifts, population changes, and evolving lifestyle preferences.

In 2020, Berk Consulting, hired by the Department of Commerce, compiled U.S. Department of Housing and Urban Development (HUD) data to provide a snapshot of cost-burdened households across the State. The preamble to the data states, "One of the best indicators of affordable housing needs is the number of households that are "cost-burdened" or spending too much of their income on housing. These households have limited resources left over to pay for other life necessities such as food, clothing, medical care, transportation, and education. They are also at higher risk of displacement when housing costs rise or life circumstances change. HUD considers housing to be affordable if it costs no more than 30% of a household's income. Households paying more than 30% of their income for housing are considered to be cost-burdened, while households paying more than 50% are severely cost-burdened."

Figure 8. Cost-Burdened Households by Income Level



Source: housing.berk-maps.com/

The Growth Management Act (GMA) requires local governments to "plan for and accommodate" housing that is affordable to all economic segments, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock. This chapter addresses 36.70A.070(2) and the expanded housing element requirements adopted in 2023.

This requirement is in line with the Medical Lake Healing Waters Strategic Plan. Objective 2.1.2 states, we shall "Provide a variety of densities and housing types to promote greater choices and opportunities." In addition, objective 2.1.3 states, the City should endeavor to "Meet a variety of needs including a broad range of health, social, and affordable housing issues paying particular attention to senior citizens, low-income families, persons with disabilities, and other special need populations."

The Housing for All Planning Tool (HAPT) is an Excel-based resource developed by the Department of Commerce to support jurisdictions in meeting the state's expanded (GMA) housing requirements. This tool includes countywide housing needs projections based on Office of Financial Management (OFM) population projections. Projected housing needs are based on population projections and current household incomes. HAPT provides the method for determining housing needs for moderate, low, very low, and extremely low-income households, as well as emergency housing and permanent supportive housing (PSH). These income levels are based on the Area Median Income (AMI) determined by the US Department of Housing and Urban Development (HUD). For 2025, the AMI for Spokane County is $100,800.

The following table represents the existing and projected housing needs for Medical Lake as determined by HAPT.

Figure 9. Projected Housing Needs

	Extremely Low Income		Very Low Income	Low Income	Moderate Income				
	<30% AMI Non-PSH	<30% AMI PSH	30-50% AMI	50-80% AMI	80-100% AMI	100-120% AMI	>120% AMI	Total	Emergency Housing
Existing Housing Units	184	0	159	839	329	96	221	1828	0
	10%	0%	9%	46%	18%	5%	12%	100%	
Needed Housing Units	95	27	65	39	21	17	65	329	15
	29%	8%	20%	12%	6%	5%	20%	100%	
Total Housing Units	279	27	224	878	350	113	286	2157	15
	13%	1%	10%	41%	16%	5%	13%	100%	

AMI = Area Median Income
PSH =Permanent Supportive Housing

Source: Spokane County HAPT

Guidance provided by the Department of Commerce gives a housing type associated with each income level.

Detached, single-family houses are typically affordable to those households earning greater than 120% of the area median income (AMI). Smaller homes and older housing stock may be affordable to households earning less than 120% AMI. Townhouses are single-family houses that are on their

own property but share a wall with another unit. Plexes are multi-unit buildings containing two to six units. These are typically referred to as duplexes, triplexes, etc. Cottage housing is individual houses that are located on a single property. They are typically smaller and can be owned or rented, but always have some type of management company or homeowners association to manage the commonly owned elements. Townhouses, plexes, and cottage houses are examples of housing that is usually affordable for households earning 80%-120% of the AMI. Accessory dwelling units (ADUs) are small residences on the same property as a single-family house. They can be attached to the main house, over a garage, or in the back yard. ADUs, along with apartments, are generally affordable to households with an income of 50%-80% of AMI. Most typically, any housing that is affordable to those households earning less than 50% of AMI require subsidies.

Figure 10. Income Levels and Housing Types

Housing Type	Detached Single-Family Houses	Townhouses, Cottage Housing and Plexes	Apartments	Accessory Dwelling Units	Apartments with Subsidies
Income Needed	>120% AMI	80-120% AMI	50-80% AMI	50-80% AMI	<50% AMI

Source: Department of Commerce

The City of Medical Lake took a housing inventory in 2024. The process combined Spokane County tax assessor data with City building permit data. Any discrepancies were verified with a site visit or confirmation with a property owner/manager.

Per the inventory, as of 2024, the City has:

1291 (71%) Detached Single-Family Houses

331 (18%) Plexes (2 to 6 units)

204 (11%) Apartments

The City conducted a Land Capacity Analysis (LCA) in 2025. Using methodology developed by Spokane County, potential residential development was determined. Per the LCA, based on available land within the current city limits and the zoning standards effective at the time, it is possible that in the next 20 years, the City can grow by 293 units.

Figure 11. Potential Future Housing Units

	Single-Family	Plexes	Apartments	Total Units
Existing Housing Units	1291	331	204	1828
	71%	18%	11%	100%
Additional Potential Units per LCA	204	48	41	293
	70%	16%	14%	100%
Total Housing Units	1495	379	245	2119
	71%	18%	12%	100%

Source: ML Land Capacity Analysis

Feedback from the Pulse of the Community survey found that the Medical Lake community is content with this split of housing types. and will attempt to retain this as growth happens.

The HAPT, shows that the State would like Medical Lake to provide another 187 housing units to those households between 0% and 50% of the average median income (AMI). Most typically, this housing must be subsidized to make it affordable to these household incomes. The City of Medical Lake does not have the resources to provide incentives for subsidized housing. However, the City is willing to work with other agencies to provide such housing as long as supportive services are also available to these households. At this time, medical care, mental health care, substance use care, employment training, and life skill training are services not readily available within the City. If a resident depends on public transit, the public bus is available hourly, making out of town trips difficult.

Based on the 2025 Land Capacity Analysis, the City has adequate vacant and undeveloped land within the City to meet the small population allocation. However, there is a significant need for additional housing on the West Plains. Medical Lake is well positioned to help meet this need. By adjusting zoning districts and the associated standards, more housing types and densities can be accommodated. As part of the Periodic Update, new zoning districts are being considered to provide clearer, more concise, and flexible development standards to encourage housing that is in line with retaining the City's small-town charm. In addition, the City is working with Spokane County to explore the possibility of retaining and swapping those urban growth areas adjacent to Medical Lake, a further opportunity to provide housing for the region.

Chapter 3: Public Services

Critical to the Comprehensive Plan, understanding the quality and contribution of current services ensures that the right services are in the right place to support the growth that is planned. The following includes a summary of existing services.

Public Safety

Law Enforcement

The City of Medical Lake has contracted with the Spokane County Sheriff's Office since 2009 The current contract provides for two dedicated Sheriff's Deputies, from 7:00 a.m. to 7:00 p.m., seven days a week, based on crime data and community needs. Additional Deputies continue to serve in the West Plains outside of these hours and respond to calls within the City. With office space in the Medical Lake City Hall, deputies are often present, using the space to handle administrative duties. Comprehensive law enforcement services provided include patrol, response, investigations, and enforcement of City ordinances and state law. Beyond the dedicated positions, Medical Lake receives the full benefit of shared service units, including supervisory support, investigations, specialized teams, dispatch services, and countywide resources. The City's relationship with the Sheriff's Office will continue to prioritize community-oriented policing, visibility, and relationship-building.

The Sherrif's Community Oriented Policing Effort (S.C.O.P.E,), also has an office located in City Hall. S.C.O.P.E. is a volunteer-driven public-safety and crime-prevention organization that supports law enforcement and local communities. Its mission centers on teamwork between citizens and the Sheriff's Office to enhance neighborhood safety and prevent crime.

The Medical Lake School District Resource Officer (SRO) serves as a law-enforcement presence, a prevention specialist, and a student/community resource. The SRO monitors traffic and parking to ensure safe student arrival and departure, maintains a visible presence at school events to enhance safety, investigates reports of cyberbullying, harassment, drug- or alcohol-related incidents, and other school-based concerns, and provides law-enforcement backup for emergency situations within the school community.

Fire Protection

To ensure 24/7 emergency coverage for the community, the City of Medical Lake has contracted with Spokane County Fire District #3 for fire protection, emergency medical response, and life safety services since 2019. Fire Station 311 is located in City Hall and staffed to ensure rapid response times and consistent coverage by a combination of full-time career firefighters, EMTs, paramedics, and trained volunteer personnel. This blended staffing model delivers high-quality service while maintaining cost efficiency for the community.

District #3's extensive service area and regional resources benefit Medical Lake by providing access to specialized equipment, advanced medical care, wildfire response capacity, and a scalable system capable of managing major incidents. The District's training programs, community outreach, and emphasis on prevention enhance local readiness, while coordinated planning and joint exercises improve response during large-scale emergencies such as wildfires. Through these services, Spokane County Fire District #3 plays a critical role in protecting Medical Lake's residents, businesses, and public facilities.

Animal Control

The City of Medical Lake has contracted with Spokane County Regional Animal Protection Service (SCRAPS) since 2014. Spokane County established an Animal Control Department managed by an Animal Protection Director and maintains an animal Care and Control facility through SCRAPS, that provides animal control and enforcement, including licensing services.

Municipal Court

After several years of services through Cheney Municipal Court, the City of Medical Lake now contracts with the Airway Heights Municipal Court. The Interlocal Agreement between the Cities of Airway Heights and Medical Lake for Municipal Court Services and Facilities provides for the use of the facilities, materials, and personnel for the filing and processing of civil, traffic, or other infractions and criminal citations. Detention and corrections services are contracted with Spokane County. The City will explore the desire for a regional West Plains Municipal Court as needs evolve.

Emergency Management

The City of Medical Lake partners with Spokane County through a long-standing series of interlocal agreements, most recently adopted in 2020, to provide coordinated and cost-effective emergency management services. This partnership ensures alignment between countywide and local preparedness efforts while supporting the protection of public health, safety, and property during emergencies.

Under the agreement, Spokane County Emergency Management provides regional coordination, technical assistance, training resources, and access to countywide emergency planning and response infrastructure. The City retains direct responsibility for local emergency planning, staff training, continuity of operations, emergency declarations, activation of local response efforts, volunteer coordination, and tracking recovery costs. Medical Lake also participates in the regional Emergency Management Policy Board, ensuring the City has a voice in West Plains and countywide emergency management policies, priorities, and resource allocation.

Recent efforts include the City's active participation in the update of the Spokane County Hazard Mitigation Plan and the adoption of a Medical Lake Hazard Mitigation Plan, including documenting risks, vulnerabilities, and mitigation strategies following the 2023 Gray Fire. This work strengthens preparedness, informs future capital planning, and positions the City to qualify for state and federal mitigation funding.

Through these coordinated systems, Medical Lake benefits from a modern, resilient, and regionally integrated emergency management framework capable of supporting the community before, during, and after disasters.

Utilities

Drinking Water

The City of Medical Lake owns and operates a municipal water system that serves all properties within the city limits and extends east to Craig Road. Through interlocal agreements, the City also provides water to Strathview Water District #16 on the east shore of Silver Lake and to Four Lakes Water District #10, supporting broader West Plains utility needs. The system is supplied by two City-owned wells that currently provide sufficient capacity for existing customers and some future

growth. To ensure long-term reliability, the City has initiated planning for a third well, with production anticipated within five to seven years.

Medical Lake also maintains an intertie with the City of Spokane for emergency water supply, drawing small amounts at regular intervals to maintain water quality. The City's well water requires only minimal disinfection and is routinely tested to meet all State Department of Health drinking water standards. As part of regional water quality monitoring, the system is periodically tested for PFAS compounds; while levels are not currently a concern, the City has contingency plans to adjust sources if necessary.

The City continues to explore opportunities to expand reclaimed water use for irrigation, promote water conservation, and evaluate potential district consolidation to improve long-term system efficiency. Public Works and Administrative Services collaborate to deliver clean and affordable water to the community. After recent accounting and billing system improvements, the water utility is now known to be financially sustainable. A utility rate study is underway to ensure that future rates adequately support operations, maintenance, and needed capital investments.

Wastewater

The City of Medical Lake operates a 100% beneficial use, Class A reclaimed wastewater treatment facility with a capacity to process 1 million gallons per day. The system serves more than 1,800 properties and provides reclaimed water to West Medical Lake for lake-level stabilization, as well as to Eastern State Hospital and the Washington State Veterans Cemetery for irrigation. The City acts as the lead agency for a regional treatment facility that serves both the community and the Department of Social and Health Services (DSHS) campus, ensuring coordinated management of wastewater flows and reclaimed water distribution.

A significant portion of the City's wastewater collection system currently flows downhill toward Medical Lake before being pumped back uphill to the treatment plant. This aging configuration is nearing capacity, lacks redundancy, and does not support long-term growth. To address these limitations, the City is designing a new main line that will relieve the existing system, improve reliability, and support future development.

The wastewater utility is funded solely through user fees and an excise tax. A utility rate study is underway to evaluate whether current revenues are sufficient to maintain operations, support ongoing maintenance needs, and fund necessary capital improvements. This work will help ensure the long-term financial sustainability of the wastewater system and its ability to meet the City's future service needs.

Stormwater

The City of Medical Lake manages stormwater through five drainage zones that direct runoff to Medical Lake, Deep Creek, Silver Lake, or Tule Pond, reflecting the natural topography and historic flow patterns of the area. As development adds roofs, parking lots, and paved surfaces, stormwater runoff increases in volume and carries pollutants such as oils, automotive fluids, and trace metals that require treatment before entering natural water bodies.

Where possible, the City relies on natural filtration, such as vegetated swales, to remove contaminants prior to discharge. Some older outfalls to Medical Lake include oil-water separators installed under best practices at the time, but these systems are limited in effectiveness. The City is now designing improved natural filtration systems for all stormwater outfalls to better treat runoff before it reaches local lakes and streams.

Historically, stormwater has not been operated as a utility, and no fees have been collected to maintain or upgrade existing infrastructure. As the system ages and regulatory expectations increase, the City is exploring the creation of a dedicated stormwater utility to provide sustainable funding for maintenance, water-quality improvements, and necessary capital upgrades. This work is also driven by the need to reduce infiltration and inflow into the wastewater collection system, which increases treatment demands and reduces system capacity.

Solid Waste Collection

The City of Medical Lake contracts with Sunshine Disposal and Recycling for curbside collection and disposal of solid waste and recycling. The service is competitively bid at regular intervals to ensure fair rates for customers. Because collection requires no City-owned capital infrastructure, customer rates reflect only the cost of providing the service.

The City also contracts with the City of Cheney for yard-waste disposal. Residents deposit yard waste at the City Maintenance facility, where it is collected and transported by Cheney for proper disposal. This partnership allows Medical Lake to provide an additional waste-reduction service without the cost of operating its own green-waste program.

Energy

Avista Utilities provides electricity and natural gas service to the City of Medical Lake and surrounding area. Avista is a private utility that adjusts rates to reflect changes in the cost of producing and delivering electricity or natural gas to the consumer. Fees are charged to cover the cost of extending service to new development or new customers. Avista indicates that it does not anticipate any difficulty providing service to meet the demand generated by expected growth in the Medical Lake area.

Avista has a franchise agreement with the City to locate their lines in the public right-of-way.

Medical Lake values opportunities to utilize renewable sources of energy. The City owns and operates a solar array at the Wastewater Treatment Plant to offset energy costs.

Telecommunications

Telecommunications services in Medical Lake are provided by several private carriers offering a mix of telephone, internet, cable, and fiber-optic services. Major providers include Comcast, Ziply Fiber, CenturyLink/Lumen, and Davis Communications, each operating under franchise or lease agreements with the City that allow the placement of lines, conduit, and equipment within public rights-of-way. Additional wireless and radio communication infrastructure is supported through equipment located on the City's water tower and other utility structures.

These providers deliver a range of broadband speeds and service options, and recent private-sector investments have expanded fiber availability across the West Plains. While the City does not own or operate telecommunications utilities, it plays an important role in permitting, right-of-way management, and facilitating infrastructure improvements that support economic development, remote work, public safety communications, and community connectivity. As demand for reliable broadband continues to grow, the City will work with providers to encourage system upgrades, improve service reliability, and ensure telecommunications infrastructure keeps pace with residential and commercial development.

Chapter 4: Education

Schools

Medical Lake School District serves approximately 1,720 K-12 students. The district is broader than the Medical Lake city limits and includes Fairchild Air Force Base. In addition to elementary, middle, and high schools, the District office is located in the City as well as an early learning program and the Wellness Center.

Over the past several years, the School District has faced significant challenges from wildfire-related community trauma to funding uncertainties and aging facilities. Today, the district is stabilizing through new grants, curriculum updates, and continued levy support. Looking forward, its most urgent needs include facility modernization, sustained mental health services, stable funding, and ongoing wildfire recovery support for students and families.

The Wellness Center is a community-focused mental health and wellness hub designed to support students, families, and the broader Medical Lake community. It operates as part of the district's integrated approach to student and family well-being.

Hallett, the elementary school within the City of Medical Lake is at capacity. The District has faced challenges to address this issue because Michael Anderson, the elementary school on Fairchild Air Force Base, is under capacity. The current funding structure does not allow money to be used for additional classroom space in Medical Lake, despite the fact that non-military families cannot utilize the school on base. However, this issue is being addressed in the State legislature.

Early Learning

The YWCA operates an Early Childhood Education and Assistance Program (ECEAP) in Medical Lake that provides full-day early education, nutritious meals, health screenings, and family support services to prepare children for kindergarten.

Library

Medical Lake Library is part of the Spokane County Library District that provides access to more than 1.5 million titles in many formats. Open four days a week, The Library's knowledgeable employees help customers of all ages navigate the information they are looking for. The 4,000 square foot building, owned by the City of Medical Lake is located on the northwest corner of East Herb Street and South Brower Street. The Library is a strong supporter of and contributes to economic growth with resources providing guidance for those starting businesses or exploring grant funding.

Recognizing that a child's first teacher is their parents, the Medical Lake Library focuses on regular family programs that introduce important literacy, STEAM (science, technology, engineering, art, and math), and social skills that prepare children for kindergarten and future academic success. Family Storytimes demonstrate early learning techniques that parents can use at home to continue building on these skills in everyday interactions and help their children be kindergarten ready. Storytime is also an opportunity for parents to connect with one another in creating a supportive community.

The Library works with Medical Lake schools and actively participates in literacy and STEM nights by sharing information about the resources and services available to families and students of all ages. Field trips and tours are also offered by the Library.

Located southeast of the city's central business district, the building lacks visibility from a well-traveled street. Increasing public awareness of the physical building and the multitude of resources available is an ongoing challenge.

Recreation

For many years the Parks and Recreation Department provided youth sports. Over the last two years, with additional staff, the department has been able to expand youth programs along with adding teen programs and adult sports. After school programs, summer camps, and community events have been added, including Linger at the Lake, a four-concert summer series.

Apart from the School District, which provides after school sports and clubs, and West Plains Little League, Medical Lake Parks and Recreation is the main provider of activities for youth in the immediate vicinity. Medical Lake plays an important role in creating an early experience for children in recreational sports that leads to their participation in school sports.

Youth programs for local residents also create a ripple effect that makes our community more attractive to visitors. A strong recreation pipeline helps the City host more tournaments, races, camps, and festivals. For instance, Medical Lake participates in 4 Rec Youth Sports, a multi-jurisdiction collaboration that provides competitive volleyball, basketball, flag football, and soccer. Games and playoffs that are held in Medical Lake bring in families from the surrounding area, which brings revenue to local businesses.

The City acknowledges that community health and wellness are inextricably linked to access to parks and open space, engaged citizens, and the opportunity for all people have access to recreation programs. Knowing how vital these programs are, the City will continue to expand programs for all ages and abilities. However, indoor programs are currently limited by the facilities available. The City depends on School District facilities for indoor sports, after school programs, and any event that exceeds the size of the small auditorium on the upper floor of City Hall.

The City will look for opportunities to develop a community center or recreation center to help address the shortage of facilities that limits available programs. Partnering with the School District would be beneficial for both organizations and could make such a project more achievable.

Part Two: The Place

Chapter 5: Land Use

Land Use establishes how Medical Lake will guide growth, development, and reinvestment over the 20-year planning horizon. It sets policy direction for the location, type, and intensity of land uses while ensuring consistency with the City's adopted zoning regulations, infrastructure capacity, and environmental protections.

This chapter fulfills the Growth Management Act (GMA) requirement for a land use element by identifying land use designations, establishing expectations for density and intensity, and coordinating land use with housing, transportation, capital facilities, parks, and climate resilience planning. The policies in this chapter are implemented through the City's zoning and development regulations adopted in Title 19 of the Medical Lake Municipal Code.

A Brief History of Land Use in Medical Lake

Medical Lake's land use pattern reflects its evolution from a compact lakeside community into a diverse small city serving residential, institutional, and regional functions. Early development clustered around the downtown core and the lake, with closely spaced homes, civic buildings, and local businesses connected by a walkable grid.

As the community expanded, residential neighborhoods developed outward, incorporating schools, parks, and public facilities. Over time, changes in housing demand and development practices introduced larger residential lots, separated land uses, and automobile-oriented commercial areas, particularly along SR 902.

State institutions have also played an important role in shaping Medical Lake's land use and regional identity. Eastern State Hospital, Lakeland Village, and Westlake were established on large campuses at the community's edge, reflecting historic patterns of institutional siting that prioritized separation, access to open land, and self-contained facilities. These campuses introduced significant public employment, specialized services, and long-term land holdings into the city, influencing infrastructure investments, surrounding development patterns, and regional connections. While distinct from surrounding residential neighborhoods, these institutions remain integral to Medical Lake's character and continue to shape land use considerations related to transportation, utilities, public services, and long-term planning.

Today, Medical Lake's land use pattern presents both challenges and opportunities: preserving established neighborhoods and natural amenities while allowing for housing diversity, economic vitality, and reinvestment in downtown and mixed-use areas.

Where We Are Today

Urban Growth Area and Growth Capacity

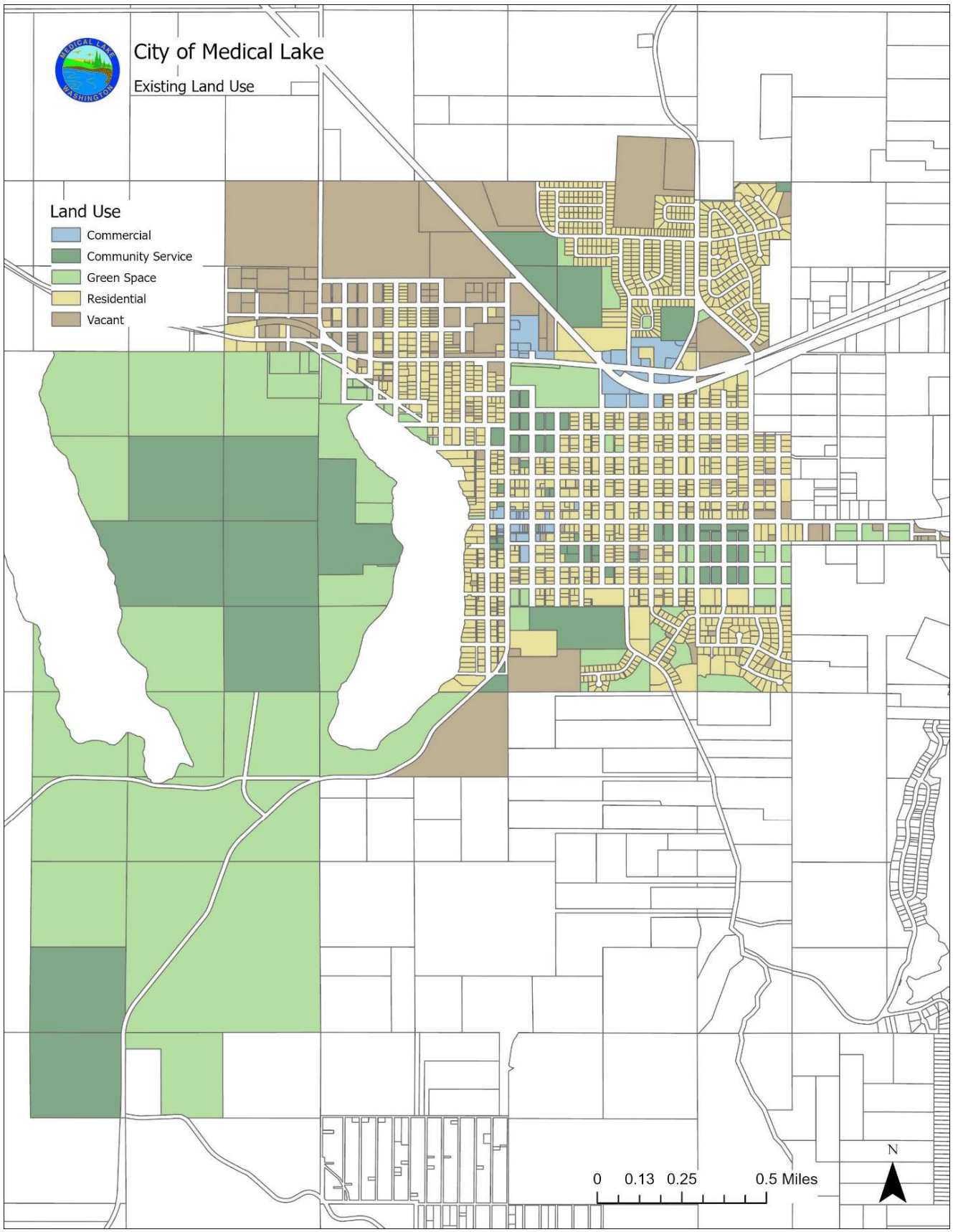
Medical Lake is a fully-planning city under the GMA, with an established Urban Growth Area (UGA) that defines where urban-level development and services are expected. The City's UGA provides sufficient land capacity to accommodate forecasted population, housing, and employment growth over the planning period through a combination of vacant land, redevelopment opportunities, and incremental infill.

Concentrating growth within the UGA supports efficient use of infrastructure, reduces pressure on environmentally sensitive lands, and aligns with countywide planning policies.

Existing Land Use Pattern

The city's existing land use pattern includes established low-density residential neighborhoods, medium-density residential areas located near downtown and commercial services, and a walkable downtown core that integrates commercial, civic, and residential uses. Mixed-use corridors accommodate a blend of residential and commercial development, while public facilities, such as schools, utilities, parks, civic buildings, and state institutional campuses including Eastern State Hospital, Lakeland Village, and Westlake, serve as important community anchors and regional employment centers. Open spaces, shoreline areas, and trail systems further define Medical Lake's character and contribute to its quality of life. While Medical Lake remains predominantly residential, demand for greater housing choice, expanded services, and more flexible development patterns continues to grow.

Map 1. Existing Land Use



Land Use Framework and Zoning Alignment

The City's Comprehensive Plan land use framework is implemented through the zoning districts and development standards adopted in Title 19 of the Medical Lake Municipal Code. These regulations establish clear expectations for allowed uses, housing types, density, and development form. These new zoning districts are depicted on Map 11 Zoning Districts (page 73).

Low-Density Residential (LDR). Intended to preserve and expand neighborhoods characterized by detached single-family housing. This designation also supports middle-income housing through accessory dwelling units, group living, and cottage housing, consistent with adopted zoning standards.

Medium-Density Residential (MDR). Intended to preserve and enhance older residential areas near commercial centers and services. This designation allows townhouses, plexes, cottage housing, and multi-dwelling developments to support housing diversity and efficient land use.

Central Business District (CBD). The CBD is intended to preserve and enhance downtown as a compact, walkable, mixed-use center. Commercial uses, housing, offices, services, and civic spaces are integrated vertically and horizontally, with pedestrian-oriented design standards.

Mixed-Use (MU). Mixed-Use areas accommodate larger-scale residential and commercial development, supporting housing, employment, services, and regional access. These areas provide flexibility for evolving land use needs while emphasizing connectivity and design quality.

Public Facilities (PF). This designation recognizes the distinct nature of public services and institutional uses, including utilities, schools, parks, civic buildings, and essential public facilities, including the State institutions.

A Vision for Medical Lake's Land Use Future

Medical Lake envisions a future where land use decisions reinforce the city's small-town identity while adapting to change. Neighborhoods remain livable and connected. Housing options serve residents at all stages of life. Downtown thrives as the heart of community life. Natural features and public spaces are protected and integrated into development. Growth is intentional, equitable, and supported by public investment.

Our Path (Goals and Strategies)

Goal A – Direct Growth to the Urban Area

- Guide growth to designated urban areas to efficiently use infrastructure and protect natural resources.

Goal B – Support Housing Choice and Neighborhood Stability

- Encourage a full range of housing types while ensuring compatibility with existing neighborhoods.

Goal C – Strengthen Downtown and Mixed-Use Areas

- Promote walkable, mixed-use development that supports local businesses, housing, and community life.

Goal D – Preserve Community Character and Environmental Assets

- Ensure development reflects Medical Lake's small-town form, lake setting, and natural landscape.

Goal E – Align Land Use With Public Investment

- Coordinate land use decisions with transportation, utilities, parks, capital facilities, and climate resilience planning.

Priority Actions

Zoning Implementation and Updates

- Update land use and development regulations to maintain consistency with the Comprehensive Plan.
- Amend land use and development regulations as needed to comply with changes in state law.

Infill, Redevelopment, and Housing Choice

- Identify and prioritize areas suitable for infill and redevelopment to make efficient use of land and existing infrastructure.
- Amend zoning and development standards, where needed, to allow and support a range of housing types, including accessory dwelling units, cottage housing, townhouses, plexes, and multi-dwelling developments, in locations served by utilities and public services.

Downtown and Mixed-Use Vitality

- Adopt and apply zoning, design, and development policies that support reinvestment in downtown and mixed-use areas.
- Encourage adaptive reuse and mixed-use development that integrates housing, commercial, and civic uses in walkable, pedestrian-oriented patterns.

Chapter 6: Transportation and Mobility

This Transportation and Mobility chapter supports housing and land use strategies for compact, connected growth by planning for a multi-modal system. Together, these strategies will help to reduce vehicle miles traveled and consequently greenhouse gas emissions. It complements the parks and recreation system by creating connections to trails and other facilities. Along with the Transportation Master Plan, it informs the City's Capital Improvement Plan and Transportation Improvement Program. This chapter aligns with Spokane County Countywide Planning Policies, the Spokane Regional Transportation Council's Horizon 2050 Plan, Spokane Transit Authority's Connect Spokane Plan, and advances West Plains collaboration to deliver safe, reliable, people-centered mobility for Medical Lake.

A Brief History of Mobility in Medical Lake

Medical Lake's transportation story began with a walkable street grid centered on the historic core and lakefront, shaped initially by rail access and later by the establishment of Fairchild Air Force Base to the north. The presence of the Base created strong and lasting regional travel demands, driving the development and improvement of north-south transportation connections between Medical Lake, Fairchild, and the broader Spokane area. As the community expanded, newer subdivisions introduced cul-de-sacs and longer blocks that reduced connectivity compared to the original grid. Today, SR 902 functions as the city's primary regional corridor, linking residents to employment, schools, services, and recreation across the West Plains, while downtown remains the everyday hub for local trips and community events.

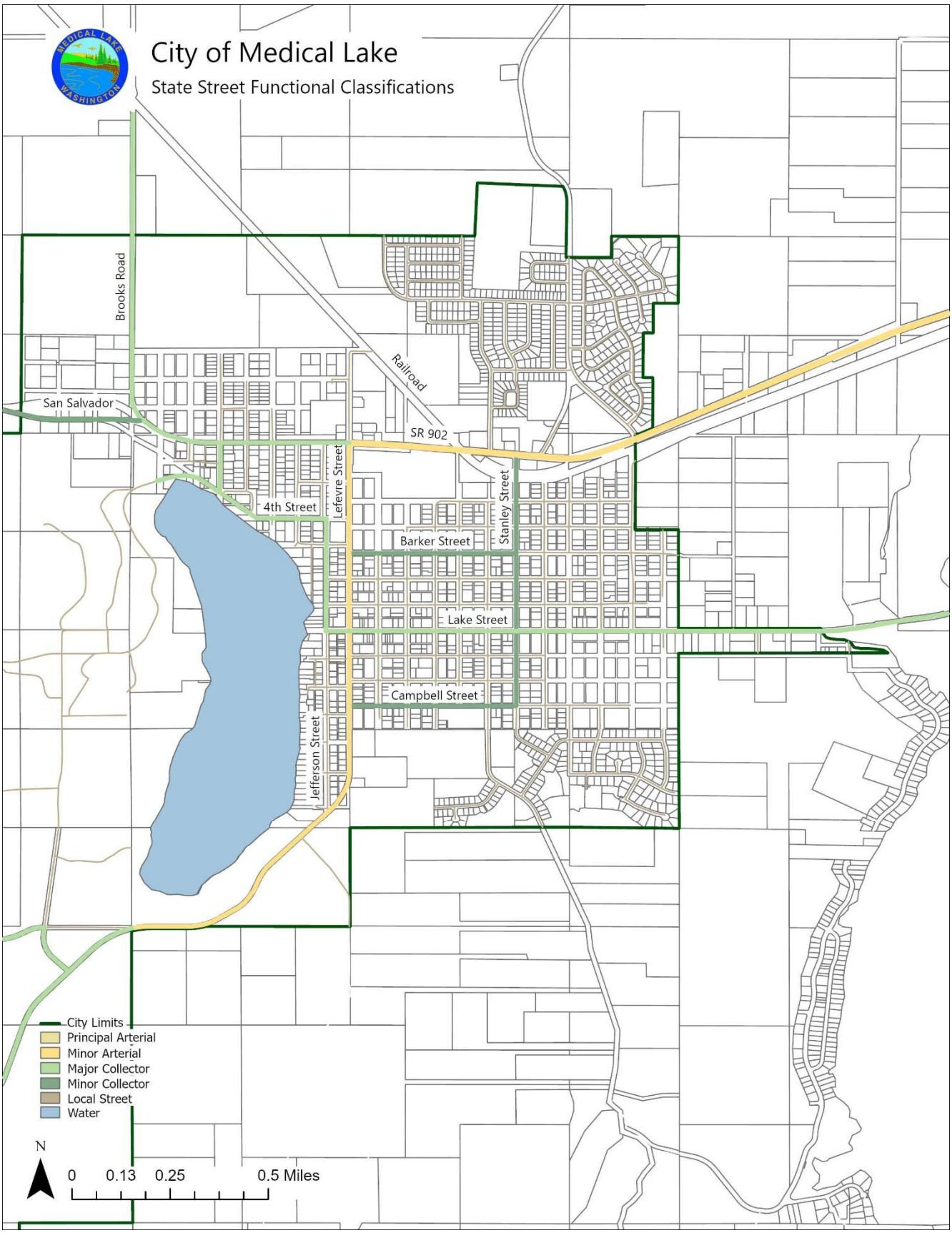
Where We Are Today

Medical Lake's transportation needs are shaped by its small-town layout, proximity to Fairchild Air Force Base, and regional job centers. Most residents commute by car with an average one-way trip of about 20 minutes; roughly a third of trips are local and the rest connect to greater Spokane, underscoring the importance of both safe local streets and reliable regional links.

What Our Transportation Network Looks Like

The existing roadway system consists of State Route 902 (arterial), several collectors (Brooks, W 4th, Barker, Jefferson, Campbell, Stanley, and Lake), and local streets. (See Map 2, State Street Functional Classifications) Older neighborhoods have a complete grid of streets while newer subdivisions include cul-de-sacs and a limited number of access points, which has created connectivity issues that the City is now needing to correct. SR 902 is the primary regional connection, yet the lack of safe crossings has created a divide between old and new neighborhoods. Lefevre Street is the City's main north-south spine and leads residents and visitors to Waterfront Park.

Map 2. State Street Functional Classifications



Traffic Operations and Capacity

The City of Medical Lake establishes Transportation Level of Service (LOS) standards to guide transportation planning, capital investment, and project prioritization in a way that supports public safety, accessibility, system preservation, and consistency with the Comprehensive Plan. Rather than focusing solely on congestion or roadway expansion, the City applies a multimodal, performance-based LOS framework that emphasizes maintaining the transportation system in a state of good repair and providing safe, reliable access for all users. For streets and roadways, LOS is defined primarily through pavement condition and functional performance, with a goal of maintaining an average Pavement Condition Rating of approximately 65 or higher. Preventive maintenance, resurfacing, and targeted rehabilitation are considered LOS-supportive, while capacity expansion is deprioritized unless necessary for safety or access. Multimodal LOS standards focus on continuous, safe, and ADA-compliant pedestrian access; connected and visible bicycle networks; and the preservation, accessibility, and connectivity of shared-use paths and trails. The City does not apply fixed vehicular LOS A–F standards systemwide, instead conducting operational analysis on a case-by-case basis to address safety, emergency access, or site-specific impacts using low-cost, context-sensitive solutions. Freight routes and rail crossings are evaluated based on safety, access, pavement durability, and land use compatibility rather than throughput alone. The Transportation Improvement Program (TIP) serves as the primary implementation tool for LOS standards, prioritizing maintenance, accessibility, safety, multimodal connectivity, and system preservation. LOS performance is monitored through pavement data, field assessments, and safety indicators. Standards may be refined over time to respond to changing conditions, funding availability, and updated guidance while remaining aligned with Comprehensive Plan goals.

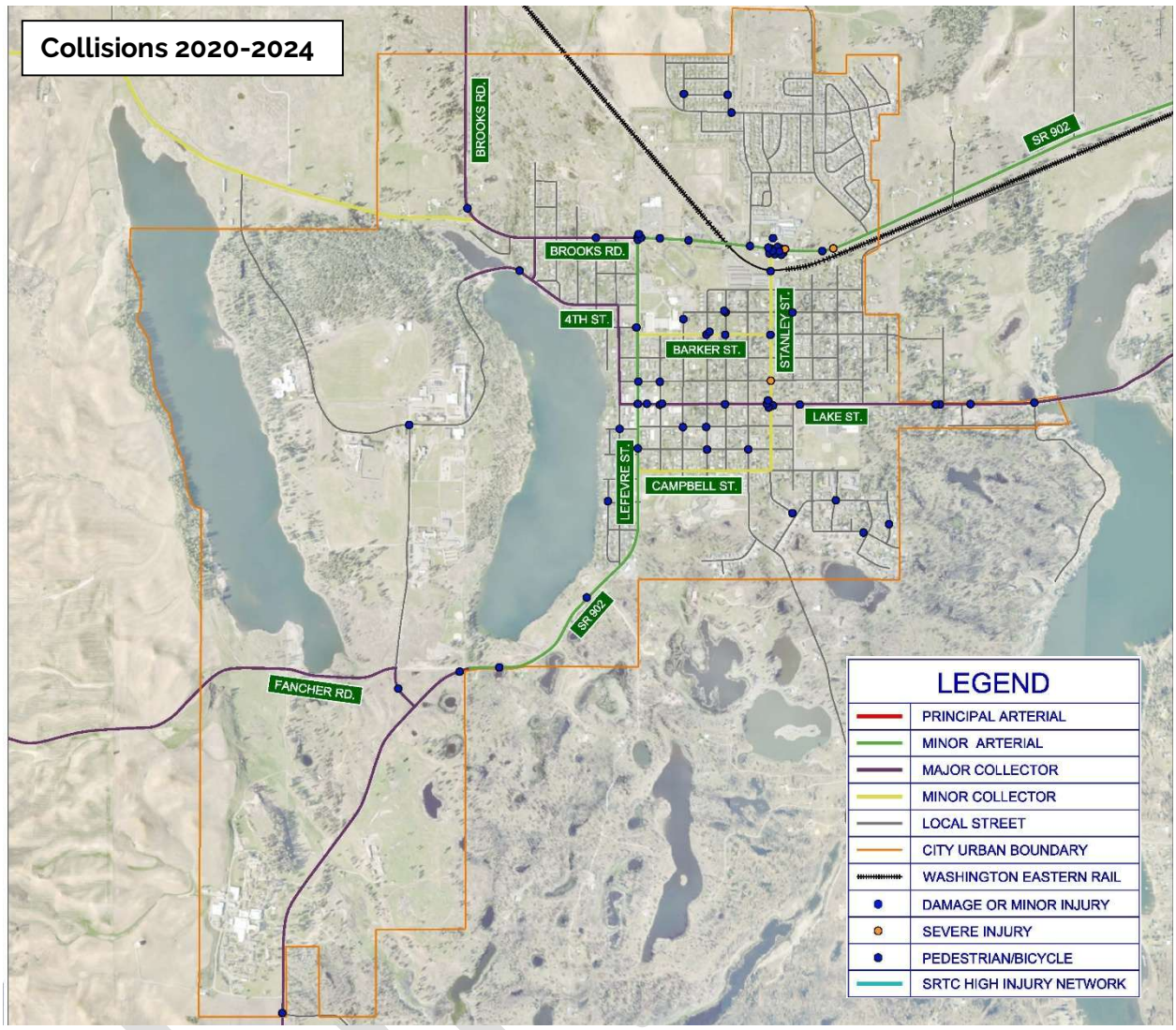
Key Safety and System Issues

Between 2020 and 2024, 83 reported collisions occurred citywide. 57% of the collisions were at the intersections of Lake & Stanley, SR 902 & North Stanley, and SR 902 & Lefevre. (Map 3, Traffic Collisions) The TMP recommends low-cost visibility and control enhancements now and roundabouts long-term at select locations.

Community members report the greatest comfort using shared-use paths or protected/buffered facilities. Medical Lake's trails and pathways are well-loved and could be expanded. Meanwhile, sidewalks are incomplete in older areas and sometimes bicycle lanes exist on only one side of the street. Incrementally completing the pedestrian and bicycle network will provide more opportunities for safe travel throughout the City. Safe Routes to School are especially important for making student walking and bicycling safer and more direct. The City has prioritized sidewalks and bike lanes near schools. The most recent project was street improvements to Barker Street.

SR 902 is the most heavily vehicle traveled street in the City. There are public bus stops on both sides of the street, yet it has no sidewalks on the south side, no bicycle lanes, and lacks safe crossings for pedestrians. The community will benefit greatly from complete street improvements along this corridor. (See Map 6, Current Street and Intersection Level of Service)

Map 3. Traffic Collisions



Freight and Rail

SR 902, Brooks Road, and Espanola Street support regional and local truck movements at T-3 freight levels, representing moderate freight activity that primarily supports local and regional access, rather than serving as high-volume freight corridors. The Washington Eastern Gateway rail line crosses SR 902 at grade, introducing design and safety considerations that influence roadway operations and emergency access.

Transit Overview

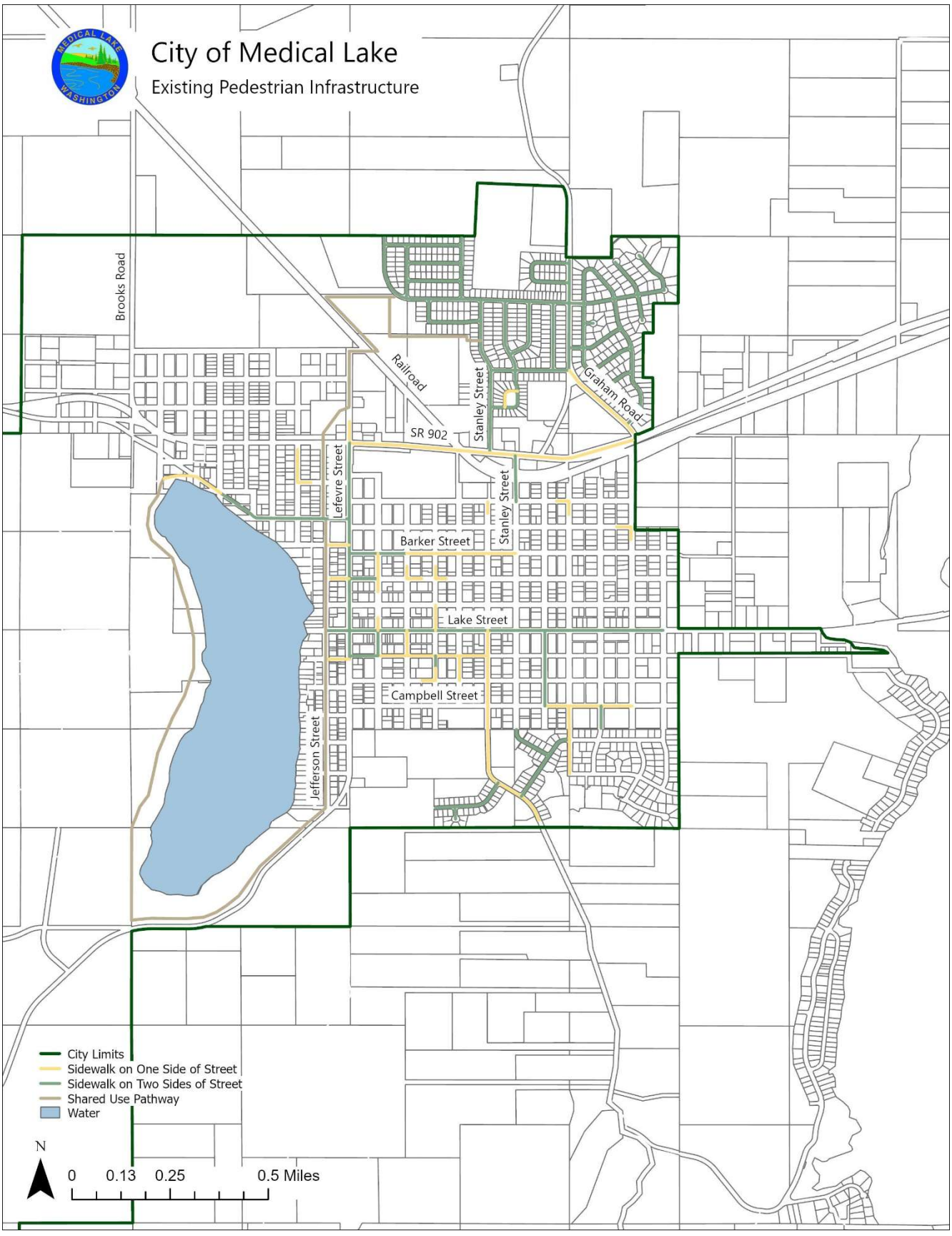
Spokane Transit Authority (STA) Route 62 provides hourly service, connecting Medical Lake to the West Plains Transit Center. Opportunities exist to enhance stops, lighting, shelters, and ADA access. The TMP identifies Transit-Oriented Development opportunities near Downtown and Harvest Foods.

Active Transportation Network

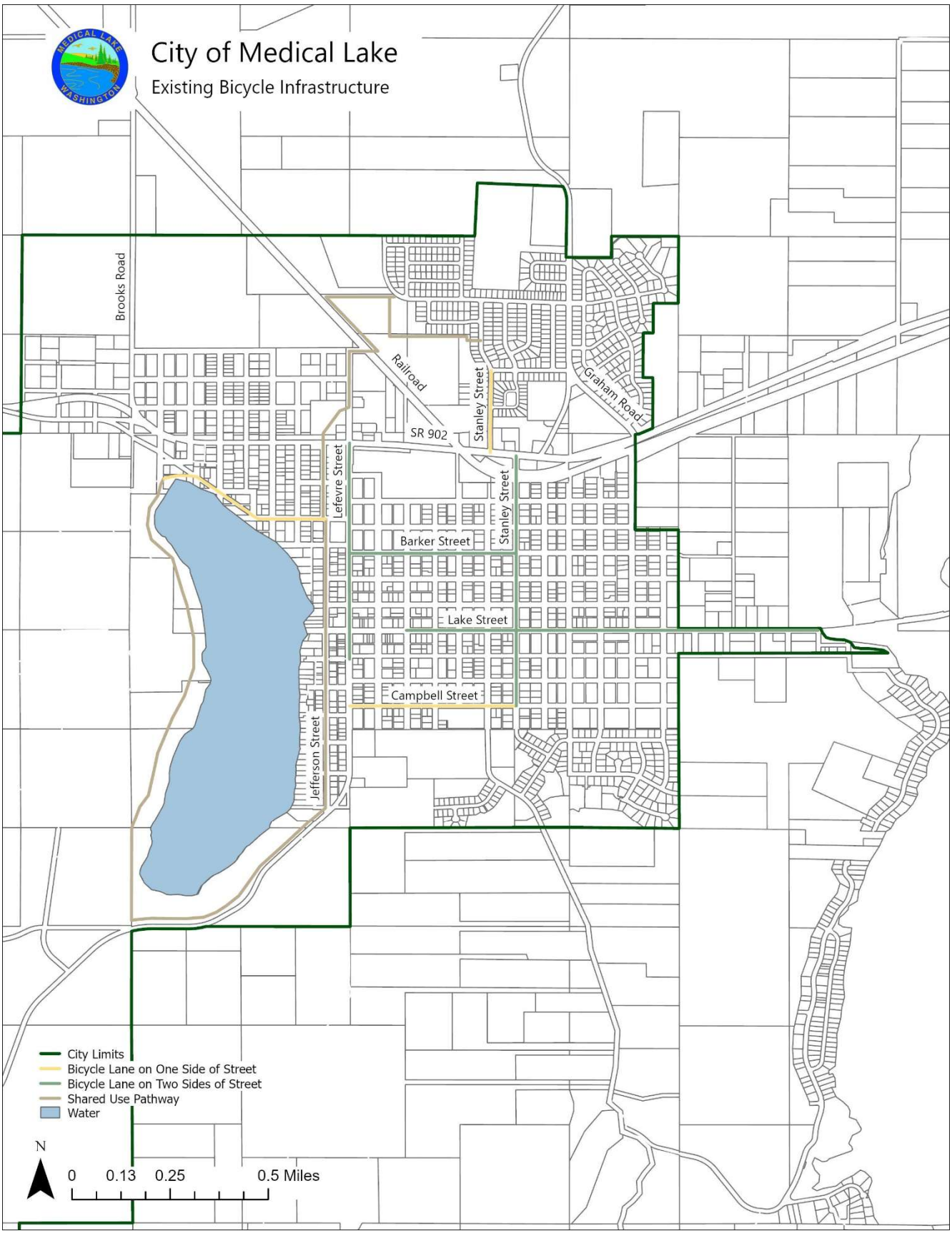
Current conditions reveal limited sidewalk continuity on older streets. (See Map 4, Existing Pedestrian Infrastructure) The existing pathway network is highly used and valued. Cycling comfort analysis shows strong public preference for shared-use paths and protected facilities. Existing

cycling infrastructure is incomplete. (See Map 5, Existing Bicycle Infrastructure) School routes lack safe sidewalk or bike network continuity.

Map 4. Existing Pedestrian Infrastructure



Map 5. Existing Bicycle Infrastructure



A Vision for Medical Lake's Mobility Future

An ideal mobility future in Medical Lake is people-first: simple routes, fewer conflicts, and designs that reflect a small town where people move safely and comfortably every day. This ideal future allows kids to walk or bike to school on connected, well-lit sidewalks and paths with safe crossings at visible, predictable intersections. It allows Seniors and people with disabilities to reach parks, clinics, and shops without needing to drive. Downtown and the lakefront are easy to reach on foot and by bike, and streets feel calm, welcoming, and distinctly "Medical Lake." Transit is convenient, with upgraded stops and comfortable first/last mile access. Regional connections remain strong along SR 902, with safer intersections and crossings.

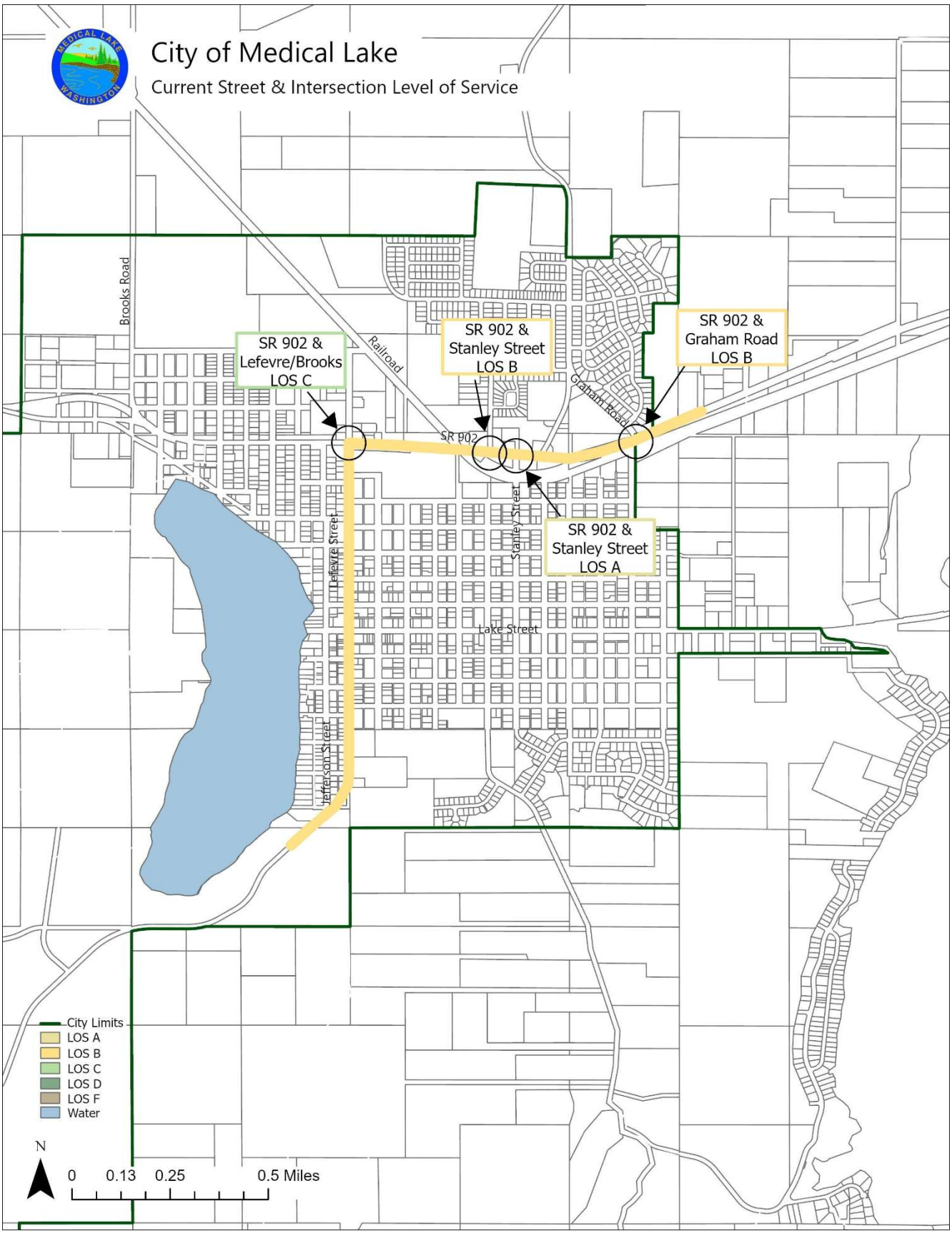
Future Traffic Forecasts

As set forth in the Medical Lake Transportation Master Plan, future traffic growth in the City is forecasted to be steady and manageable through the 2050 planning horizon, with no immediate need for major roadway capacity expansion. Traffic volumes are estimated to increase primarily due to planned residential growth and baseline regional growth. More substantial congestion is projected only at complete development of all existing and expanded urban growth areas, in which traffic volumes could roughly double and selected segments and intersections along SR 902 would exceed capacity thresholds. Medical Lake can prioritize multimodal, safety, and intersection improvements in the near and mid-term, while preserving right-of-way and planning tools for potential long-term capacity needs if future growth warrants them.

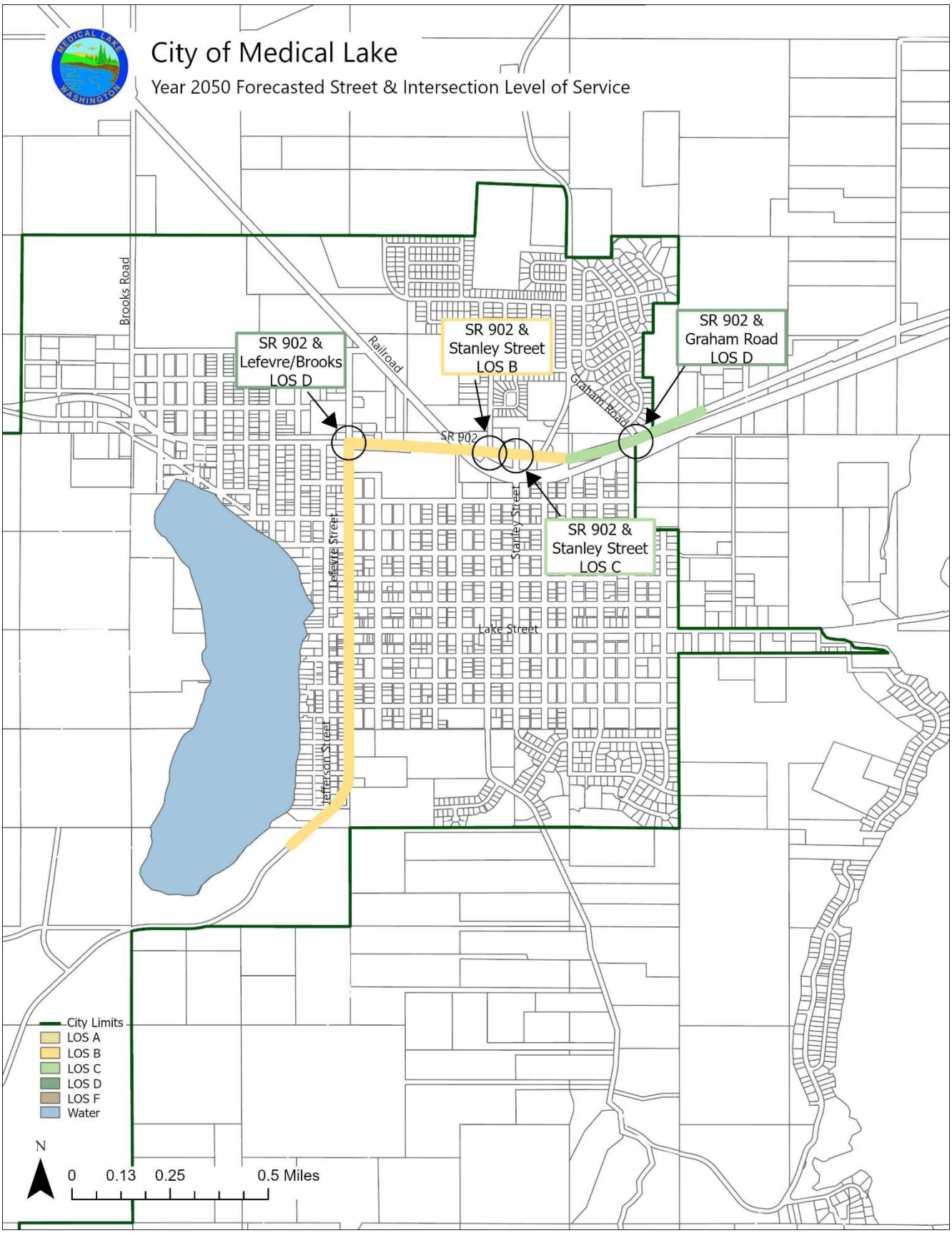
Intersection Needs

Intersection needs in Medical Lake are primarily long-term and location-specific, with current operations generally performing well but future growth creating targeted pressure at key junctions. Near-term needs focus on low-cost safety improvements, including improved signage, visibility enhancements, pavement markings, and traffic control consistency at these locations. In the long-term, several SR 902 intersections, particularly Lefevre Street/Brooks Road, Stanley Street South, and Graham Road, are projected to have substantial delay and congestion. To address both safety and capacity over time, single-lane multimodal roundabouts are the recommended long-term solution at key intersections, offering improved safety, more efficient traffic flow, and better accommodation of pedestrians and bicyclists.

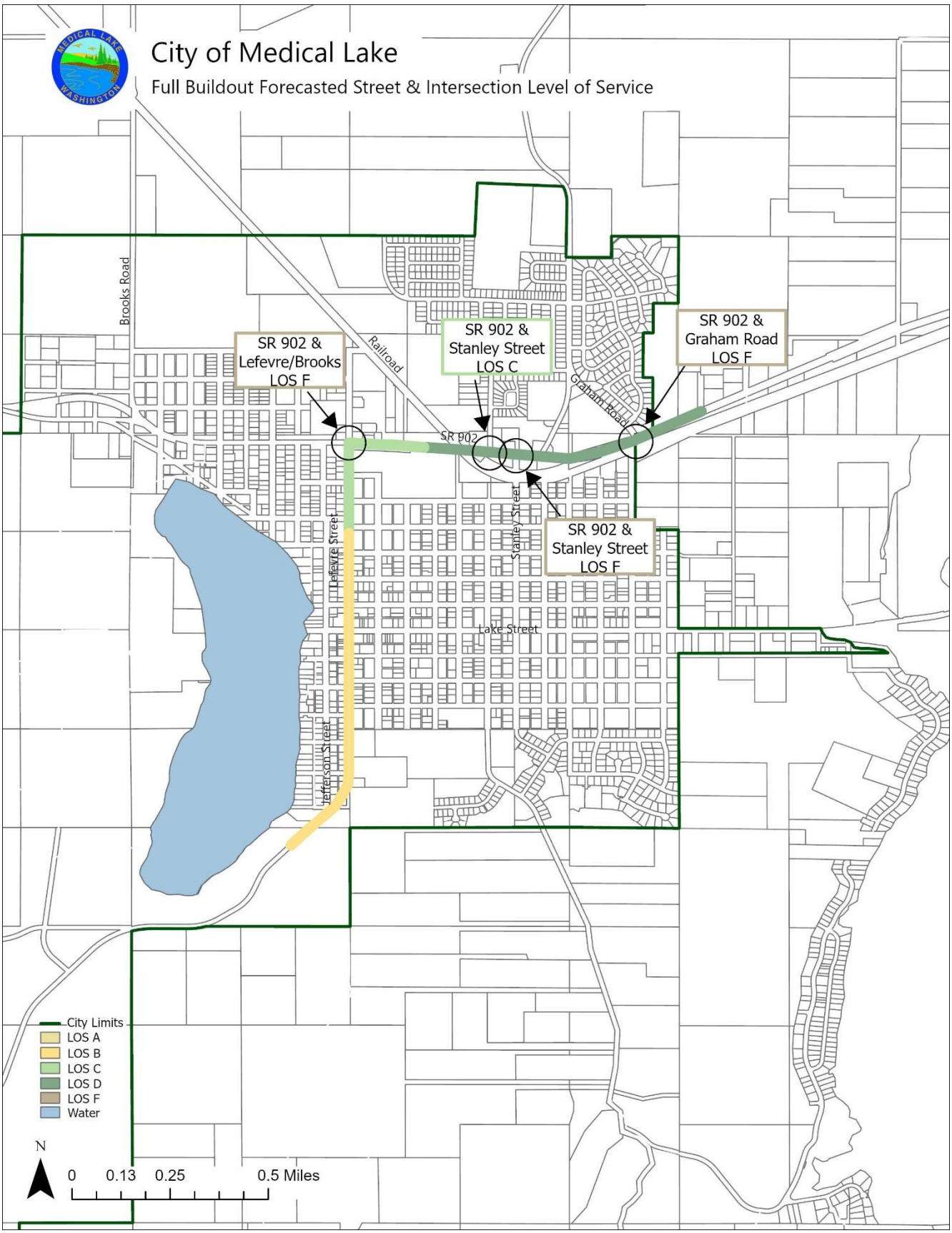
Map 6. Current Street & Intersection Level of Service



Map 7. Year 2050 Forecasted Street & Intersection Level of Service



Map 8. Full Buildout Forecasted Street & Intersection Level of Service



Level of Service

A Level of Service (LOS) for mobility creates a clear, measurable standard for how well Medical Lake's transportation system performs. The ability to evaluate congestion, accessibility, and mobility, ensures that new development does not degrade the system below adopted thresholds. LOS guides consistent, data-driven decisions about infrastructure investments and development review.

State Route 902 is a State Highway of State Significance per the Washington State Department of Transportation. With this designation comes the performance capacity rating of LOS D for urban areas. LOS D is when speeds begin to decline, the freedom to maneuver is restricted, and there is very little space between vehicles to absorb sudden disruptions. This means WSDOT is comfortable with these characteristics, but wants to prevent the route from dropping to an LOS F which involves severe congestion, stop-and-go conditions, and long delays.

The City recognizes that its older neighborhoods were developed without curbs and sidewalks and that retrofitting these areas can be costly and disruptive. Therefore, the LOS for pedestrian facilities is differentiated based on the age and function of the street network. The City's LOS prioritizes the provision for pedestrians and bicyclists on all arterial and collector streets, both existing and future. This supports safe and connected pedestrian and bicycle travel where traffic volumes and speeds are higher, while allowing flexibility for older local streets where full pedestrian facilities may not be feasible or necessary. In contrast, newer and developing areas are expected to meet modern standards, including the construction of curbs and sidewalks on all local streets, to ensure a complete and accessible network over time. This approach balances long-term community goals for walkability and safety with practical considerations related to existing development patterns and infrastructure constraints, while gradually improving pedestrian connectivity throughout the community.

Medical Lake will ensure that transportation facilities and services are adequate to serve new development at the time of occupancy, consistent with the concurrency requirements of the GMA. Concurrency is achieved when adopted Levels of Service (LOS) for mobility are maintained. During project review, the City will evaluate whether development impacts would cause LOS standards to be exceeded. If deficiencies are identified, improvements must either be constructed as part of the development, funded through impact fees or mitigation, or programmed and financially committed within the City's six-year Transportation Improvement Program (TIP) or Capital Improvement Program (CIP). This approach ensures that growth does not degrade the transportation system, aligns local investment with regional planning priorities, and supports a safe, reliable, and multimodal network for all users.

Arterial Streets	
Category	**Standard**
Vehicle Capacity	LOS D
Average Pavement Condition Rating (PCR)	≥ 70 PCR
Safety Performance	Zero Fatalities and ≤ 3 collisions in 12 months.
Emergency & Transit Reliability	No recurring access failures
Pedestrian Facilities	Continuous, ADA-compliant on ≥ 90% of segment

Bicycle Facilities	Dedicated or buffered facility where feasible
Intersections	Safe for all modes at Arterial and Collector Street intersections

Collector Streets	
Category	**Standard**
Vehicle Capacity	LOS C
Average Pavement Condition Rating	≥ 65 PCR
Safety Performance	Zero Fatalities and ≤ 2 collisions in 12 months
Emergency & Transit Reliability	No recurring access failures
Pedestrian Access	Sidewalks on ≥ 85% of segment
Bicycle Connectivity	Low-stress shared or dedicated network
Intersections	Safe for all modes at Arterial and Collector Street intersections

Local Streets	
Category	**Standard**
Average Pavement Condition Rating	≥ 60 PCR
Safety Performance	No documented systemic hazards
Pedestrian Access	Existing Streets: Context specific
	Future Streets: Safe, continuous route on both sides of the street
Vehicle Speed Environment	Street design reinforces appropriate travel speeds

Financing Strategy

Medical Lake funds transportation improvements through a phased and grant-focused financing strategy that aligns investment with safety priorities, demonstrated need, and long-term affordability. Near-term projects are implemented through the City's six-year Transportation Improvement Program (TIP), which emphasizes low-cost safety, multimodal, and Safe Routes to School improvements that can be delivered incrementally. Safe Routes to School investments, such as sidewalks, crossings, lighting, traffic calming, and visibility improvements near schools, are prioritized for state and federal safety funding and coordinated with school district needs. Larger capital projects, including complete street corridors and intersection upgrades, are programmed through future TIP cycles and coordinated with the Capital Improvement Program. The Transportation Master Plan emphasizes leveraging state and federal grants, including Transportation Improvement Board (TIB) and WSDOT programs, to supplement limited local revenues, while preserving right-of-way and development setbacks to avoid premature roadway expansion. This approach allows the City to improve safety for students and families, advance walking and bicycling, and manage long-term transportation needs in a fiscally responsible manner.

Our Path (Goals and Strategies)

Goal A – Make it Safe.

- Design for vulnerable users near schools, parks, downtown, and along SR 902.
- Apply Safe-Systems and Complete Streets principles to reduce conflicts and manage speeds.
- Target high-collision intersections with interim fixes now and roundabouts where warranted.

Goal B – Make it Connected.

- Close sidewalk gaps on classified streets.
- Build a citywide bicycle network emphasizing shared-use paths and buffered/protected lanes.
- Improve wayfinding for streets and trails.
- Complete Safe Routes to School.

Goal C – Make it Reliable.

- Maintain Level of Service standards for all street types.
- Coordinate with SRTC, WSDOT, Spokane County, and STA to maintain strong regional mobility.

Goal D – Support Community and the Local Economy.

- Use street design to strengthen downtown and gateways.
- Improve access to parks, trails, and the waterfront to support recreation and tourism.
- Align land use and transportation to enable walkable, mixed-use places served by transit.

Goal E – Advance Health, Sustainability, and Equity.

- Make walking, rolling, and biking safe and convenient.
- Support EV readiness, transit access, and compact patterns that reduce emissions and enhance resilience.
- Remove barriers for seniors, youth, and people with disabilities.

Priority Actions

Safe Crossings and School Routes.

- Citywide program of high-visibility crosswalks, lighting, advance signage, and flashing beacons at key spots.
- Implement Safe Routes to School upgrades on corridors that serve local schools.

A Walk-Bike Spine on SR 902 and Lefevre.

- Deliver a complete street cross-section on SR 902 with a shared-use path and safer crossings.
- Provide continuous sidewalks on both sides of Lefevre.

Roundabouts Where They Work Best.

- Convert priority intersections to single-lane roundabouts over time: SR 902 and Lefevre/Brooks, SR 902 and Stanley, SR 902 and Graham, Lake and Stanley.

A Connected Neighborhood Network.

- Close sidewalk gaps and add buffered/protected bike facilities on key collectors to tie neighborhoods to downtown, schools, parks, and transit.

Transit Stop Upgrades and Transit Oriented Design Readiness.

- Partner with STA to add shelters, lighting, ADA connections, and bike parking.
- Ensure downtown and the commercial areas evolve in a transit-supportive, walkable pattern as opportunities arise.

Street Design Standards and Functional Class Updates.

- Adopt street design standards that codify Medical Lake's complete street cross-sections and intersection tools.
- Work with WSDOT on collector reclassifications to unlock grants and set expectations for frontage improvements.

Chapter 7: Capital Facilities

The City of Medical Lake is committed to responsible stewardship of public resources and long-term investment in the facilities that make the community safe, functional, and vibrant. This Capital Facilities chapter provides a roadmap for maintaining the systems that residents rely on every day, ensuring future generations benefit from infrastructure that is modern, resilient, and aligned with community values. The result will be a strong foundation for public services, safe infrastructure, and long-term community well-being.

A Brief History of Medical Lake's Public Infrastructure

For more than a century, Medical Lake has invested in the essential public facilities that shape daily life, including safe drinking water from local wells, streets that connect neighborhoods, parks along the shoreline and throughout the city, public buildings that serve generations, and schools central to community identity. Early water and wastewater systems laid the groundwork for gradual modernization, including expanded water storage, new lift stations, and construction of the Wastewater Treatment Plant. Over time, City Hall, the maintenance buildings, parks, and other public facilities have undergone incremental upgrades as resources allowed.

Medical Lake's more recent debt-free approach has encouraged careful planning, pay-as-you-go investments, and prudent stewardship of limited local revenues. State and federal grants have played a crucial role in extending the city's ability to deliver improvements such as street resurfacing, stormwater mitigation, and park enhancements. Together, these investments form the backbone of community life and ensure the services residents depend on remain safe, reliable, and resilient.

Where We Are Today

The Growth Management Act requires cities to inventory their capital facilities and demonstrate how they will continue to provide adequate public services as communities grow. Medical Lake maintains a wide range of facilities that support public health, mobility, recreation, education, and safety. The City's Capital Improvement Plan (CIP) and Facility Condition Reports (FCRs) provide detailed evaluations. The CIP outlines what major buildings, infrastructure, and equipment the City needs, when we will need them, and how they will be paid for. The FCR evaluates the physical state of buildings, utilities, and site infrastructure. It outlines the status of roofs, mechanical systems, electrical systems, ADA compliance, structural components, site access, and safety systems. These documents guide maintenance plans, capital budgets, and long-term investment decisions. The following summarizes current conditions and system needs.

Utility Infrastructure

Stormwater System. Stormwater infrastructure manages runoff from roofs, roadways, and other impervious surfaces, ensuring pollutants are filtered and drainage systems protect property and water quality. State law requires the city to manage and control stormwater, and FCRs identify system-wide needs related to lifecycle maintenance and targeted upgrades to support development and meet Ecology standards.

Wastewater System. Medical Lake's wastewater system collects and treats residential, commercial, and institutional effluent using lift stations, aeration structures, clarifiers, dewatering systems, and SCADA controls at the 2001 treatment facility. Ecology permits define pollutant limits and require continuous monitoring and reporting. FCR findings show roofing, HVAC, and structural components reaching the end of their useful lives.

Drinking Water System. The drinking water system includes the Lehn Road and Craig Road wells, a 1.5-million-gallon reservoir, several interties with surrounding systems, and miles of distribution pipe. Water is filtered, disinfected, and monitored to meet state quality standards. Facility assessments identify routine modernization needs related to pumps, telemetry, and distribution reliability.

Parks, Public Buildings, and Community Facilities

Medical Lake maintains City Hall, the City Hall Annex, the library, the historic Train Depot, multiple parks, and shoreline recreation areas. FCRs highlight the following lifecycle needs:

City Hall (last major renovation in 1978) requires substantial building system and compliance upgrades, including HVAC replacement, new windows and doors, roof improvements, and accessibility upgrades.

City Hall Annex (a repurposed Sears Catalog building) requires exterior building improvements to address aging materials and improve durability and appearance.

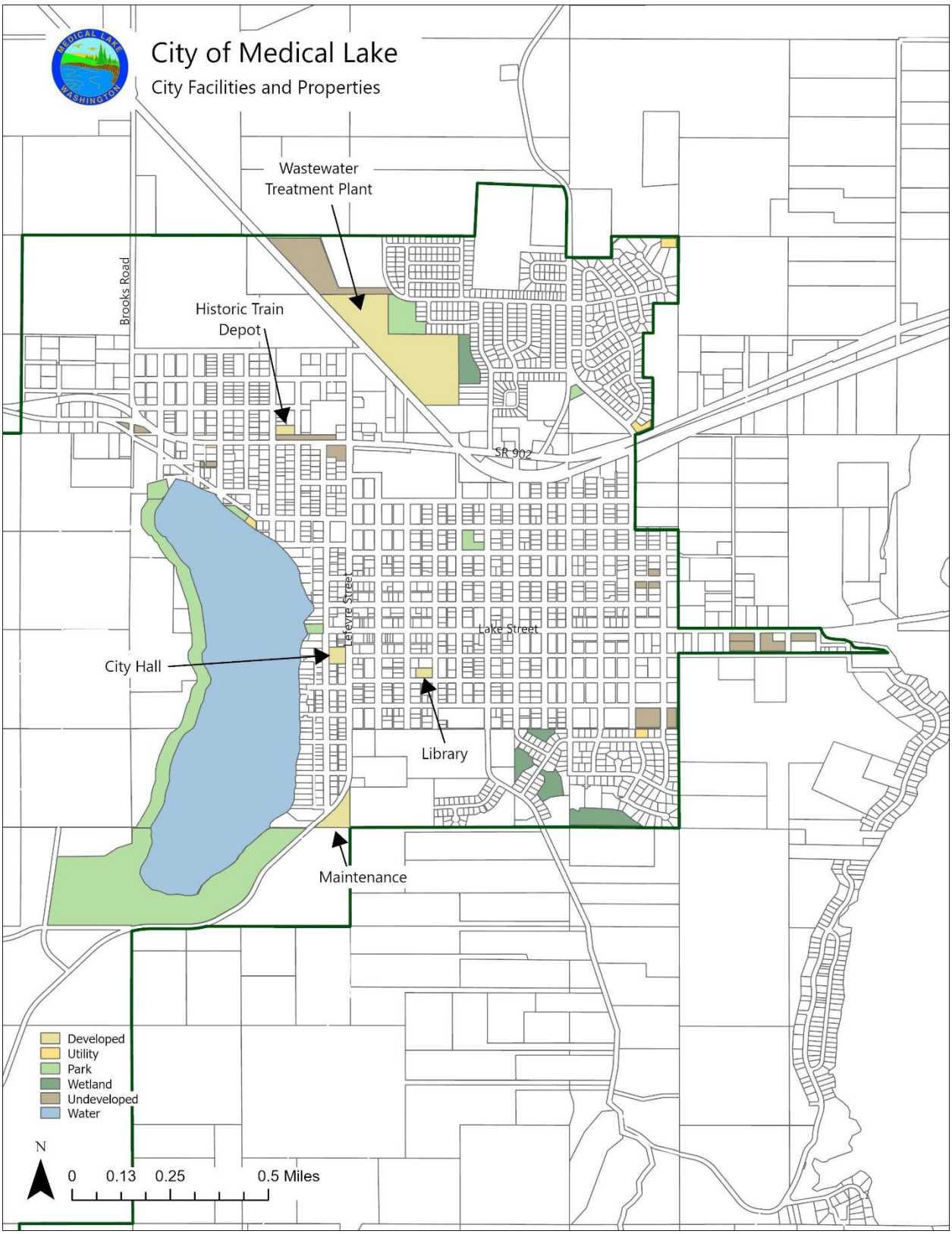
Maintenance Buildings require expanded and improved storage capacity to adequately support city operations and equipment needs.

Library requires exterior repainting, ADA access and egress corrections, parking lot replacement, HVAC and domestic hot water heater replacement, lighting and electrical system upgrades, fire alarm system replacement, and targeted sidewalk repairs.

Parks and waterfront areas require ongoing capital investment to maintain amenities, address deferred maintenance, and improve accessibility.

Historic Train Depot requires electrical system corrections, fire and life safety upgrades, deck and exterior repairs, plumbing and water heater replacement, and heating system upgrades.

Map 9. City Facilities and Properties



Transportation System

The transportation network includes SR 902, city arterials and collectors, neighborhood streets, sidewalks, the Medical Lake Trail, Fox Hollow Trail, and bicycle lanes. The annual Transportation Improvement Program (TIP) identifies planned street improvements and must remain consistent with the Comprehensive Plan. In 2024 the Transportation Improvement Board rated Medical Lake's pavement at PCR 62/100, and resurfacing over 18 miles of Medical Lake's 25 miles of roadway contributed to extending pavement life by 7–10 years. Building on recent preservation efforts, the City continues to address targeted, near-term transportation needs that support safety and long-term pavement performance. Current priorities include the Lefevre Street restriping project, which will restore effective lane delineation, improve multimodal safety, and better align roadway markings with current traffic patterns. The City is also coordinating the FEMA-funded repaving of Southlake Terrace, which will return fire-damaged infrastructure to pre-disaster condition while improving pavement quality in a key residential area. In addition, ongoing preservation and preventive maintenance efforts such as crack sealing, localized repairs, sidewalk improvements, and bicycle facility enhancements are essential to sustaining recent pavement condition gains, protecting prior investments, and gradually improving overall network performance. These projects support the City's broader goal of maintaining a safe, connected, and multimodal transportation system while efficiently extending the service life of existing infrastructure.

Public Safety Facilities

Law enforcement services are provided through an interlocal agreement with the Spokane County Sheriff's Office using a local police station for deputies and S.C.O.P.E. volunteers. Fire and EMS services are delivered by Spokane County Fire District #3, operating from Station 311 next to City Hall. Emergency management coordination and hazard preparedness rely on regional partnerships.

Fleet, Equipment, and Asset Management

The City maintains heavy equipment, generators, service vehicles, snow removal equipment, and utility machinery. The State Auditor requires asset inventories for all local governments. Routine replacement planning reduces lifecycle costs and ensures service reliability.

State Facilities

Medical Lake is home to three major state-operated facilities that collectively serve as a regional hub for mental health care, developmental disability services, and juvenile detention. The largest and most prominent is Eastern State Hospital, a psychiatric hospital established in 1891 that provides inpatient treatment for adults with severe mental illness. With roughly 370–375 beds, it serves patients from across eastern Washington, many of whom are admitted through court orders or involuntary commitment processes.

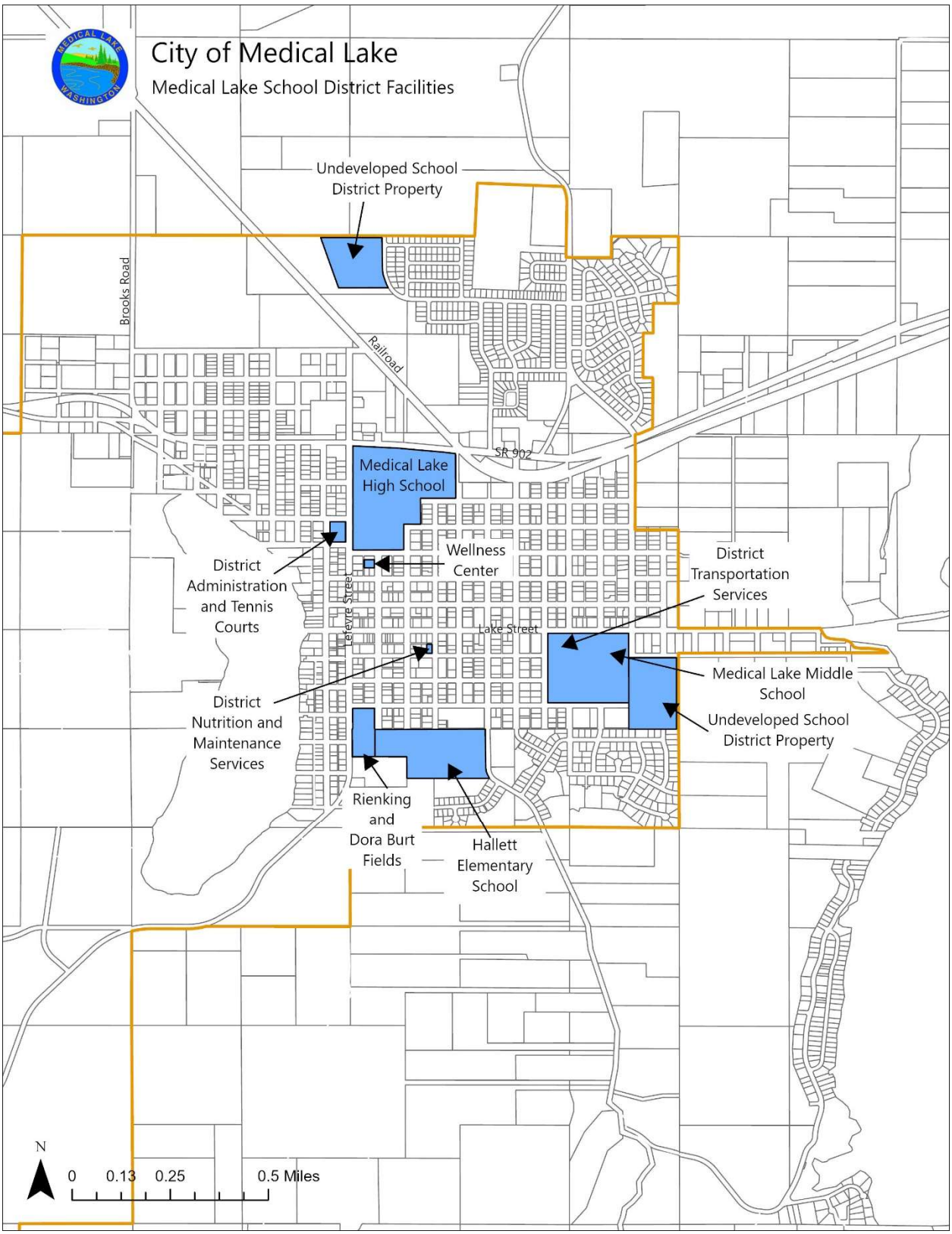
Lakeland Village is a long-standing state residential facility founded in 1914 that serves individuals with intellectual and developmental disabilities. It provides 24-hour care in a structured environment, combining medical support with habilitation programs designed to build life skills and promote independence.

Martin Hall Juvenile Detention Facility is a regional center that houses youth offenders from multiple eastern Washington counties.

Schools

The Medical Lake School District manages its own capital planning, but the City collaborates on long-range facility planning and maintains interlocal agreements for shared use of facilities. School District facilities include Hallett Elementary School, Michael Anderson Elementary School (on Fairchild AFB), Medical Lake Middle School, Medical Lake High School, the District Administrative Office, the Wellness Center, Rienking and Dora Burt Fields, the transportation building, and maintenance/nutrition services building. (See Map 10, Medical Lake School District Facilities)

Map 10. Medical Lake School District Facilities



A Vision for Capital Facilities

Medical Lake envisions a future with modern, resilient, financially sustainable public facilities that support safe mobility, clean water, reliable utilities, beautiful parks, and high-quality public services. Capital investments will maintain equitable service levels, adapt to emerging needs, and reflect the community's commitment to stewardship and long-term well-being. Public buildings will be accessible and welcoming, utility systems reliable and efficient, streets safe for all users, and parks well-maintained centers of recreation and civic life.

Level of Service

A Level of Service (LOS) for water, sanitary sewer, and stormwater systems is established to define clear, measurable standards for the capacity, reliability, and performance of essential public infrastructure, ensuring that these systems can safely support existing residents and future growth. By setting LOS standards, the City can determine whether utilities are adequate to meet demand, protect public health and the environment, and comply with regulatory requirements, such as maintaining water quality and preventing sewer overflows or flooding. LOS also provides a consistent framework for planning capital improvements, prioritizing investments, and requiring new development to contribute its fair share toward maintaining system capacity.

Water Service	
Category	**Standard**
Capacity	Maximum Daily Demand. As defined by the current Water System Plan
	Firm Source Capacity. 110% of MDD with largest source out
	Peak Hour Pumping. PHD met with pumps and storage
	Storage Volume. Reservoir capacity to meet peak hourly demands + fire events without service loss
	Pressure. ≥50 psi normal / ≥30 psi firefighting
	Fire Flow. Residential 1,000 gallons per minute for 30 minutes
Quality & Compliance	Zero Violations
Performance and Reliability	<10% water loss

Sanitary Sewer	
Category	**Standard**
Capacity	WWTP flows <90% of design
	Zone expansions when flows reach 80% of zone capacity
Quality & Compliance	Permit Compliance. 100% compliance with NPDES permit
Performance and Reliability	Infiltration <1,000 gallons per day per inch-mile
	Preventive Maintenance. Inspect/clean 20% of sewers per year

Stormwater	
Category	**Standard**
Capacity	Conveyance Design. Post-development ≤ pre-development runoff
Quality & Compliance	Regulatory Compliance. 100% permit compliance
Performance and Reliability	Runoff Treatment Volume. Treat 90% of annual runoff volume

Financing Strategy

Medical Lake uses a range of funding tools to support capital investments, including General Fund revenue, enterprise utility fees, real estate excise tax, grants, impact fees, and intergovernmental loans or bonds when warranted. The city's debt-free philosophy promotes careful evaluation of costs, operational impacts, and grant opportunities. The six-year CIP is adopted as part of the annual budget, providing a transparent roadmap for project delivery and financial planning.

Our Path (Goals and Strategies)

Goal A – Maintain and Upgrade Essential Infrastructure

- Use lifecycle costing, regulatory compliance, and proactive asset management to guide long-term investments.

Goal B – Support Growth with Adequate Facilities

- Ensure concurrency with development and coordinate with regional partners, including MLSD, Fire District #3, Spokane County, and WSDOT.

Goal C – Ensure Fiscal Responsibility

- Use transparent prioritization, sustainable financing tools, and multi-year forecasts to maximize public benefit.

Goal D – Enhance Community Quality of Life

- Provide accessible, attractive, and well-maintained parks, public buildings, and transportation facilities.

Goal E – Improve Resilience and Reduce Risk

- Integrate hazard mitigation, redundancy, and climate-adaptive design into capital investments.

Priority Actions

Capital needs evolve with regulatory requirements, system age, community expectations, and growth patterns. For the next two decades, Medical Lake's anticipated needs include:

Utility System Needs

- Upgrade wastewater treatment facilities to maintain compliance and improve energy efficiency.
- Invest in drinking water storage, distribution reliability, and well system modernization.
- Improve stormwater systems to support growth, manage runoff, and align with evolving National Pollutant Discharge Elimination System (NPDES) requirements.

Transportation System Needs

- Continue roadway pavement preservation.
- Incrementally implement sidewalk connectivity, ADA ramp upgrades, and safe crossings.
- Expand trail system to improve multimodal access.
- Implement traffic calming and safety enhancements.

Parks, Facilities, and Public Safety Needs

- Modernize the facility systems (HVAC, roofs) of City Hall, City Hall Annex, and Historic Train Depot
- Improve park facilities as population and recreation needs evolve.
- Replace equipment and fleet replacement based on lifecycle timelines.
- Coordinate with partner agencies on long-term Fire/EMS and law enforcement facility needs.

Chapter 8: Parks

Parks reinforce Medical Lake's commitment to health, recreation, environmental stewardship, and community connection. It provides a framework for maintaining, enhancing, and expanding the City's parks, trails, waterfronts, and recreation facilities while coordinating with land use, mobility, capital facilities, and climate resilience planning. By investing strategically in public spaces and ensuring equitable access, Medical Lake can preserve its small-town character, protect cherished natural resources, and support a high quality of life for residents of all ages and abilities.

Our Story of Parks, Trails, and Community Life

Outdoor spaces have shaped the identity of Medical Lake. The healing qualities of the lake led to early gatherings along the shoreline, which also created social connections. This has continued to be true over generations. Waterfront Park not only serves Medical Lake, but provides the region with a location for gatherings large and small. Over time, the City has expanded on the natural beauty of the lake by creating a 3-mile shared path loop, a boat launch, North End Park, Peper Park, and Coney Island Park. Additional parks have been created throughout the community, including Pioneer Park, Wilcox Park, and Shepard Field. Most recently, the City purchased a historic train depot in hopes of creating another valuable community asset. All of these public spaces have served as anchors for recreation, social connection, and community pride. The City's trail system that started around the lake has expanded into neighborhoods, creating a walkable network that links people to parks, schools, and the downtown core. As a result, lake recreation, youth sports, community celebrations, and year-round trail use have become part of Medical Lake's cultural fabric.

Generations of residents have relied on these natural amenities and public places to strengthen health, foster belonging, and enjoy the healing qualities of the lake and surrounding landscape. This history of stewardship and shared space continues to guide our approach to parks and recreation today.

Where We Are Today

Medical Lake maintains a diverse system of parks, facilities, and trails that support recreation, health, and community activities. The City's park network reflects both its natural setting and its small-town character.

Park System Overview

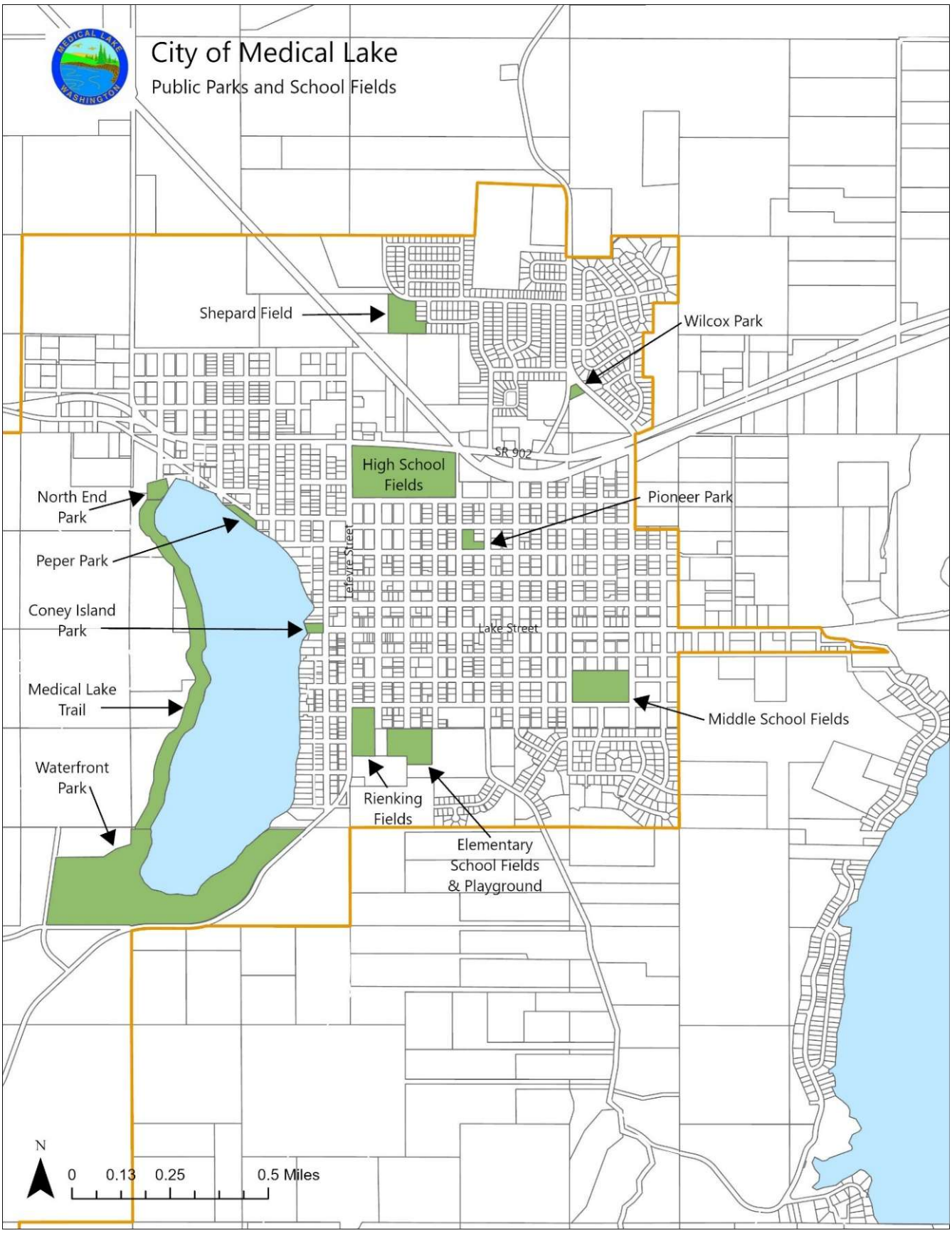
The City provides a mix of waterfront parks, neighborhood green spaces, athletic fields, and natural open spaces. These parks offer playgrounds, picnic shelters, multi-use fields, shoreline access, boat launches, and community gathering areas. The Medical Lake Trail and Fox Hollow Trail form the backbone of a citywide system used for walking, running, cycling, and year-round recreation.

Parks and Public Facilities

Medical Lake's crown jewel is Waterfront Park, a major recreation destination offering shoreline access, picnic shelters, softball fields, a swimming area, a boat launch, and large multi-use spaces. Coney Island Park, a lakeside gathering area near the downtown core, is a remnant of the resorts that thrived a century ago. The city also maintains several neighborhood parks, including Pioneer

Park, Wilcox Park, Shepard Field, Peper Park, and North End Park, which provide a mix of play structures, open lawns, and natural views. The Historic Train Depot and the public library serve as important venues for educational, cultural, and civic activities. Many of these facilities are heavily used but aging, with components such as play equipment, restrooms, shelters, roofs, irrigation systems, and pathways nearing the end of their lifecycle. (See Map 11, Public Parks and School Fields)

Map 11. Public Parks and School Fields



Trails and Connectivity

The 3-mile Medical Lake Trail encircles the lake and connects parks, neighborhoods, downtown, and schools. Sidewalk networks, bicycle lanes, and trail connections extend recreational access throughout the community, though gaps remain in key areas, particularly in growing neighborhoods and corridors. The existing pedestrian and bicycle infrastructure can be found in Map 4, Existing Pedestrian Facilities (page 37) and Map 5, Existing Bicycle Facilities (page 38).

Recreation Programs and Community Use

The City offers seasonal recreation programs, youth sports partnerships, community events, and outdoor activities centered around the lake. Shared-use agreements with the Medical Lake School District support access to fields, gyms, and courts for youth athletics and community programs.

Levels of Service and Access

Parks and trails in Medical Lake are generally accessible; however, population growth and changing recreation preferences have increased demand for updated play structures, improved waterfront amenities, additional seating, shade, restrooms, expanded year-round recreation opportunities, enhanced ADA accessibility, and more continuous trail connections with safe crossings. These evolving needs present opportunities for targeted reinvestment, system modernization, and thoughtful expansion of the parks and trails network to better serve residents of all ages and abilities.

A Vision for an Ideal Future Parks and Recreation System

Medical Lake's parks and recreation system will be a connected, inclusive, and welcoming network of parks, trails, waterfront spaces, and public facilities that enrich daily life and reflect the natural beauty of our lakes and forests.

In this ideal future every resident can walk or wheel to a park or trail from their home. The trail system is expanded, linking neighborhoods, the downtown core, schools, and natural areas. Waterfront spaces are safe, accessible, and environmentally resilient, offering balanced recreation and ecological protection. Parks and facilities are modern, well-maintained, and designed for all ages and abilities. Year-round recreation opportunities are available. Nature is protected and celebrated, with shoreline restoration, tree canopy expansion, and stewardship of wetlands and habitats. Community connection is strengthened, making parks the heart of Medical Lake's identity.

Our Path (Goals and Strategies)

Goal A – Maintain and Modernize Existing Parks and Facilities

- Prioritize safety, ADA accessibility, and lifecycle maintenance.
- Upgrade outdated amenities, restrooms, docks, shelters, and irrigation systems.
- Use durable, sustainable materials and designs.

Goal B – Expand Access to Parks, Open Space, and Trails

- Ensure walkable access to parks in all neighborhoods.
- Expand the trail system and fill sidewalk gaps that connect homes to parks.

- Improve crossings, wayfinding, and multimodal access to parks.

Goal C – Protect and Enhance Natural and Waterfront Areas

- Steward the lake and shoreline through erosion control, native plantings, and water quality improvements.
- Balance recreation with environmental protection.
- Enhance tree canopy and green infrastructure in park areas.

Goal D – Provide Inclusive, High-Quality Recreation Opportunities

- Support youth sports, family recreation, and intergenerational programs.
- Strengthen partnerships with MLSD and community groups.
- Incorporate universal design principles and accessible play areas.

Goal E – Plan for Long-Term Sustainability and Resilience

- Integrate climate resilience into park design and maintenance.
- Plan for lifecycle replacement of docks, shelters, play areas, and trail segments.
- Pursue grants, partnerships, service clubs, and volunteer support to stretch resources.

Priority Actions

Park Modernization

- Replace aging play equipment and improve safety surfaces.
- Upgrade restrooms, lighting, shelters, irrigation, and picnic areas.
- Add benches, shade structures, and ADA-compliant access routes.

Trail and Connectivity Upgrades

- Extend trails to new developments.
- Improve trailheads with signage, crossings, and ADA amenities.
- Create continuous waterfront and neighborhood connections.

Waterfront Enhancement

- Improve docks, swimming access, and shoreline protection.
- Add natural buffers and stormwater improvements near lakefront parks.
- Support water-based recreation with safety and environmental protections.

Expanded Recreation Programs

- Strengthen partnerships with MLSD for youth sports.
- Develop seasonal programs and community events.
- Explore indoor and shoulder-season recreation opportunities.

Maintenance and Asset Management

- Use facility condition reports to prioritize investments.
- Implement proactive maintenance to extend facility life.
- Plan for equipment, vehicle, and small-asset replacement cycles.

Chapter 9: Natural Environment

This chapter affirms Medical Lake's commitment to protecting the natural systems that support public health, environmental quality, and community identity. The City's lakes, wetlands, forests, shorelines, and open spaces are central to its character and quality of life, shaping recreation, neighborhood patterns, and daily experience.

This chapter provides policy guidance for balancing growth with stewardship by protecting environmentally sensitive areas, safeguarding water resources, sustaining wildlife habitat, and integrating natural features into land use and capital planning. In compliance with the Growth Management Act, it establishes a framework for identifying and conserving critical areas while allowing reasonable use of property and supporting long-term community resilience.

Our Natural Setting and History

Medical Lake is shaped by its unique West Plains landscape, defined by glacial lakes, rolling topography, seasonal wetlands, pine forests, and open grasslands. The lake itself, along with adjacent wetlands and shoreline areas, has long been a defining feature of the community, influencing settlement patterns, recreation, and cultural identity.

Historically, residents relied on these natural resources for water, agriculture, timber, and recreation. Over time, urban development brought increased demand for housing, infrastructure, and services, placing pressure on sensitive ecosystems. At the same time, community appreciation for the lake, trails, and surrounding open spaces has steadily grown, reinforcing a shared responsibility to protect natural systems for future generations.

Where We Are Today

Medical Lake's natural environment includes lakes and surface waters, most notably Medical Lake itself, as well as wetlands and riparian areas that support water quality, flood storage, and wildlife habitat. Forested and upland areas provide important habitat, shade, and scenic value, while open space and undeveloped lands contribute to overall ecological function and visual character. Together, these natural systems perform essential functions such as groundwater recharge, stormwater infiltration, habitat connectivity, air and water filtration, and climate moderation.

In accordance with the Growth Management Act, Medical Lake identifies and protects a range of critical areas, including wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas. These areas are regulated through development standards, buffers, and review processes designed to minimize environmental impacts while allowing appropriate and reasonable development to occur.

Natural systems in Medical Lake face increasing pressures from growth, aging infrastructure, invasive species, stormwater runoff, shoreline use, and climate-related stressors. Protection of water quality, shoreline stability, and habitat requires coordinated planning across land use, utilities, transportation, and parks.

A Vision for Medical Lake's Natural Environment

Medical Lake envisions a future where natural systems are protected, restored, and woven into the fabric of daily life. Lakes and wetlands are clean and resilient. Wildlife habitat is preserved and connected. Shorelines balance recreation with ecological protection. Neighborhoods coexist with nature through thoughtful design and stewardship. Environmental protection is not seen as separate from growth, but as essential to sustaining health, safety, and quality of life.

Our Path (Goals and Strategies)

Goal A – Protect and Restore Critical Areas

- Safeguard wetlands, shorelines, aquifer recharge areas, floodplains, and habitat through science-based standards and long-term stewardship.

Goal B – Preserve Water Quality and Natural Hydrology

- Reduce stormwater impacts, protect groundwater resources, and support lake health through integrated planning and infrastructure investment.

Goal C – Integrate Natural Systems Into the Built Environment

- Encourage development that respects natural features, minimizes disturbance, and incorporates green infrastructure.

Goal D – Support Environmental Education and Stewardship

- Foster community awareness, partnerships, and shared responsibility for protecting Medical Lake's natural assets.

Goal E – Coordinate Environmental Protection Across City Planning

- Align natural environment policies with land use, parks, capital facilities, and climate resilience efforts.

Priority Actions

Critical Area Protection

- Maintain and periodically update critical area regulations.
- Require buffers, mitigation, and best management practices where development occurs near sensitive areas.
- Avoid development in high-risk or environmentally constrained locations.

Stormwater and Water Resource Management

- Expand low-impact development and green infrastructure practices.
- Improve stormwater facilities to reduce runoff and pollutant loading.
- Coordinate lake protection efforts with parks and shoreline planning.

Habitat and Open Space Stewardship

- Protect and enhance wildlife habitat within parks, open spaces, and undeveloped areas.
- Use native landscaping and invasive species management.
- Preserve natural corridors that connect habitats across the city.

Shoreline and Lakefront Management

- Balance public access with shoreline protection.
- Stabilize eroding shorelines using natural and bio-engineered techniques.
- Promote responsible recreational use of lakefront areas.

Partnerships and Education

- Coordinate with state agencies, Spokane County, conservation groups, and community organizations.
- Support volunteer stewardship, education programs, and grant-funded restoration projects.

Chapter 10: Climate Resiliency

This Climate Resiliency chapter guides Medical Lake's response to increasing climate-related risks while protecting public health, safety, and community assets. It integrates the City's 2025 FEMA-approved Local Hazard Mitigation Plan with land use, capital facilities, parks, and mobility planning to ensure coordinated, forward-looking decision-making. By planning for wildfire, smoke, drought, severe weather, and flooding, this chapter establishes a practical framework for building resilience into everyday policies, infrastructure investments, and community programs so Medical Lake remains a safe, healthy, and adaptable place to live for generations to come.

Why Climate Resilience Matters in Medical Lake

For generations, life in Medical Lake has been shaped by our semi-arid West Plains landscape, our namesake lakes and wetlands, and the pine forests and grasslands at the city's edge. Those same features that make our community special, such as abundant outdoor access, a walkable small-town core, and proximity to wildlands, also influence how we experience hazards such as wildfire, smoke, drought, severe weather, and localized flooding. Recent events, including the 2023 Gray Road Fire and recurring regional droughts, underscore that these risks are intensifying and that resilience must be part of everyday decision-making.

In 2024, in response to the experience of the Gray Road Fire, the City contracted with a hazard mitigation firm to create a personalized Local Hazard Mitigation Plan (LHMP.) The LHMP provides project lists, maintenance schedules, and grant-ready action worksheets.

Where We Are Today

Medical Lake's primary climate-related hazards are wildfire and smoke, drought, severe weather (wind, snow/ice, extreme heat), and localized flooding. Landslides, earthquakes, and volcanic ashfall are lower-probability but potentially high-impact hazards.

Wildfire & smoke. Hotter, drier summers and frequent winds elevate ignition and spread risk along the wildland-urban interface. Smoke degrades air quality (PM2.5, CO, NOx, VOCs) and poses health risks, even when fires are burning far from the city. The Gray Fire (2023) burned 10,085 acres and destroyed hundreds of structures across the area, a vivid example of changing conditions.

Drought. A recurring pattern (e.g., 2015, 2019, 2021, 2023–2024) stresses groundwater, reduces lake levels, heightens wildfire potential, and affects recreation and local ecosystems.

Severe weather. High winds, snow/ice, and occasional hail cause outages, block roads, and damage trees and power lines; periodic extreme heat challenges residents without cooling.

Flooding. Typically localized during intense rain or rapid snowmelt; post-wildfire landscapes can increase debris-flow and runoff risks.

Emerging Climate Trends

Observed and projected trends for our region include hotter, drier summers; longer wildfire seasons with more smoke days; more intense storms; and greater water-supply stress as snowpack declines

and melt occurs earlier. These trends amplify existing hazards and require that we design infrastructure, landscapes, and neighborhoods with tomorrow's climate in mind.

People, Places, and Systems

People. Seniors, medically fragile residents, low-income households, people with disabilities, residents who rely on power-dependent medical devices, and those without air conditioning are more affected by smoke, heat, and outages.

Places. Areas at the wildland-urban interface are more exposed to wildfire and smoke; low-lying sites and post-fire slopes are more exposed to runoff and debris flows.

Systems & Services. Power distribution lines (wind/ice), stormwater (intense rain), and transportation corridors (SR-902, Lefevre, Brooks, Lake Streets) can be disrupted. Critical facilities, such as Eastern State Hospital, schools, public safety buildings, wells, and the wastewater facility, must remain operational during extreme events.

A Vision for a Climate-Resilient Medical Lake

Medical Lake seeks to be a place where people are safer and healthier during smoke, heat, storms, and floods; where critical services stay online; and where our lakes, wetlands, and forests buffer extremes and remain central to community life. We will grow in ways that reduce exposure to hazards, support vulnerable residents, and keep community members connected and ready. Our investments in streets, parks, utilities, and buildings will be designed for the climate we are entering, not the one we are leaving.

Funding Strategy

The City will pursue FEMA BRIC/HMGP/FMA, NOAA climate resilience opportunities, CDBG, and state programs; and will coordinate closely with SCFD #3, the Medical Lake School District, Fairchild AFB, Avista, Spokane County Emergency Management, and health and social-service partners.

Our Path (Goals and Strategies)

Goal A – Protect People and Neighborhoods

- Reduce risk from wildfire, smoke, drought, storms, heat, and flooding; improve warnings, evacuation routes, and clean-air/cooling options.
- Prioritize support for residents with Access and Functional Needs (AFN).

Goal B – Strengthen Infrastructure and Essential Services

- Harden power, water, wastewater, stormwater, and communications systems; ensure emergency power at critical facilities.
- Use nature-based features (wetlands, buffers) where they add protection and co-benefits.

Goal C – Plan Growth and Land Use for Long-Term Resilience

- Guide development patterns away from high-risk areas.
- Apply Firewise and climate-responsive site and building design.
- Protect aquifer recharge and lake health.

Priority Actions

The City will use these strategies to guide capital projects, grant applications, development review, and partnerships. This chapter sets direction, while detailed project lists and costs remain in the LHMP, TIP, and CIP.

Wildfire and Smoke Resilience

- **Create defensible space & fire-resistant design.** Update development standards for WUI areas (materials, landscaping, setbacks) and expand community Firewise education and vegetation management.
- **Improve evacuation & communications.** Maintain route plans, signage, redundant communications, and neighborhood notification protocols.
- **Provide cleaner indoor air.** Identify and equip public buildings that can serve as clean-air/cooling spaces during smoke/heat events.

Drought and Water Supply Resilience

- **Protect recharge & conserve.** Strengthen aquifer recharge protections; scale water-smart ordinances; promote efficient irrigation and drought-tolerant landscaping.
- **Plan for dry years.** Use demand management and contingency planning to prioritize essential uses and maintain lake health during prolonged drought.

Storm, Flooding, and Erosion Resilience

- **Modernize stormwater.** Upgrade conveyance and treatment to handle intense rainfall; separate or retrofit where it reduces inflow to wastewater and improves water quality.
- **Use natural buffers.** Restore/expand wetlands and riparian vegetation to store stormwater, filter runoff, and serve as strategic firebreaks.

Extreme Heat and Air Quality

- **Cool people and places.** Grow tree canopy on priority streets and near schools/parks; encourage shade structures and high-albedo or shaded sidewalks; support home weatherization and HVAC upgrades for vulnerable households.
- **Targeted outreach.** Proactive communications and check-ins with seniors, medically fragile residents, and those without cooling or transport during heat/smoke events.

Infrastructure and Utilities Resilience

- **Keep the lights on.** Harden or underground lines where feasible; provide backup generation for critical facilities; design redundancy into water and wastewater systems.
- **Design for tomorrow.** Apply climate-informed design standards in City projects; align the Capital Improvement Program (CIP) with hazard maps and LHMP priorities.

Part 3: The Future

Chapter 11: Placemaking

Placemaking in Medical Lake is about strengthening the connection between people, place, and purpose. It reflects the community's identity as a small town rooted in natural beauty, recreation, and a legacy of healing waters. As the City grows and evolves, placemaking will guide how public spaces, streets, parks, downtown, and neighborhoods are designed and experienced, ensuring that development enhances the character of the community rather than diminishing it.

In Medical Lake, placemaking is not a single project or location, it is a communitywide approach to shaping spaces where residents and visitors feel welcome, connected, and engaged. It is expressed through a vibrant and walkable downtown, strong connections to the lake and trail system, high-quality parks and outdoor recreation opportunities, and public spaces that support events, gatherings, and everyday use, all while encouraging development that reflects the scale and charm of a small town. Placemaking supports both quality of life and economic vitality by creating places that people want to live in, visit, and invest in.

Our Identity: A Small Town with Big Outdoor Opportunities

Medical Lake's identity is deeply tied to its natural setting, specifically, three lakes and their associated recreational opportunities. This identity is enhanced by surrounding trails, parks, and open spaces, historically drawing visitors and continuing to serve as a central feature of the community today. The City's small-town character, defined by walkable streets, local businesses, civic pride, and community events, creates a welcoming atmosphere that distinguishes Medical Lake from larger urban areas. Placemaking efforts will reinforce this identity by preserving and enhancing the human-scale design of streets and buildings, supporting locally owned businesses and gathering spaces, promoting visual cohesion through thoughtful signage, landscaping, and design elements, and integrating history and storytelling into public spaces. Together, these elements create an authentic experience that cannot be replicated elsewhere.

Outdoor Recreation as a Foundation for Placemaking

Outdoor recreation is one of Medical Lake's greatest assets and a central component of its future. The City's existing amenities, including Waterfront Park, the 3-mile lake trail, neighborhood parks, and regional connections, already attract residents and visitors alike. Placemaking will build on this strong foundation by strengthening connections between downtown, the lake, and the trail system, enhancing access points, wayfinding, and gathering spaces, supporting year-round recreation opportunities, and integrating recreation with local businesses and community events. By linking recreation spaces with commercial areas and neighborhoods, Medical Lake can create a seamless experience where outdoor activity and daily life intersect.

Tourism and the Local Economy

Tourism in Medical Lake is closely tied to its natural environment, recreation opportunities, and small-town atmosphere, with the community historically drawing visitors to its lake, parks, and events and continuing to benefit from regional visitors participating in sports, festivals, and outdoor activities. Placemaking strengthens tourism by creating distinct destinations such as downtown, the waterfront, and trailheads; encouraging events and programming that attract visitors; supporting businesses that serve both residents and tourists; and enhancing the overall visual quality and

experience of the city. A coordinated approach to placemaking and tourism helps ensure that economic development reinforces community values rather than detracting from them.

Downtown as the Heart of the Community

Downtown Medical Lake is central to placemaking efforts, serving as the primary location where civic life, local businesses, and visitor experiences intersect. Future placemaking in downtown will focus on creating a walkable, pedestrian-friendly environment, enhancing public gathering spaces and streetscapes, encouraging mixed-use development that blends housing and commercial activity, and strengthening connections between downtown and the lakefront and parks. A strong and vibrant downtown will serve as both a community hub and a visitor destination.

A Vision for the Future

Medical Lake envisions a future where placemaking enables the community to thrive while staying true to its roots. In this future, residents can easily walk or bike between neighborhoods, parks, downtown, and the lake, and public spaces are active, welcoming, and well-maintained. Outdoor recreation is integrated into everyday life, while visitors are drawn to the community's natural beauty and authentic character. At the same time, local businesses benefit from increased activity and a strong sense of place. Placemaking will ensure that as Medical Lake grows, it remains a community defined by connection to nature, to each other, and to its history.

Our Path (Goals and Strategies)

Goal A – Strengthen Community Identity and Small-Town Character

- Maintain human-scale development patterns and design standards
- Promote cohesive streetscape and public space design
- Celebrate local history and culture through signage, art, and storytelling

Goal B – Enhance Outdoor Recreation and Connectivity

- Expand and connect trail systems, parks, and open spaces
- Improve access to the lake and waterfront
- Integrate recreation with neighborhoods and commercial areas

Goal C – Support Tourism and Economic Vitality

- Develop destinations that attract visitors year-round
- Encourage events, festivals, and recreational tourism
- Support businesses that serve both residents and visitors

Goal D – Create Vibrant, People-Oriented Public Spaces

- Improve streetscapes, plazas, and gathering areas
- Prioritize pedestrian comfort and accessibility
- Activate public spaces through programming and design

Goal E – Strengthen Downtown as a Destination

- Encourage mixed-use, walkable development

- Improve connections between downtown and the lake
- Invest in streetscape improvements and public amenities

Priority Actions

Placemaking Plan

- Develop a placemaking plan for the Central Business District

Wayfinding and Signage

- Improve wayfinding and signage connecting trails, parks, and downtown

Streetscape

- Invest in streetscape improvements including lighting, landscaping, and seating

Community Events

- Expand and promote community events and festivals

Partnerships

- Strengthen partnerships to support recreation-based tourism

Zoning and Development Standards

- Integrate placemaking principles into zoning and development standards

Chapter 12: Zoning and Development Standards

Zoning is one of the City's primary tools for implementing the vision of the Comprehensive Plan by regulating how land is used, developed, and redeveloped over time. In Medical Lake, zoning is not only a regulatory framework but also a proactive strategy to shape growth in a way that supports the community's values, preserving small-town character, enhancing outdoor recreation, encouraging economic vitality, and maintaining a high quality of life.

Purpose of Zoning

The purpose of zoning in Medical Lake is to translate the vision of the Comprehensive Plan into clear and predictable development standards that:

- Direct growth to appropriate locations within the City and Urban Growth Area
- Encourage a mix of housing types to meet community needs
- Support local businesses and a thriving downtown
- Protect natural features, including the lake, shorelines, and open spaces
- Promote walkable, connected neighborhoods and multimodal access
- Ensure that development is compatible with existing community character

Through these functions, zoning serves as a bridge between long-term planning goals and day-to-day development decisions.

A Context-Sensitive Approach to Growth

Medical Lake recognizes that its development pattern includes both historic neighborhoods and newer areas, each with different characteristics and needs. Zoning must be flexible enough to respect these differences while ensuring consistent progress toward community goals.

Older neighborhoods near the downtown and lake reflect the City's historic, compact form, often with smaller lots, established trees, and limited infrastructure such as sidewalks. In these areas, zoning will support reinvestment and incremental infill while preserving neighborhood character and scale.

Newer and developing areas provide opportunities to implement modern standards, including connected street networks, sidewalks, and a wider range of housing types. Zoning in these areas will encourage thoughtful design, connectivity, and efficient use of land while maintaining compatibility with the broader community.

This context-sensitive approach allows Medical Lake to evolve without losing the qualities that make it unique.

Supporting Housing Choice and Community Needs

Zoning plays a critical role in expanding housing opportunities while maintaining neighborhood stability. Consistent with the Comprehensive Plan and state requirements, Medical Lake will continue to support a variety of housing types, including detached single-family homes, accessory dwelling units, townhouses, cottage housing, plexes, and apartment buildings.

By allowing a broader mix of housing types, zoning can support residents at different income levels and life stages, enable aging in place, and provide opportunities for workforce housing. These efforts align with the community goal of being inclusive, adaptable, and resilient.

Strengthening Downtown and Mixed-Use Areas

Downtown Medical Lake is the heart of the community and a focal point for zoning strategies that support placemaking and economic vitality. Zoning in downtown and mixed-use areas will encourage a mix of residential, commercial, and civic uses, promote pedestrian-oriented design with active ground-floor spaces, support redevelopment and adaptive reuse of existing buildings, and foster a vibrant environment that serves both residents and visitors. By allowing flexibility in how land can be used, zoning will help downtown evolve into a lively destination that reflects the City's small-town charm while supporting local businesses and tourism.

Integrating Recreation and Natural Features

Medical Lake's natural environment, particularly the lake and surrounding parks and trails, is central to its identity and quality of life. Zoning will support this identity by integrating recreation and environmental features into development patterns through the protection of shoreline areas, wetlands, and environmentally sensitive lands, while also encouraging development that connects to parks and trail systems. In addition, zoning will support land uses that enhance recreational access and tourism and promote design that reflects the natural landscape. By reinforcing connections between neighborhoods, recreation areas, and commercial districts, zoning helps create a cohesive and accessible community.

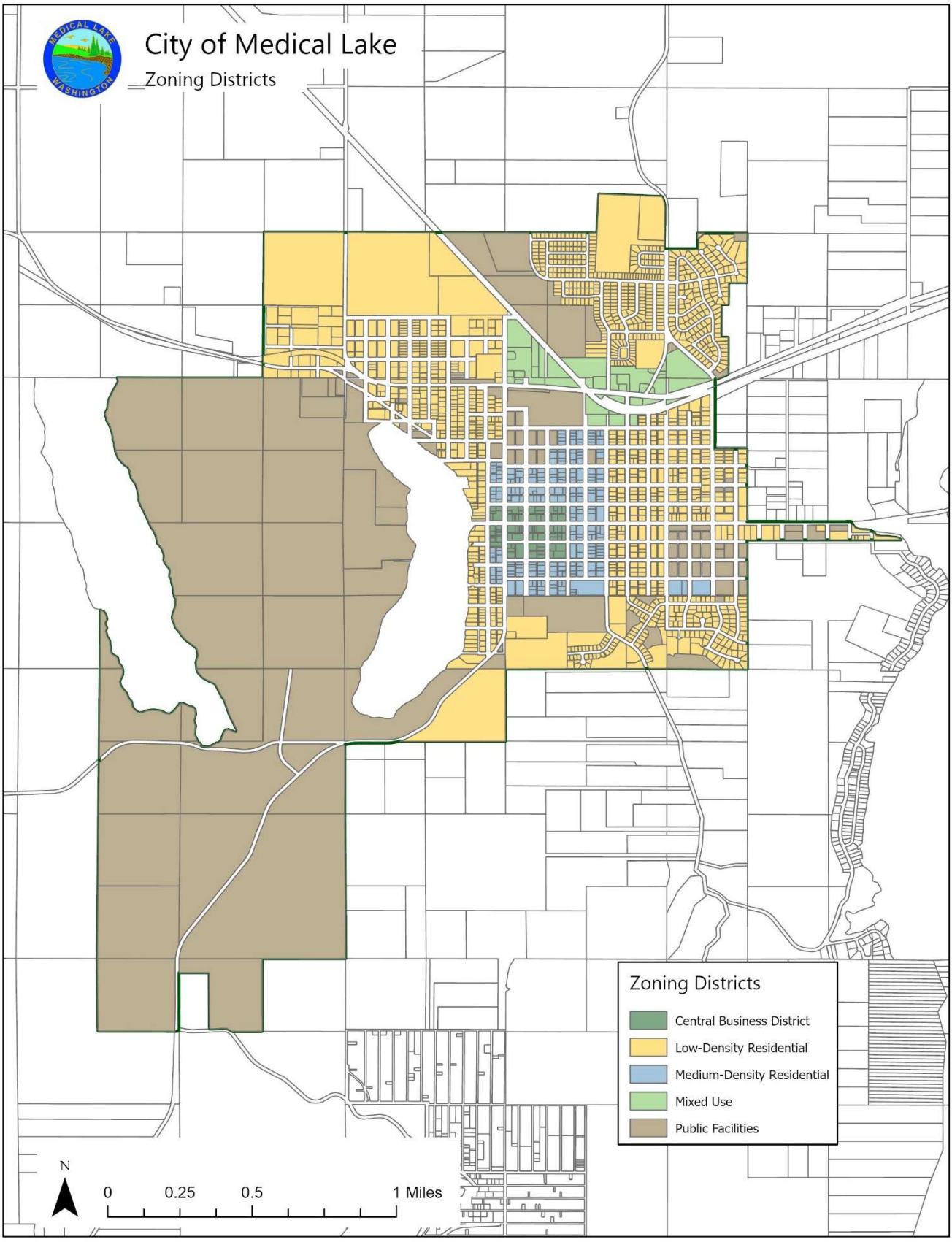
Promoting Walkability and Connectivity

Zoning will play an important role in advancing a more connected and walkable Medical Lake by establishing development standards that encourage pedestrian-friendly site design, strengthen connections between neighborhoods, schools, parks, and downtown, and support multimodal access such as walking and bicycling. These standards also promote street patterns that improve connectivity and reduce barriers, helping to create a more integrated transportation network. Together, these efforts support the broader goal of creating a community where residents can easily move between destinations without relying solely on cars.

A Vision for Zoning in Medical Lake's Future

Medical Lake envisions a zoning framework that is clear, flexible, and responsive to community needs. In this future, zoning supports compact, walkable neighborhoods; a vibrant and active downtown; expanded housing opportunities; and a strong connection to parks, trails, and the lake. Development reflects the scale and character of a small town while accommodating growth in a thoughtful and sustainable way.

Map 11. Zoning Districts



Our Path (Goals and Strategies)

Goal A – Align Zoning with the Comprehensive Plan Vision

- Ensure zoning districts and standards are consistent with the Comprehensive Plan
- Regularly update development regulations to reflect changing needs and state requirements

Goal B – Support Housing Diversity and Affordability

- Allow a mix of housing types across appropriate zones
- Reduce barriers to middle housing and accessory dwelling units
- Encourage efficient land use in areas served by infrastructure

Goal C – Strengthen Downtown and Economic Development Areas

- Maintain and enhance zoning that supports mixed-use development
- Encourage pedestrian-oriented design and active public spaces
- Support adaptive reuse and reinvestment

Goal D – Preserve Community Character and Natural Assets

- Maintain development standards that reflect small-town scale and form
- Protect shoreline areas, open spaces, and critical areas
- Integrate natural features into site design

Goal E – Promote Connectivity and Walkability

- Require development patterns that support pedestrian and bicycle access
- Improve connections between neighborhoods and key destinations
- Coordinate zoning with mobility planning

Priority Actions

Municipal Code

- Update the zoning code to fully align with the Comprehensive Plan and state requirements

Housing

- Refine zoning districts to better support housing diversity and mixed-use development

Design Standards

- Develop design standards that reinforce small-town character and placemaking goals

Connectivity

- Improve standards for connectivity, including sidewalks, trails, and street networks

Capital Facilities

- Coordinate zoning updates with infrastructure planning and capital investments

Chapter 13: Urban Growth Area

The Urban Growth Area (UGA) defines where future growth in Medical Lake is expected to occur and where urban levels of services, infrastructure, and development will be provided. By defining where urban development can occur, rural lands and environmentally sensitive areas are preserved. As a fully-planning city under the Growth Management Act, Medical Lake is required to plan for and accommodate 20 years of growth while ensuring that development occurs in an efficient, coordinated, and sustainable manner. The UGA plays a critical role in shaping the future of the community by directing growth to appropriate locations, supporting infrastructure investment, preserving natural resources, and reinforcing the City's small-town character and connection to its natural environment.

Growth Capacity and Opportunity

Medical Lake's UGA currently contains sufficient land capacity to accommodate projected population and housing needs; however, regional demand for housing across the West Plains presents an opportunity for the City to play a greater role in meeting broader housing needs.

The UGA includes a mix of vacant land, underutilized parcels, and potential redevelopment areas that can support a range of housing types, employment uses, and community services. Growth within the UGA will occur through a combination of infill development in established areas, redevelopment and adaptive reuse opportunities, and new development in designated expansion areas. This balanced approach allows the City to make efficient use of existing infrastructure while accommodating new growth in a thoughtful and coordinated manner.

Preserving Community Character While Growing

A key challenge for the UGA is accommodating growth while preserving the qualities that define Medical Lake, including its small-town feel, natural setting, and strong sense of community. Growth within the UGA will be guided to ensure compatibility with existing neighborhoods and consistency with community values. By continuing the pattern of streets and buildings, integrating development with natural features and creating connections to parks, trails, and recreation areas, the City can grow without losing its character.

Supporting Outdoor Recreation and Natural Assets

The lakes, trails, parks, and open spaces of Medical Lake are central to its identity and appeal. Growth within the UGA must be coordinated with the protection and enhancement of these natural assets. Future development will maintain and improve access to the lake and shoreline areas, expand connections to the citywide trail system, protect environmentally sensitive areas, including wetlands and critical recharge areas, integrate green infrastructure and stormwater management practices. These efforts ensure that growth supports both recreation and environmental stewardship while maintaining the community's high quality of life.

Infrastructure and Service Coordination

The success of the UGA depends on the City's ability to provide adequate public facilities and services concurrent with development. This includes water, wastewater, stormwater, transportation, parks, and public safety services. Medical Lake will align growth within the UGA with Capital Improvement Program investments, utility system capacity and planned upgrades, transportation

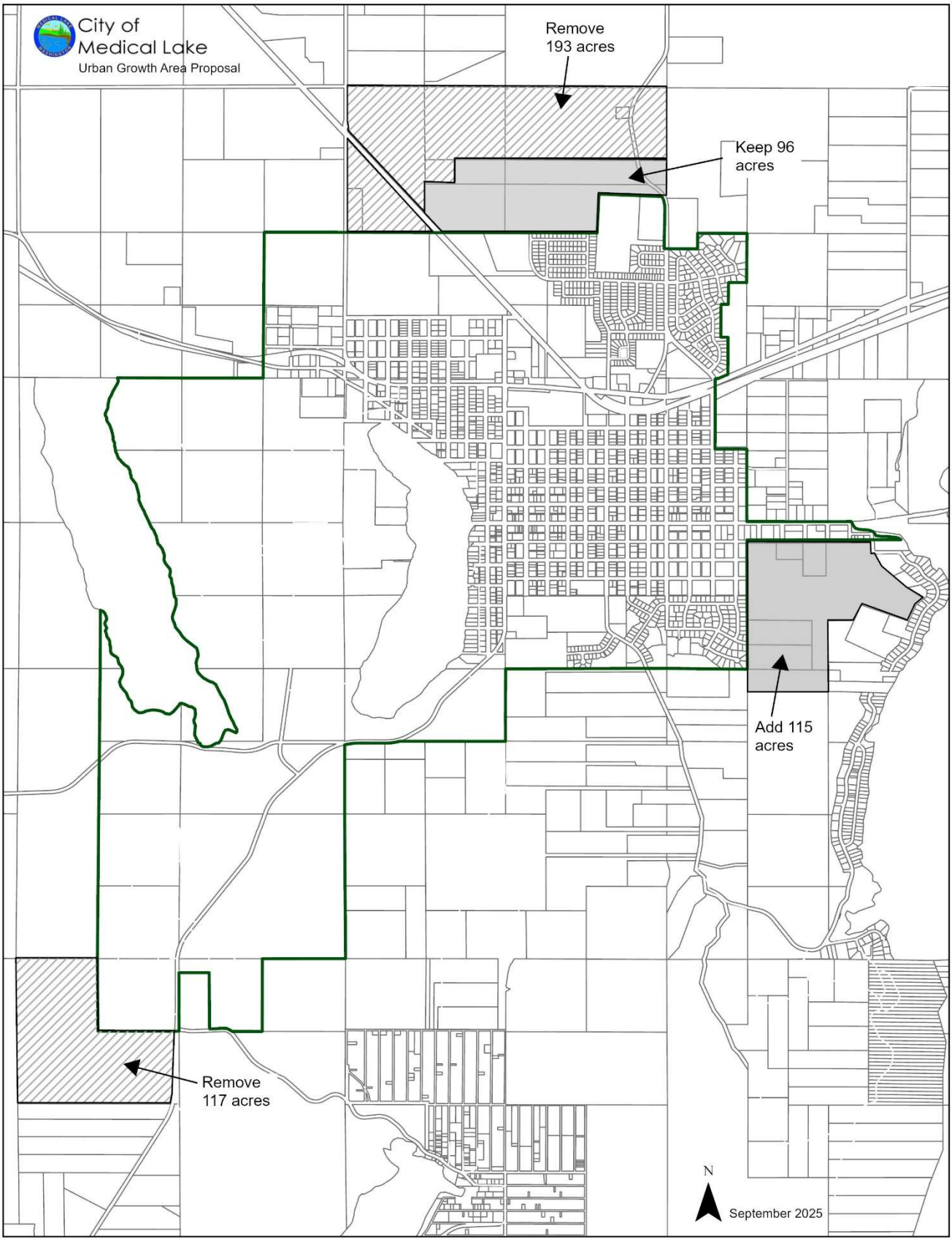
improvements that support safety and connectivity, and park and recreation expansion. By coordinating infrastructure with growth, the City ensures that new development does not outpace the systems that support it.

Regional Coordination and the West Plains

Medical Lake is part of the broader West Plains region, which includes Cheney, Airway Heights, Fairchild Air Force Base, and surrounding unincorporated areas. Growth in the UGA must be considered within this regional context. Coordination will focus on housing supply, transportation connections, economic development, workforce needs, and infrastructure planning. Through collaboration with regional partners, Medical Lake can ensure that its UGA supports both local and regional goals.

Under the Growth Management Act (GMA), Spokane County is responsible for coordinating growth management for all jurisdictions within the county. While the County ultimately determines the boundaries of the Urban Growth Area (UGA), individual cities and towns may request changes. Medical Lake has requested the proposed changes found in Map 12, Proposed Urban Growth Area Revisions.

Map 12. Proposed Urban Growth Area Revisions



A Vision for the Urban Growth Area

Medical Lake envisions a future where the UGA accommodates growth in a way that is intentional, connected, and reflective of community values. In this future, development within the UGA is compact and walkable, neighborhoods are connected to parks and the lake, and new growth enhances the community's identity rather than detracting from it. Infrastructure keeps pace with development, and natural systems are protected and integrated into the built environment. The UGA becomes not just a boundary for growth, but a framework for creating a vibrant, resilient, and sustainable community.

Our Path (Goals and Strategies)

Goal A – Direct Growth to Appropriate Areas

- Focus development within the UGA to support efficient service delivery
- Prioritize infill and redevelopment before expansion

Goal B – Support Housing and Economic Opportunity

- Accommodate a range of housing types and densities
- Provide land for commercial and employment uses
- Align growth with regional housing needs

Goal C – Preserve Community Character and Identity

- Ensure development reflects Medical Lake's small-town scale and design
- Protect natural features and open spaces
- Reinforce connections to the lake and recreation system

Goal D – Coordinate Growth with Infrastructure

- Align development with utility capacity and capital planning
- Ensure concurrency with transportation and public services
- Prioritize efficient and fiscally responsible investments

Goal E – Strengthen Regional Collaboration

- Work with Spokane County and West Plains partners to manage growth
- Coordinate UGA planning, expansions, or adjustments as needed
- Support regional economic and transportation strategies

Priority Actions

UGA Boundaries

- Evaluate UGA boundaries and capacity periodically to ensure compliance with growth projections
- Coordinate with Spokane County to provide for growth in the region

Zoning

- Provide future zoning designations for UGA expansion areas that continue a balance of uses and housing types

Infill and Redevelopment

- Prioritize infill and redevelopment opportunities within existing serviced areas

Infrastructure Investment

- Coordinate UGA planning with infrastructure investment and capital facilities planning

Partnerships

- Strengthen partnerships with Spokane County and West Plains jurisdictions

Conclusion

This Comprehensive Plan reflects Medical Lake's commitment to shaping a future that honors its past while embracing thoughtful, sustainable growth. It is both a vision and a practical guide, grounded in community values, informed by data, and aligned with state and regional requirements. Throughout this document, a consistent theme emerges: growth should strengthen rather than diminish what makes Medical Lake unique. By prioritizing safe and connected neighborhoods, diverse housing opportunities, a vibrant downtown, strong public services, and stewardship of the natural environment, the City positions itself to meet the needs of today while preparing responsibly for tomorrow. This plan recognizes that resilience, especially in the face of recent challenges, is a defining characteristic of the community, and it builds on that strength to create a more adaptable and inclusive future. With clear goals, coordinated strategies, and a commitment to ongoing collaboration, Medical Lake is equipped to guide change in a way that enhances quality of life, supports economic vitality, and preserves the small-town character and sense of belonging that define the community.

City of Medical Lake
124 S. Lefevre St.
P.O. Box 369
Medical Lake, WA 99022-0369

To: Planning Commission

From: Elisa Rodriguez, Senior Planner

TOPIC: Periodic Update: MLMC amendments regarding Impact Fees

Requested Action:
Provide feedback and guidance on potential amendments regarding impact fees to the Medical Lake Municipal Code (MLMC).

Key Points:
Impact fees are regulated in Title 16 – Planning via Chapter 16.05 – Impact Fees, Chapter 16.06 – Fire Protection Impact Mitigation, Chapter 16.07 – Parks, Recreation, and Open Space Mitigation, and Chapter 16.09 – School Impact Mitigation. These chapters were adopted in 1998.

When the fire impact fee was created in 1998, the City of Medical Lake had its own fire department. The fee was determined by analyzing the impact of increased population on facilities, equipment, and staffing costs. Since then, the City Fire Department has been disbanded and the City now contracts with the Spokane County Fire District 3 (SCFD#3) for emergency services. SCFD#3 is aware of the need to update the impact fee, however, because SCFD#3's boundaries do not correspond with the City of Medical Lake's boundaries, creating an impact fee is more complicated. SCFD#3 would like to pursue the option, but will not be able to do the work necessary to update the fee this year. Because the fee was created for the City Fire Department, it is appropriate to discontinue the fee until the necessary analysis can be done.

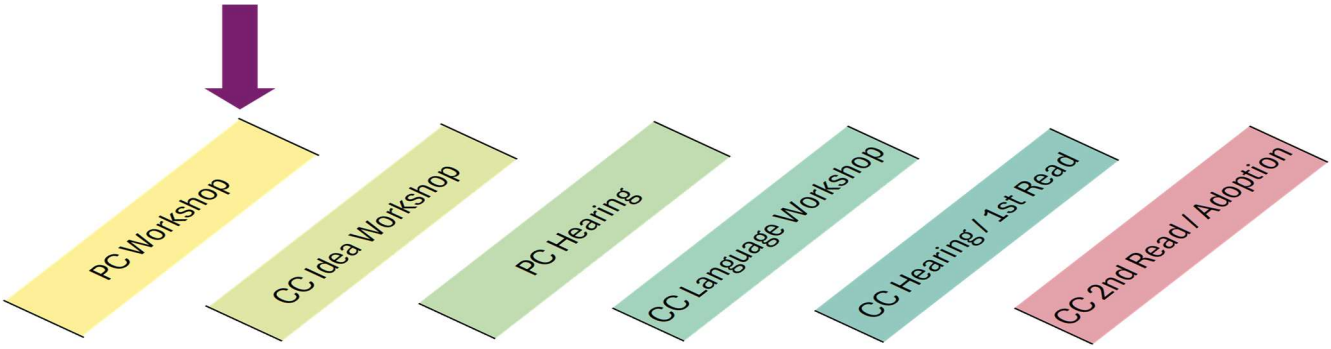
The parks, recreation, and open space impact fee is based on the minimum level of service for parks as called out in the Comprehensive Plan. The current comprehensive plan level of service standards is a certain acreage of parks per 1,000 residents. The methodology uses the cost of creating a park and the average household size. The draft comprehensive plan does not use acreage as the level of service for parks, therefore, the methodology will need to be revised.

The school impact fee is based on the maximum number of children per classroom. The methodology takes into account household size and the likely number of elementary, middle, and high school students that are likely to exist in any neighborhood. This is used in relation to the cost of creating that classroom. The Medical Lake School District (MLSD) is responsible for updating impact fees and the City is responsible for collecting the fees. MLSD is aware of the need to update the fee structure and is in the process of updating its capital facilities plan. However, MLSD does not expect to have this information complete this year. Therefore, it is likely the impact fee will remain the same until impact fees are visited in 2027.

Impact fees should be visited annually to determine if the data used to calculate the fee is still the most current. Medical Lake's fire and school impact fees have never been updated. The parks impact fee was updated once in 2011.

Background Discussion:
The State allows four categories of impact fees to be collected: Parks, Fire Protection, Schools, and Transportation. Impact fees are regulated by RCW 82.02.

This workshop is the first step in a 6-meeting process for adopting amendments to the municipal code.



Public Involvement:
A public hearing will be held with both the Planning Commission and the City Council. In addition, language will be provided on the City website for review and comment by the public.

Next Steps:
After a workshop with the City Council on July 7, 2026, amendment language will be provided to the Planning Commission prior to the public hearing on July 23, 2026. At that meeting, the Planning Commission will be expected to make a recommendation to the City Council.

City of Medical Lake
124 S. Lefevre St.
P.O. Box 369
Medical Lake, WA 99022-0369

To: Planning Commission

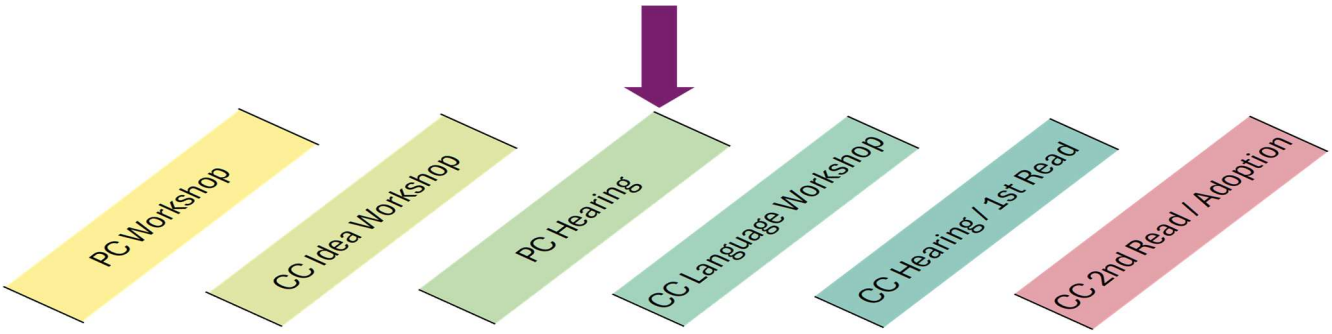
From: Elisa Rodriguez, Senior Planner

TOPIC: Periodic Update: MLMC amendments regarding Subdivisions

Requested Action:
Hold a public hearing and make a recommendation to City Council for proposed amendments regarding subdivisions to the Medical Lake Municipal Code (MLMC).

Key Points:
A staff report is attached with the proposed language and the findings of fact related to the approval criteria. Recommendations of the Planning Commission must be based on the approval criteria specified in the Medical Lake Municipal Code.

Background Discussion:
This public hearing is the third step in a 6-step process for adopting amendments to the municipal code.



Public Involvement:
A public hearing is held with both the Planning Commission and the City Council. In addition, language is provided on the City website for review and comment by the public.

Next Steps:
The Planning Commission Recommendation will be presented to the City Council for the language workshop to be held at the July 7, 2026 meeting.

City of Medical Lake Planning Department
124 S. Lefevre St.
Medical Lake, WA 99022
509-565-5000
www.medical-lake.org

STAFF REPORT TO THE PLANNING COMMISSION

File: Periodic Update: MLMC Subdivisions

Date of Staff Report: June 18, 2026

Date of Hearing: June 25, 2026

Staff Planner: Elisa Rodriguez 509-565-5019 or erodriguez@medical-lake.org

SEPA: Determination of Non-Significance was made on June 3, 2026

Procedure: This request requires a legislative review, therefore, the Planning Commission will hold a public hearing and make a recommendation to the City Council. The City Council will hold a public hearing to consider an ordinance to adopt the amendments to the Medical Lake Municipal Code. The complete process can be found in the Medical Lake Municipal Code (MLMC), Section 19.270.050 – Type IV Reviews.

Proposal: It is proposal to amend the municipal code to:

1. Delete MLMC Chapter 15.04 – General Provisions
2. Replace MLMC Chapter 15.08 – Definitions, with new definitions in Chapter 19.160 – Definitions.
3. Replace MLMC Chapter 15.12 – Preliminary Plat, and Chapter 15.26 – Short Plats, with Chapter 19.350 – Subdivisions.
4. Replace MLMC Chapter 15.16 – Surety Methods, and Chapter 15.18 – Requirements for Improvements, with Chapter 19.380 – Infrastructure Improvements, and Chapter 19.370 – Development Standards.
5. Replace MLMC Chapter 15.22 – Final Plat, with Chapter 19.390 – Final Plats.
6. Replace MLMC Chapter 15.27 – Binding Site Plan, with Chapter 19.360 – Binding Site Plans.
7. Delete MLMC Chapter 15.28 – Subdivision Variance.
8. Delete MLMC Chapter 17.34 – Residence Division.
9. Add Chapter 19.330 – Lot Line Adjustments.

Summary: The proposed draft amendments establish a comprehensive and structured framework for regulating land divisions, including lot line adjustments, subdivisions, short subdivisions, and binding site plans. The code outlines purposes, applicability, application submittal requirements, and review processes for each type of land division. It sets approval criteria and standards requiring compliance with zoning, density, and development regulations, as well as alignment with the Comprehensive Plan and

State law. The amendments also establish development standards governing block layout, street design and connectivity, pedestrian and bicycle access, utilities, easements, tracts, and phasing. Additionally, the code requires that necessary infrastructure be constructed or financially guaranteed to ensure quality and completion. Environmental protections are incorporated through critical areas regulations and stormwater management standards. Lastly, the language includes final plat approval and recording requirements.

PROCEDURAL HISTORY

SEPA DNS Issued – June 3, 2026

Notice of a Public Hearing Published in Cheney Free Press – May 28, 2026

Public Comment Period Closed – June 18, 2026

PROPOSED LANGUAGE

19.300s – Land Divisions

19.330 – Lot Line Adjustments

19.330.010 Purpose. The purpose of this chapter is to provide rules and criteria for approval of lot line adjustments between two or more legal lots to ensure that the reconfigured lots meet applicable dimensional standards.

19.330.020 Applicability. A Lot Line Adjustment is required to relocate a common property line between two or more properties.

19.330.030 Application. The following must be submitted to the City for an application to be deemed complete:

A. An appropriate City application form;
B. A survey prepared by a surveyor in accordance with the provisions of the Survey Recording Act (Chapter 58.09 RCW), clearly showing the dimensions of the existing properties, location of any improvements (structures, septic system, etc.), location of any easements, and the dimensions of the proposed lot line(s);
C. Legal descriptions of before and after the lot line adjustment;
D. Copy of all property owners' deeds, verifying current ownership; and
E. The application fee.

19.330.040 Process. Lot Line Adjustments are processed through a Type I Review. The Type I Review process is found in MLMC Section 19.270.020, Type I Reviews.

19.330.050 Approval Standards. A lot line may be adjusted if no new lot is being created and all standards of MLMC Title 19 – Land Use and Development, are being met. This includes, but is not limited to MLMC Chapter 19.540 – Density and Lot Sizes, and MLMC Chapter 19.550 – Development Standards.

19.350 – Subdivisions

19.350.010 Purpose. The purpose of this chapter is to implement the Medical Lake Comprehensive Plan, ensure orderly land division and development, protect public health, safety, and welfare, ensure adequate public facilities are concurrent with development, stipulate standards, and provide a clear and efficient process.

19.350.020 Applicability. All divisions of land shall be subject to the requirements of this Chapter, except for land divided by an approved Binding Site Plan and other inapplicable situations pursuant to RCW 58.17.040. Lot Segregations, Lot Merges, and Lot Line Adjustments are not considered land divisions.

19.350.030 Overview. The land division process requires the following:

A. Preliminary Plat Approval per MLMC Chapter 19.350 – Subdivisions.
B. Construction of or financial security guaranteeing infrastructure improvements per MLMC Chapter 19.380 – Infrastructure Improvements.
C. Final Plat Approval per MLMC Chapter 19.390 – Final Plats.
D. Recording of the Final Plat.

19.350.040 Preliminary Plat Review Applications. The following must be submitted to the City for an application to be deemed complete:

A. An appropriate City application form;
B. A written description of the proposal;
C. A preliminary plat prepared by a surveyor in accordance with the provisions of the Survey Recording Act (RCW 58.09) depicting, at a minimum, lot lines, easements, rights-of-way, and topographic features;
D. A traffic generation letter (for 5 or more lots);
E. Any studies, reports, or documentation to support the request;
F. A written response to the approval criteria of MLMC Section 19.350.060 Preliminary Plat Review Approval Criteria.
G. A SEPA checklist unless the proposal is exempt from SEPA;
H. Copy of all property owners' deeds, verifying current ownership; and
I. The application fee.

19.350.050 Preliminary Plat Review Process. The type of review process is dependent on the number of lots being proposed.

A. Short Subdivisions (4 lots or less) are processed through a Type II Review. The Type II Review process is found in MLMC Section 19.270.030, Type II Reviews.
B. Subdivisions (5 or more lots) are processed through a Type III Review. The Type III Review process is found in MLMC Section 19.270.040, Type III Reviews.

19.350.060 Preliminary Plat Review Approval Criteria. To grant approval of a preliminary short subdivision or subdivision, the applicant must demonstrate compliance with all of the following criteria:

A. *Public facilities provision*. Appropriate provisions have been made for transportation, water, storm drainage, erosion control and sanitary sewage disposal methods that are consistent with the City's current ordinances, standards and plans;
B. *Proposed improvements*. Appropriate provisions have been made for proposed streets, alleys, paths, utilities and other improvements that are consistent with the City's current ordinances, standards and plans, including the Medical Lake Comprehensive Plan, and Washington State Department of Transportation standards and plans, where applicable;
C. *Open space and dedications*. Appropriate provisions have been made for open space, parks, schools, dedications, easements and reservations in conformance with the Comprehensive Plan;
D. *Physical characteristics*. The design of the proposed short subdivision or subdivision site has taken into consideration the physical features of the site, including but not limited to: topography, soil conditions, susceptibility to flooding, inundation or swamp conditions, steep slopes or unique natural features such as wildlife habitat or wetlands;
E. *Compliance with all requirements of this title*. The proposed short subdivision or subdivision complies with all applicable requirements of this title unless modified through the approval; and
F. *Compliance with State requirements*. That the proposed short subdivision or subdivision complies with the requirements of RCW 58.17.110.

19.350.070 Preliminary Plan Review Approval Standards. To grant approval of a preliminary short subdivision or subdivision, the applicant must demonstrate compliance with all of the following standards:

A. Lots. The regulations of MLMC Chapter 19.540 – Density and Lot Sizes must be met;
B. Blocks. The regulations of MLMC Section 19.370.020, Block Layout, must be met;
C. Streets. The regulations of MLMC Section 19.370.030, Streets, must be met;
D. Street Layouts. The regulations of MLMC Section 19.370.040, Street Layouts, must be met;
E. Easements. The regulations of MLMC Section 19.370.050, Easements, must be met;
F. Tracts. The regulations of MLMC Section 19.370.060, Tracts, must be met;
G. Phasing. The regulations of MLMC Section 19.370.070, Phasing, must be met;
H. Water. The regulations of MLMC Section 19.370.080, Water Service, must be met;
I. Stormwater. The regulations of MLMC Section 19.370.090, Stormwater Standards, must be met;
J. Sewer. The regulations of MLMC Section 19.370.100, Sanitary Sewer, must be met;
K. Critical Areas. The regulations of MLMC Chapter 17.10 – Critical Areas, must be met;
L. Concurrency. The regulations of MLMC Chapter 19.180 – Concurrency Review, must be met; and
M. Parks and Playgrounds. Based on the Comprehensive Plan and the Parks and Recreation Master Plan, the Planning Official shall see that appropriate provision is made for parks and playgrounds to serve the proposed subdivision.

19.360 – Binding Site Plans

19.360.010 Purpose. The purpose of this chapter is to implement the Medical Lake Comprehensive Plan, ensure orderly land division and development, protect public health, safety, and welfare, ensure

adequate public facilities are concurrent with development, stipulate standards, and provide a clear, simple, and efficient alternative process for certain types of development.

19.360.020 Applicability. The binding site plan shall only be applied for the purpose of dividing land for:

A. Sale or for lease of commercial property as provided in RCW 58.17.040(4);
B. A division for the purpose of lease as provided in applicable RCW sections when no other structure other than manufactured homes or travel trailers are permitted to be placed upon the land; provided, that the land use is in accordance with the requirements of this title; and
C. Condominiums as provided in applicable RCW sections consistent with RCW 58.17.040(7).

19.360.030 Applications. The following must be submitted to the City for an application to be deemed complete:

A. An appropriate City application form;
B. A written description of the proposal;
C. A preliminary binding site plan prepared by a surveyor in accordance with the provisions of the Survey Recording Act (RCW 58.09) depicting, at a minimum, lot lines, easements, rights-of-way, and topographic features;
D. A traffic generation letter;
E. Any studies, reports, or documentation to support the request;
F. A written response to the approval standards of MLMC Section 19.360.050, Binding Site Plan Approval Standards;
G. A SEPA checklist unless the proposal is exempt from SEPA;
H. Copy of all property owners' deeds, verifying current ownership; and
I. The application fee.

19.360.040 Process. Binding Site Plans are processed through a Type II Review. The Type II Review process is found in MLMC Section 19.270.030, Type II Reviews.

19.360.050 Binding Site Plan Approval Standards. To grant approval of a binding site plan, the applicant must demonstrate compliance with all of the following standards:

A. Blocks. The regulations of MLMC Section 19.370.020, Block Layout, must be met;
B. Streets. The regulations of MLMC Section 19.370.030, Streets, must be met;
C. Street Layouts. The regulations of MLMC Section 19.370.040, Street Layouts, must be met;
D. Easements. The regulations of MLMC Section 19.370.050, Easements, must be met;
E. Tracts. The regulations of MLMC Section 19.370.060, Tracts, must be met;
F. Phasing. The regulations of MLMC Section 19.370.070, Phasing, must be met;
G. Water. The regulations of MLMC Section 19.370.080, Water Service, must be met;
H. Stormwater. The regulations of MLMC Section 19.370.090, Stormwater Standards, must be met;
I. Sewer. The regulations of MLMC Section 19.370.100, Sanitary Sewer, must be met;
J. Critical Areas. The regulations of MLMC Chapter 17.10 – Critical Areas, must be met; and
K. Concurrency. The regulations of MLMC Chapter 19.180 – Concurrency Review, must be met;

19.370 – Development Standards

19.370.010 Purpose. The purpose of this chapter is to establish clear and consistent development standards for land divisions.

19.370.020 Block Layout. The length, width and shape of blocks shall be designed with due regard to providing adequate building sites for the use contemplated; consideration of the needs for convenient access, circulation, control, safety of motor vehicular, bicycle and pedestrian traffic and recognition of limitations and opportunities of topography. The block pattern shall provide the following:

A. Blocks shall have sufficient width to provide two tiers of lots.
B. Blocks shall not exceed 1,300 feet in length between street lines, except blocks adjacent to arterial streets or unless a previous adjacent layout or topographical conditions justify variation.
C. In blocks over 600 feet in length, a pedestrian/bicycle path is required to bisect the block.
D. A pedestrian/bicycle path may be required to connect a dead-end street with an adjacent street.
E. A pedestrian/bicycle path shall have a minimum width of 10 feet and be paved in a durable material.

19.370.030 Streets. Rights-of-way widths and required improvements are determined by the functional classification of the street and shall be installed according to specifications of the City, pursuant to MLMC Title 11 – Streets and Sidewalks, as administered by the Public Works Director. The functional classification of streets are specified in the Medical Lake Transportation Master Plan.

A. Arterial streets shall have 70-foot rights-of-way with accommodation for separated bicycle and pedestrian travel.
B. Collector streets shall have 60-foot rights-of-way with accommodation for separated bicycle and pedestrian travel.
C. Local streets shall have 50-foot rights-of-way with accommodations for separated pedestrian travel.
D. Alleys shall have 16-foot rights-of-way.

19.370.040 Street layouts. Street layouts shall be designed to efficiently integrate into the existing street system and shall provide for the following:

A. Streets shall continue the established grid system.
B. Streets shall continue to the edge of development where appropriate.
C. Streets shall intersect at right angles where possible.
D. Street intersections shall not be offset more than twenty-five (25) feet.
E. Dead-end streets are not permitted unless deemed necessary by the Public Works Director.
F. Streets shall be full-width unless a partial-width street is being proposed on the periphery of the proposed development or to accommodate a natural feature such as a wetland. Any proposed partial-width streets must be approved by the Public Works Director.
G. When required, elevation benchmarks shall be established within the land division with elevations to U.S. Geological Survey datum.

19.370.050 Easements. Easements for sewers, drainage, water lines, electric lines or other public use utilities shall be provided. The size and location of the easement shall be reviewed and approved by the appropriate utility provider.

19.370.060 Tracts. Parcels reserved for special purposes such as open space, stormwater facilities, wetland preservation, landscaping, and recreation, shall be designated as a tract. Tracts shall carry the stipulation that they cannot be further divided.

19.370.070 Phasing. A land division may be developed in phases. Any phasing proposal shall be submitted with application materials for the preliminary plat and be approved as part of the preliminary plat review. Each phase shall constitute an independent project meeting all of the requirements for density, open space, public and private infrastructure, landscaping, pedestrian and vehicle circulation, etc. The sequence of phased development shall be identified by map and narrative.

19.370.080 Water Service. Water service shall be constructed and stubbed at the property line of all buildable lots.

Water lines with valves and fire hydrants serving the development and connecting the development to the City mains shall be installed according to specifications of the City, pursuant to MLMC Title 12 - Water and Sewers, as administered by the Public Works Director.

19.370.090 Stormwater. Surface drainage systems shall be provided within the development. The design of the drainage system within the development shall be in accordance with City standards as administered by the Public Works Director. Areas that experience high water table levels may have additional requirements.

19.370.100 Sanitary Sewer. Sanitary sewer service shall be constructed and stubbed at the property line of all buildable lots.

Sanitary sewers shall be installed to serve the development and to connect the development to City mains according to specifications of the City, pursuant to MLMC Title 12 – Water and Sewers, as administered by the Public Works Director.

19.380 – Infrastructure Improvements

19.380.030 Review. Improvements shall not commence until civil engineering plans, prepared in accordance with the requirements of the City, have been approved by the City, all required permits have been obtained, a preconstruction meeting has been conducted, and the City has been notified of intention to commence.

All improvements to be dedicated to the City shall be designed by or under the supervision of a licensed civil engineer. All plans, prior to the city's acceptance of any improvements, shall be stamped and signed by a licensed civil engineer.

19.380.040 Security In Lieu of Construction. In lieu of the completion and acceptance of any required public or private improvements prior to approval of a final plat, the Public Works Director may accept an escrow or other form of security acceptable to the City, in an amount and with conditions satisfactory to him. The security to the City shall be sufficient to ensure that the actual construction and installation of

such improvements occur within a period specified in the agreement by the Public Works Director and completion of the improvements in accordance with the agreement shall be enforced by the Public Works Director by appropriate legal and equitable remedies.

Upon completion of required improvements, the applicant shall request in writing that the Public Works Director release all or a portion of the funds held in escrow. Such improvements shall be inspected and accepted as complete by the city prior to the release of any such escrow funds, or portion thereof.

In the event the developer of the land division fails to carry out provisions of the agreement and the City has unreimbursed costs or expenses resulting from such failure, the escrow or other form of security acceptable to the city shall be forfeited and the money shall be paid to the City to defray its costs. If the amount of the escrow or other form of security acceptable to the City exceeds the cost and expense incurred by the City, the City shall release the remainder. If the amount of the escrow or other form of security acceptable to the City is less than the cost and expense incurred by the City, the shall be liable to the City for the difference.

19.380.030 Construction. Improvements installed by the developer, either as a requirement of this Chapter or at their own option, shall conform to the requirements of this Chapter.

Public improvements to be constructed at the expense of the owner of the short subdivision or subdivision.

Improvements shall be constructed under the inspection and to the satisfaction of the Public Works Director or designee. The City may require changes in typical sections and details in the public interest if unusual conditions arise during construction to warrant the change.

All underground utilities, sanitary sewers and storm drains installed in the streets by the developer of the land division shall be constructed prior to the surfacing of streets. Stubs for service connections and underground utilities and sanitary sewers shall be placed to a length precluding the necessity for disturbing the street improvements when surface connections are made.

All monuments set in subdivisions shall be in conformance with City standards, as administered by the Public Works Director.

19.380.050 Inspection. After completing all improvements, the subdivider shall make written request for final inspection by the Public Works Director. After finding that all improvements have been completed in accordance with the installation standards and a guarantee has been posted, the Public Works Director shall certify this in writing.

A plan showing all improvements “as built” shall be filed with the Public Works Department.

19.380.070 Guarantee. It shall be required that a 110 percent maintenance bond or bonds be posted to guarantee all workmanship and material for a period of one year from the date of the acceptance of the improvements by the City. This is provided that in the judgment of the Public Works Director any defects are not the result of public abuse, misuse or acts of God. City inspection does not give relief from the one-year guarantee on workmanship.

19.390 – Final Plats

19.390.010 Purpose. The purpose of this Chapter is to provide process for obtaining an accurate and legally operative plat of a land division that is in substantial conformance with an approved preliminary plat, and that is suitable for recording.

19.390.020 Applicability. All land divisions must obtain final plat approval before a plat can be recorded with Spokane County.

19.390.030 Application. The following must be submitted to the City for an application to be deemed complete:

A. An appropriate City application form;
B. A written description explaining conformance with any conditions of approval set by the preliminary plat approval;
C. A final plat prepared by a surveyor in accordance with the provisions of the Survey Recording Act (Chapter 58.09 RCW);
D. A certification of completed improvements or a performance bond;
E. A certification of platting from a title company;
F. The application fee.

19.390.040 Process. Final Plats are reviewed according to the Final Plat Review process found in MLMC Section 19.270.060, Final Plat Reviews.

19.390.050 Approval Standards. Final Plats will be forwarded for signature when compliance with the following standards are demonstrated:

A. The plat is in proper form for recording as established by the submittal requirements;
B. The final plat map and mathematical closures are in compliance with the survey standards set forth in RCW 58.17;
C. All required improvements have been completed or security acceptable to the city in lieu of completion guaranteeing that all required improvements will be completed;
D. The final plat is in conformance with conditions of preliminary plat approval;
E. The final plat complies with the requirements of this chapter and all applicable adopted states and local ordinances.

19.390.060 Recording. The final plat shall be recorded with the Spokane County auditor. It shall be the responsibility of the applicant to record the plat with the county auditor. Upon recording of the final plat, the applicant shall submit two full-size copies of the actual recorded mylar to the Planning Official.

PUBLIC COMMENT

No comments were received from agencies or the public.

ZONING CODE APPROVAL CRITERIA

Amendments to development regulations are subject to MLMC Section 19.143.050 – Approval Criteria.

A. The proposed amendment(s) implements the goals, policies, and objectives of the Medical Lake Comprehensive Plan.

Findings: The proposed amendments implement the goals, policies, and objectives of the Medical Lake Comprehensive Plan by translating the Plan's vision and policy framework into clear, enforceable development regulations that guide land division and infrastructure provision. The Comprehensive Plan establishes that it is a primary decision-making tool intended to guide growth, land use, public facilities, and environmental protection through coordinated regulations and implementation measures. The amendments directly support this framework by requiring consistency with the Comprehensive Plan, ensuring that land divisions provide adequate public facilities concurrent with development, and incorporating standards for transportation connectivity, utilities, parks, and environmental protection. These provisions advance key Plan goals, including maintaining an adequate supply of buildable land, ensuring public facilities are available at the time of development, promoting walkability and connectivity, protecting critical areas, and accommodating projected population growth within designated urban areas. Furthermore, the amendments reflect the Plan's emphasis on orderly, coordinated growth, fiscal sustainability, and protection of community character by establishing clear procedures, requiring compliance with adopted level-of-service standards, and implementing development standards that reinforce the Plan's land use, transportation, public facilities, housing, and natural environment policies. Accordingly, the proposed amendments are consistent with and effectively implement the adopted Comprehensive Plan. **For these reasons, the criterion is met.**

B. The proposed amendment(s) complies with all requirements of the state's Growth Management Act (GMA, including growth boundaries, critical areas, and future housing needs.)

Findings: The proposed amendments comply with the requirements of the Washington State Growth Management Act (GMA) by ensuring that land division and development occur in a manner consistent with adopted growth management policies, including the provision of adequate public facilities, protection of critical areas, and accommodation of future housing needs. The amendments require consistency with the Medical Lake Comprehensive Plan, which is adopted under the GMA and establishes designated growth areas and population targets. Through concurrency requirements and infrastructure standards, the regulations ensure that public facilities and services are available to support development at the time of occupancy, consistent with GMA mandates. The inclusion of critical areas regulations and site design requirements ensures the protection of environmentally sensitive lands, such as wetlands, flood-prone areas, and wildlife habitat, in accordance with GMA requirements for natural resource preservation. Additionally, the land division processes, including provisions for subdivisions, short plats, and binding site plans, facilitate a range of housing opportunities by allowing efficient and orderly creation of buildable lots that meet density and development standards identified in the Comprehensive Plan. Overall, the amendments implement and reinforce GMA goals by promoting coordinated growth within designated areas, protecting

environmental resources, and supporting the City's capacity to meet current and future housing demand. **For these reasons, the criterion is met.**

C. The proposed amendment(s) does not conflict with the Shoreline Master Program.

Findings: Any development must conform with the Shoreline Master Program. The proposed amendments do not modify shoreline jurisdiction, allowable uses, or development standards within shoreline areas. All applicable shoreline and critical area regulations remain in effect and will govern siting and development. Therefore, these uses will not cause an inherent conflict. **For these reasons, the criterion is met.**

D. The proposed amendment(s) is consistent with other adopted City plans, including, but not limited to, the Strategic Plan, Capital Facilities Plan, Parks Master Plan, Water Plan, Sewer Plan, Stormwater Plan, and Transportation Plan.

Findings: The proposed amendments are consistent with the City's adopted plans as they implement policies that promote coordinated, efficient, and sustainable growth. The amendments require that land divisions provide adequate infrastructure, including transportation networks, water, sewer, and stormwater systems, in accordance with adopted City standards and concurrency requirements, thereby directly supporting the planning and funding framework established in the Capital Improvement Plan and utility plans. The inclusion of street classification standards, connectivity requirements, and pedestrian and bicycle infrastructure aligns with the Transportation Plan by promoting safe, efficient, and multimodal circulation. Provisions for park and open space dedication are consistent with the Parks and Recreation Master Plan's goals for accessible recreational opportunities. Additionally, requirements related to phasing, infrastructure construction, and financial guarantees ensure that development occurs in a manner that is coordinated with the City's long-term service and capital improvement strategies. Overall, the amendments implement and reinforce the goals and policies of the City's adopted plans by ensuring that development is orderly, adequately served by public facilities, and supportive of the City's vision for managed growth and community well-being. **For these reasons, the criterion is met.**

E. The proposed amendment(s) will not adversely affect the ability to provide City services in a cost-effective manner.

Findings: The proposed amendments will not adversely affect the City's ability to provide services in a cost-effective manner because they require that all new land divisions demonstrate adequate provision of infrastructure and public services concurrent with development. Through requirements for preliminary plat approval, concurrency review, and compliance with adopted standards for transportation, water, sewer, and stormwater systems, the code ensures that necessary facilities are either constructed by the developer or financially guaranteed prior to final plat approval. The inclusion of engineering plan review, inspection requirements, and bonding provisions further ensures that infrastructure is built to City standards and will not create future maintenance or replacement burdens for the City. Additionally, orderly development patterns, including coordinated street layouts, phased development requirements, and adherence to the Comprehensive Plan, promote efficient service delivery and avoid fragmented or inefficient extensions of utilities and roadways. By placing the responsibility for infrastructure improvements and associated costs on the developer and requiring that each phase of development independently meets service standards, the

amendments protect existing City resources, prevent unfunded liabilities, and support the long-term fiscal sustainability of municipal services. **For these reasons, the criterion is met.**

F. The proposed amendment(s) will not be detrimental to and will result in long-term benefits to the community as a whole and is in the public interest.

Findings: The proposed amendments to the Medical Lake Municipal Code governing land divisions, lot line adjustments, subdivisions, binding site plans, and associated development standards are not detrimental to the community and instead provide substantial long-term public benefit. The amendments establish clear, consistent, and predictable procedures and criteria, improving administrative efficiency and ensuring equitable application of regulations. They align with applicable Washington State laws and planning best practices, thereby reducing legal risk and supporting defensible decision-making. The provisions require adequate infrastructure, including transportation, water, sewer, and stormwater systems, to be constructed or financially guaranteed, which protects public health, safety, and welfare and prevents undue financial burdens on the City and its residents. The regulations promote orderly and coordinated growth consistent with the Comprehensive Plan by requiring concurrency of public facilities, cohesive street layouts, and phased development. Additionally, the amendments incorporate environmental protections, including critical areas review and stormwater management, to safeguard natural resources and minimize hazards such as flooding. Requirements for connectivity, pedestrian and bicycle facilities, and open space further enhance community livability and mobility. Overall, the amendments balance development flexibility with appropriate safeguards, ensuring that growth is well-planned, fiscally responsible, and beneficial to both current and future residents, thereby serving the public interest. **For these reasons, the criterion is met.**

G. The proposed amendment(s) will not result in adverse impacts to public infrastructure, wetlands, lakes, businesses, or residents.

Findings: The proposed amendments will not result in adverse impacts to public infrastructure, wetlands, lakes, businesses, or residents because they establish comprehensive standards and review processes that require all land divisions to address infrastructure capacity, environmental constraints, and compatibility with surrounding uses prior to approval. The amendments mandate compliance with adopted development standards for transportation, water, sewer, and stormwater systems, as well as concurrency requirements, ensuring that public infrastructure is adequate and not overburdened by new development. In addition, the provisions require consideration of site-specific physical characteristics and compliance with critical areas regulations, including protections for wetlands, flood-prone areas, and environmentally sensitive lands, thereby minimizing potential impacts to natural resources such as lakes and habitat areas. Requirements for stormwater management, erosion control, and preservation tracts further mitigate environmental impacts and protect water quality. The code also ensures that development is designed to be compatible with surrounding properties through adherence to zoning, density, and development standards, thereby protecting existing businesses and residential neighborhoods from adverse effects. By requiring professional engineering review, inspection, and bonding of infrastructure improvements, the amendments ensure that development is properly constructed and maintained, preventing future deficiencies or burdens on the community. Overall, the amendments provide a structured and enforceable framework that avoids negative impacts and instead promotes safe, environmentally responsible, and compatible development. **For these reasons, the criterion is met.**

CONCLUSION

Based on the findings, the proposed amendments to the Medical Lake Municipal Code are consistent with the Comprehensive Plan, comply with the requirements of the Growth Management Act, and align with other adopted City plans. The amendments provide clear and effective standards that support orderly growth, protect public health, safety, and environmental resources, and ensure that infrastructure and public services are provided in a fiscally responsible and coordinated manner. Furthermore, the amendments will not create adverse impacts to public facilities, natural resources, businesses, or residents, and instead promote long-term community stability, livability, and sustainability. Accordingly, the proposed amendments are in the public interest and support the City's vision for managed growth and continued community well-being. All of the applicable approval criteria have been met, therefore, the proposal should be approved.

POSSIBLE ACTIONS BY THE PLANNING COMMISSION

1. Recommend approval of the proposed amendments to the City Council.
2. Recommend approval of modified amendments to the City Council.
3. Request City Staff to address concerns and return with modified language.

City of Medical Lake
124 S. Lefevre St.
P.O. Box 369
Medical Lake, WA 99022-0369

To: Planning Commission

From: Elisa Rodriguez, Senior Planner

TOPIC: Periodic Update: Transportation Master Plan

Requested Action:
Hold a public hearing and make a recommendation to the City Council regarding the Transportation Master Plan

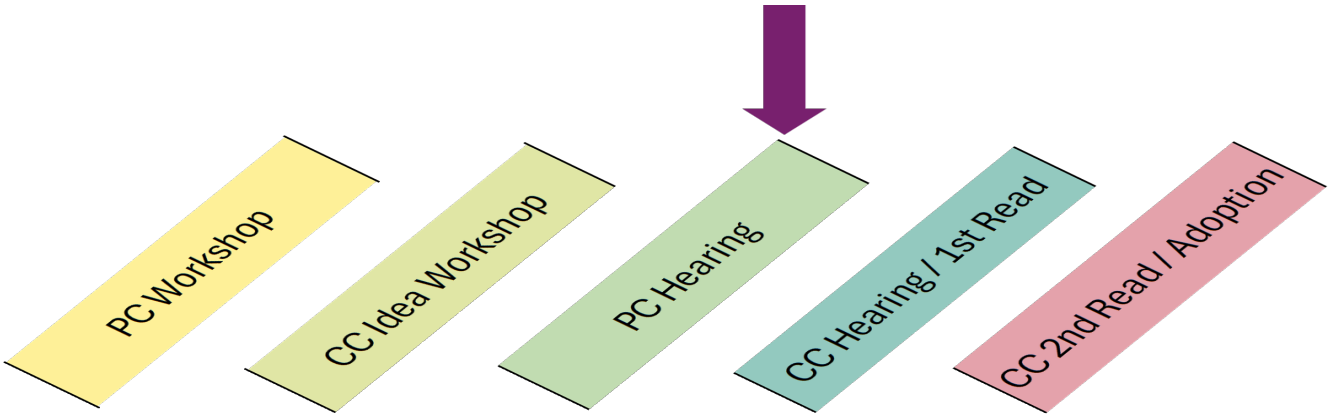
Key Points:
The City of Medical Lake Transportation Master Plan establishes a long-range, multimodal strategy to guide transportation investments and policy decisions through approximately 2050 and ultimate buildout. The Plan responds to steady population growth and anticipated new development within existing city limits and expansion areas, while maintaining the community's small-town character and quality of life. The core vision emphasizes a safe, accessible, and connected transportation system that supports all users (drivers, pedestrians, bicyclists, and transit riders) through "complete streets" principles, expanded multimodal options, and improved connectivity between neighborhoods, downtown, schools, and regional destinations.

The Transportation Master Plan is intended to serve as a key supporting document for the City's Comprehensive Plan update (2026–2046), Capital Improvement Plan, and Transportation Improvement Plan, providing the technical foundation, policy framework, and prioritized project list needed to guide future growth and infrastructure investment.

Background Discussion:
The City of Medical Lake is transitioning from operating without a formal, comprehensive transportation plan to adopting a coordinated, forward-looking framework that actively prioritizes multimodal travel. Historically, transportation improvements have been implemented incrementally and often focused on vehicle travel, resulting in gaps in sidewalks, bicycle facilities, and overall network connectivity. This Transportation Master Plan represents a significant shift in approach by establishing clear policies, goals, and projects that emphasize active transportation.

A SEPA determination of Non-significance was issued on May 29th. The notice was placed in the Cheney Free Press, posted at City Hall and the Post Office, and emailed to State and Local agencies. No comments were received.

This workshop is the third step in a 5-step adoption process for the Transportation Master Plan.



Public Involvement:
The concepts and strategies of Transportation Master Plan are based on the information gathered in outreach activities throughout 2025. Public Hearings will be held by the Planning Commission and the City Council. In addition, the draft is on the City website for review and comment by the public.

Next Steps:
The City Council is scheduled to hold a public hearing at the July 21, 2026 meeting to consider the Planning Commissions recommendation.

CITY OF MEDICAL LAKE

TRANSPORTATION MASTER PLAN

June 2026

City of Medical Lake

ACKNOWLEDGEMENTS:

CITY OF MEDICAL LAKE

Council Members

- Mayor Terri Cooper
- Heath Wilbur
- Ted Olson
- Don Kennedy
- Tony Harbolt
- Lance Speirs
- Lorin Ray-Abbott
- Chad Pritchard

Planning Commission

- Andie Mark
- Kevin Twohig
- JoeDavid Veliz
- Cindy Altheide
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City Administrator

- Sonny Weathers

City Senior Planner

- Elisa Rodriguez

PREPARED BY, CONSULTANTS

- CivTech
- Ardurra

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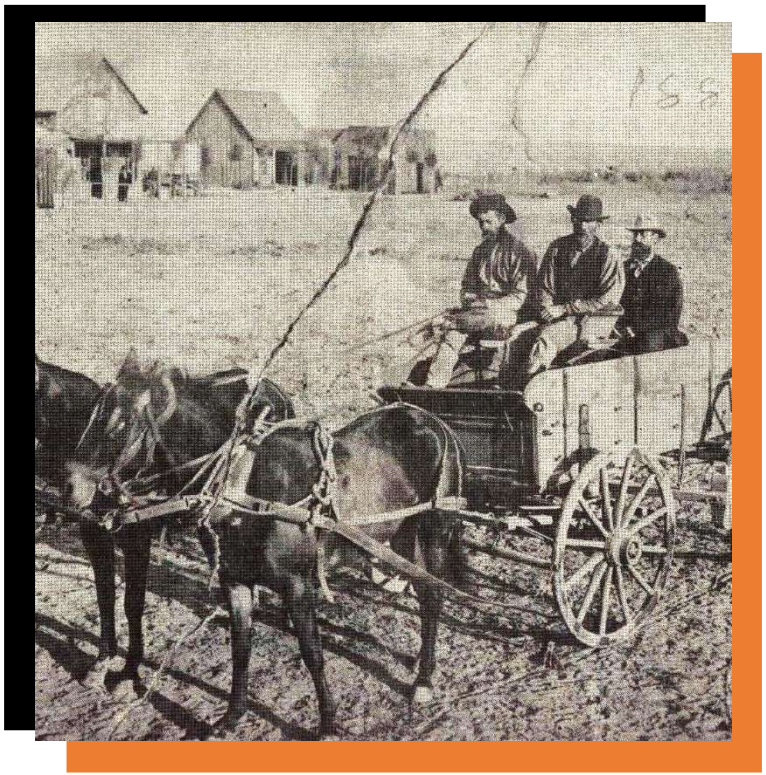
CHAPTER 1

INTRODUCTION



Chapter 1

Medical Lake, Washington has experienced a steady rate of population growth during the City's 135-year history. The city has grown from 617 people in 1890 to 4,915 people in 2023; an average 1.57% annual growth rate in population over time. However, there have been decades with strong gains, 30% increases have occurred, as precipitated by events like the construction of Eastern State Hospital in 1891 or the development of Fairchild Air Force Base in 1942. More recently, the early 2000's saw a significant increase in population with the construction of large housing developments.

City leadership desires and is promoting continued growth in the community. They are working to advance projects that increase water and sewer capacity, this will allow for housing and commercial/retail business development. In addition, leadership is promoting the family-friendly feel of a small and enjoyable downtown environment complimented by bike and pedestrian improvements to enhance primary routes with multimodal enhancements, designating some roads as complete streets. Leaders postulate that a walkable and bikeable City, supported by Spokane Transit Authority (STA) services, will support travel alternatives, reducing reliance on personal autos, to minimize travel demand, promote healthy lifestyles, provide context sensitive street appeal, and diminish environmental impacts.

A leading example includes the recently finalized Lefevre Street (SR 902) Pedestrian and Bicycle project, Hancock Street to Brooks Road. City officials collaborated with the Transportation Improvement Board (TIB) of Washington to upgrade 0.55-miles of sidewalk, lighting, planter boxes, bike lanes (coming this year), and trees in the downtown core. This has enhanced streetscapes and active transportation facilities, which are widely used by citizens who can walk or bike to work, or for those who enjoy active movements in the Medical Lake central business district for recreational purposes.

With growth, City leaders understand the potential does exist to increase vehicle travel demand. However, it is understood that the practical capacity of arterial streets and collectors is likely sufficient to support reasonable growth trends over the next 25-plus years. Yet, a few pivotal junctions and select street segments may experience capacity issues. With that understanding, the City would like to focus on transportation endeavors that improve multimodal networks, like Lefevre Street, to improve travel options and the community-focus of Medical Lake, as well as affecting environmental benefits. Again, the City recognizes the great benefits offered by Spokane Transit Authority (STA); they wish to incorporate bus facilities into street designs, where appropriate and as supported by STA.

At the direction of the Medical Lake City Council and City Leaders, the Medical Lake Transportation Master Plan (TMP

or Plan) recommends multimodal strategies and solutions for the City. The Plan recommends active transportation and transit solutions to build mobility options and help diminish impact on the operation of key intersections and roadways. The Plan provides goals and policy advice to help promote active mobility and complete streets objectives. The intent of the Plan is to present a network strategy for assuring safe, practical, and context sensitive movements for all modes of travel as based on the consideration/review of current and forecast travel conditions.

1.1 Purpose & Study Area

The Transportation Master Plan was developed in compliance with " best " Complete Street practices, pursuant to Title 8 of the Medical Lake Municipal Code (MLMC). Also, the Plan recognizes the guidance provided with Revised Code of Washington (RCW) Chapters 47.04.320 and 47.24.06. The Plan works to recommend multimodal projects relevant to and supportable by funding agencies like TIB and the Washington State Department of Transportation (WSDOT), as it pertains to complete streets, transit, and active transportation.

This Plan recommends mobility and multimodal solutions for addressing travel demand issues in Medical Lake over two horizons; the year 2050 and a full-build scenario. Improvements for the 2050 scenario are referred to as "short-term" and are meant for the 6-Year Medical Lake Transportation Improvement Program (TIP). The horizon is 2032, recognizing Council will adopt this plan by years end, and TIP updated and finalized by June of 2026.

At the request of City leaders, a full-build land use scenario was developed. The purpose of this analysis is to identify where roadway capacity constraints may emerge over the long term, enabling City leaders to plan for potential right-of-way needs and building setbacks when reviewing land use proposals or advancing street improvement projects for 2032 or 2050.

Traditional capacity and unique multimodal measures of effectiveness were employed to help identify projects and quantify how residents will interact with the street network. These analyses were used to develop solutions for the year 2032, 2050, and long-term conditions for Medical Lake.

Study Area

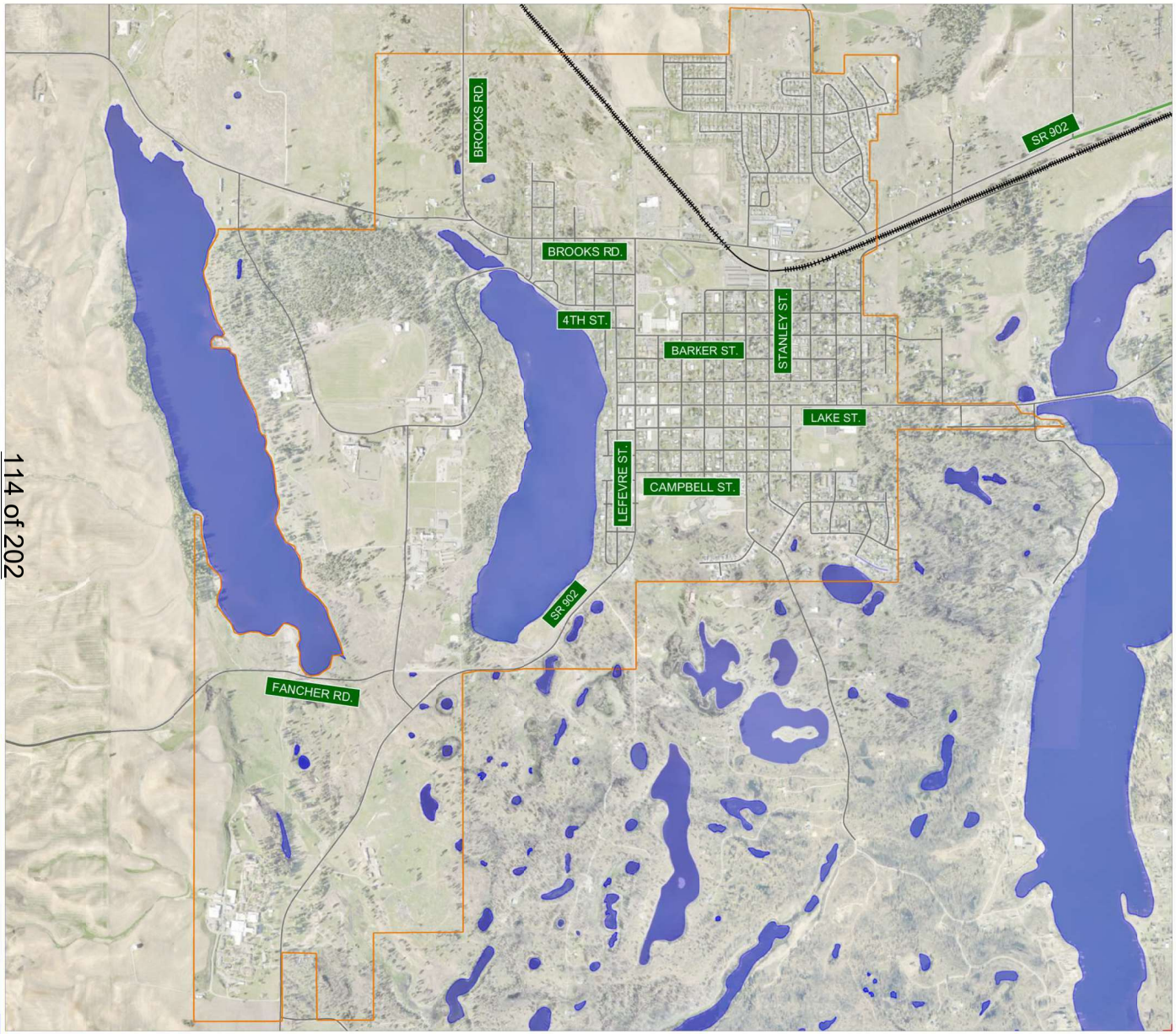
Medical Lake is situated in West Plains region of Spokane County about 14 miles southwest of the City of Spokane; aligned roughly midway between Interstate-90 (I-90) and U.S. Highway 2 (US 2). Access to/from the City is provided by State Route 902 (SR-902), Brooks Road, Lake Street, and Espanola Road/San Salvador Street. Fairchild Air Force base is 3.9 miles to the north; Airway Heights is 8.3 miles northeast. The City has commercial centers on Lake Street and Lefevre Street. Residential areas are aligned throughout the community. Streets are arranged mostly in a grid network; however,

newer neighborhoods have been laid out with limited through streets, the balance as dead-end streets with cul-de-sacs. SR 902 separates newer residential developments from rest of Medical Lake.

Arterials and collectors support most city commute needs as shown in Exhibit 3.1. A summary of these federally classified roads include:

- Arterials:
  - State Route 902 (East city limit to Lefevre)
  - Lefevre Street
- Major Collectors:
  - Brooks Road
  - Howard Street (Brooks Road to 4th Street)
  - 4th Street (Jefferson to DSHS campus)
  - Jefferson Street (4th Street to Lake Street)
  - Lake Street
  - Fancher Road
  - State Route 902 (Waterfront Park to South city limit)
- Minor Collectors:
  - San Salvador Street
  - Barker Street (Lefevre Street to Stanley Street)
  - Stanley Street (SR 902 to Campbell Street)
  - Campbell Street (Lefevre Street to Stanley Street)

The Plan was developed per directives of the City Council and staff, but it is recognized that other authorities have influence within Medical Lake's municipal boundaries. The Plan will be shared for review and comment by agencies such as Spokane County, WSDOT, and STA. **Exhibit 1.1** displays municipal boundaries and what will constitute the study area for the Plan.



N.T.S.

LEGEND

- CITY URBAN BOUNDARY
- WASHINGTON EASTERN RAIL

Exhibit 1.1

CITY AREA AND BOUNDARY

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

CHAPTER 2

GOALS & POLICY

Chapter 2

City officials are working on the 2026 to 2046 update to the Medical Lake Comprehensive Plan. This Transportation Plan highlights key objectives, goals and policies, which will guide development of the multimodal transportation network for the City. This section highlights the conclusions that will feed into the Transportation Element of the Comprehensive Plan.

2.1 City Background Documents

The context of the overarching visions of Medical Lake must be understood when developing this Transportation Master Plan. Through coordination with City leaders and the public, staff created a Vision Statement that supports development of the Comprehensive Plan. This statement is as follows:

> *The Comprehensive Plan endeavors to shape the City into the kind of place worth living, working, learning, and playing in all seasons of life by:*
>
> - *Nurturing Medical Lake's small-town charm and community spirit while honoring its history.*
> - *Integrating the natural and built environment in a thoughtful and sustainable manner.*
> - *Creating safe, walkable neighborhoods with accessible parks and housing for all.*
> - *Establishing equitable access to resources, strong social connections, and a healthy environment.*
> - *Encouraging a thriving economy through community partnerships and recreational tourism, with a focus on downtown revitalization.*

The statements of "*Creating safe, walkable neighborhoods with accessible parks and housing for all*" and "*Establishing equitable access to resources, strong social connections, and a healthy environment*" guide development of this Transportation Master Plan. The goals and policies identified, and many of the improvements highlighted by the Transportation Improvement Program, were developed to encourage a multi-modal network that provides access to community resources, connects citizens, and promotes healthy lifestyles.

In addition, City leaders created a foundation document for the Comprehensive Plan through prior development of a 2025 Strategic Plan that sets goals and objectives for managing the City. The Strategic Plan guides "*the important work of staff, citizen advisory boards, and Council as we strategically and collectively achieve the stated vision, mission, and values;*" resulting to the following target as it relates to transportation:

> *Multi-modal connections into and throughout the community. Advancing safe and reliable multi-modal transportation that facilitates the safe, efficient movement of people, goods, and services.*

The transportation strategic objectives that support this statement and the subsequent development of the Comprehensive and Transportation Master Plans were identified from the Strategic Plan. A summary of these select statements (from a range of objectives) include:

4.1 Integrated Multi-modal Transportation Network -

4.1.1. Have convenient, attractive, and visible pedestrian and bicycle access to community facilities and neighborhoods, making the trail system one of the state's best.

4.1.2. Use and maintain the transportation system effectively for all motorized and nonmotorized transportation modes within the city and between Medical Lake and neighboring communities.

4.1.3. Improve pedestrian and vehicular safety along city streets, especially SR-902, and enhance SR-902's ability to serve commercial land uses.

4.1.4. Improve aging and/or missing transportation infrastructure with safe accommodations for people and vehicles.

4.1.5. Improve safety for all travel modes in an attractive and distinctive streetscape and public realm.

4.2 Access to Transit -

4.2.1. Make public transportation available to all city residents and workers.

4.2.2. Improve transit availability and increase ridership.

2.2 Goals, Objectives, and Policies

The Strategic Plan and the draft vision statement for the Comprehensive Plan demonstrate the desire to improve mobility and safety along SR 902 and provide multimodal enhancements throughout the community. The following Goals and Policies were developed to meet the visions and objectives identified in these documents in coordination with City leaders.

Goal 1: A Safe, Low-Risk, and Human-Centered Transportation System

Create and maintain a transportation system that protects the lives and well-being of all users—including pedestrians, bicyclists, transit riders, motorists, and people with mobility challenges—through safe-systems design, proactive planning, and a commitment to reducing accidents.

Policy 1: Prioritize Vulnerable Users

Design and operate streets to protect the safety of people walking, rolling, biking, and using mobility devices, especially near schools, parks, downtown, transit stops, and along the State Route 902 corridor.

Policy 2: Adopt Safe-Systems and Complete Streets Principles

Design streets, crossings, and public spaces using safe-systems and complete-streets principles to reduce conflict points, slow vehicle speeds where appropriate,

improve crossings, and create safer conditions for all modes and ages.

Policy 3: Reduce Collisions

Focus investments and interventions on State Route 902 corridor and the intersection of Stanley and Lake Streets to reduce the likelihood and severity of collisions.

Goal 2: A Connected, Accessible, and Seamlessly Navigable Transportation System

Create a transportation system that provides convenient, and complete access for all people—regardless of age, ability, or mode—through a well-connected network of streets, sidewalks, trails, and transit that links homes, jobs, parks, schools, commercial centers, community services, and regional destinations.

Policy 1: Build a Complete, Connected Multimodal Network

Develop and maintain a network of walking, rolling, biking, and transit facilities that offer continuous, direct, and barrier-free connections between key destinations, including beginning and end of trip facilities.

Policy 2: Prioritize Accessibility for All Users

Ensure that transportation facilities meet ADA standards, support mobility-assistive devices, and remove barriers that limit access for seniors, youth, and individuals with disabilities.

Policy 3: Strengthen Local and Regional Connectivity

Enhance connections between neighborhoods and public services, parks, schools, transit stops, and commercial areas.

Policy 4: Enhance Wayfinding and Network Legibility

Provide clear signage, route information, and intuitive street and trail design that make the transportation network easy to navigate for residents and visitors.

Policy 5: Address Gaps and Barriers Proactively

Identify and fix sidewalk gaps, missing crosswalks, inaccessible transit stops, disconnected trail segments, and poor street connectivity.

Goal 3: A Mobility-Focused, Efficient, and Reliable Transportation System

Provide a transportation system that enables efficient, reliable, and seamless mobility for all users.

Policy 1: Improve Network Efficiency Across All Modes

Enhance the performance of the street, trail, and transit networks through system management, connectivity improvements, and multimodal planning.

Policy 2: Enhance Regional Mobility

Collaborate with regional partners to improve mobility between Medical Lake, Fairchild Air Force Base, and other West Plains job and commercial centers.

Goal 4: A Transportation System That Strengthens Community and Economic Vitality

Develop and maintain a transportation system that supports a thriving local economy, strengthens community identity, and enhances access to businesses, jobs, public services, and cultural destinations, while fostering vibrant, connected neighborhoods and commercial districts.

Policy 1: Support Local Business Districts Through Transportation Investments

Prioritize transportation improvements that enhance access, visibility, and circulation for local businesses.

Policy 2: Strengthen Community Identity Through Street Design

Use street design, public spaces, signage, and landscaping to reinforce community character, support placemaking, and create attractive gateways and corridors.

Policy 3: Promote Tourism Through Mobility Enhancements

Improve transportation access to parks, trails, historical sites, and regional attractions to support tourism, recreation, and local spending.

Policy 4: Integrate Transportation and Land Use to Foster Vibrant, Walkable Places

Coordinate transportation planning with zoning and development patterns to encourage mixed-use, walkable centers that attract businesses and enhance community vitality.

Goal 5: A Healthy, Sustainable, and Equitable Transportation System

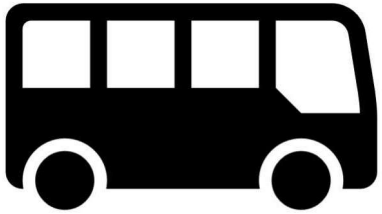
Create a transportation system that supports public health, reduces environmental impacts, and provides equitable and sustainable travel options for all residents—walking, biking, transit, and driving—while reducing greenhouse gas emissions and promoting active lifestyles.

Policy 1: Promote Active Transportation

Prioritize walking, rolling, and bicycling through infrastructure and land-use decisions that encourage daily physical activity and reduce dependence on single-occupancy vehicles.

Policy 2: Reduce Transportation-Related Emissions

Support low-carbon mobility options—including transit, EV infrastructure, and compact development patterns—to reduce greenhouse gas emissions, air pollution, and climate impacts.



CHAPTER 3

EXISTING CONDITIONS

Chapter 3

This section documents current travel conditions within the City and provides a basis for gauging the impact of future changes, as precipitated by land use development with associated traffic increases.

3.1 Demographics

Demographics were found using U.S. Census Bureau Data, available through American Community Survey, Decennial Census[1]. Also, the 2046 Medical Lake Land Capacity Analysis was used to augment population and land use discussions.

Population

Medical Lake was confirmed to have a current population of 4,874 people in 2020 by US Census. The 2046 Medical Lake Land Capacity Analysis confirms a 2023 population of 4,915, representing nearly 1% growth in 3-years. The Land Capacity analysis indicates the population of Medical Lake will increase to 5,159 persons by 2046, over a 5% increase over 23 years. This equates to 0.24% growth annually.

Relevant to the future condition's discussion, confirming the growth in population is important as it assures associated traffic gains will also occur. With that said, while population forecasts are useful for confirming that growth is anticipated by City leaders, per Chapter 4, land use forecasts provide the basis for estimating forecast travel demands.

This is mentioned to indicate that, even if population growth trends vary from what has been discussed, this will not have a bearing on the conclusions derived for this Plan. Land use is the basis for forecasting, and traffic impacts are related to development growth regardless of forecast year.

Current and future populations summaries are as follows:

- **2020:** 4,874 residents, Census
- **2023:** 4,915 residents, Land Capacity Analysis
- **2032:** 5,022 residents, Estimated from Annual Growth
- **2046:** 5,195 residents, Land Capacity Analysis
- **2050:** 5,245 residents, Estimated from Annual Growth

Medical Lake and the surrounding area are comprised of a single census tract. A tract is a geographic area for which the Census Bureau defines demographics, like population, housing, age, ethnicities, etc. Census Tract 139 encompasses the City of Medical Lake. This is shown by **Exhibit 3.1** on the next page. Key year 2024 census for Medical Lake is below:

- 19.1% are age 19 and under
- 15.8% are age 65 and older
- 49.2% are female persons
- 15.8% have a disability
- 8.4% of persons are in poverty
- 87.9% are White
- 6.2% are Hispanic or Latino
- 4.1% are Black

1. https://data.census.gov/all?q=Medical+Lake+city,+Washington

Economic

Economic demographics were studied to identify commute times, degree of vehicle dependency, and network use. Commute data helps provide an understanding of how residents are moving in the network, given employment data. This also provides insight into how the community is traveling in the system (travel mode). Salary data supports deductions regarding need for travel options. **Table 3.1** shows key economic factors identified from Medical Lake 2024 Census data.

Table 3.1. Economic Demographics

Category	Population Percentage
Employment:	
Employed	56.7%
Unemployed	0.7%
Not in Labor Force	43.3%
Commuting:	
Drives Alone	76.5%
Carpools	7.4%
Public transit	3.0%
Walked	2.1%
Work from Home	10.9%
Error / Not Known	0.3%
Income per Household:	
Less than $10,000	4.0%
$10,000 to $14,999	7.1%
$15,000 to $24,999	3.2%
$25,000 to $34,999	7.0%
$35,000 to $49,999	4.8%
$50,000 to $74,999	17.6%
$75,000 to $99,999	15.5%
$100,000 to $149,999	29.3%
$150,000 to $199,999	10.8%
$200,000 or more	0.8%

Source: United States Census Bureau

As shown, 43.7% of residents have household salaries that fall below a Spokane County median annual income of $75,000. 43.3% of the city population is not in the labor force (not of working age, does not work, or is retired). Also, 76.5% of the workforce drive or commute alone. Also, 10.9% of employees work from home, 7.4% commute by carpool, 3.0% use transit, and 2.1% walk or bike to work.

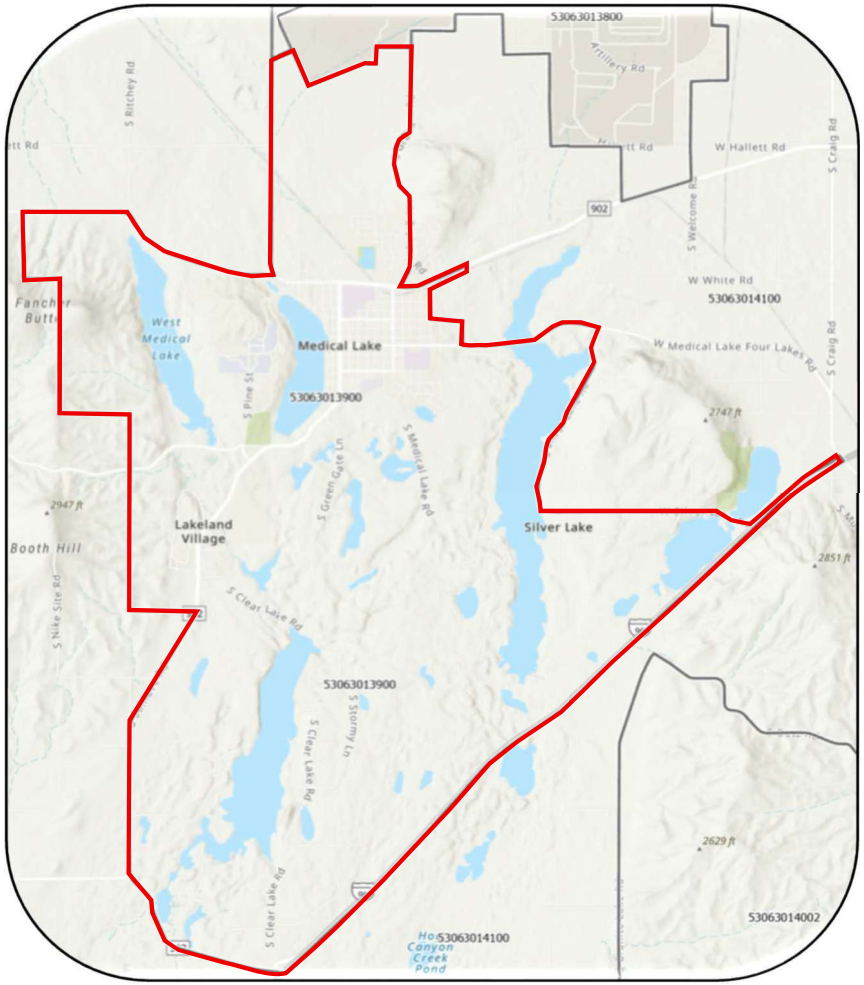


Exhibit 3.1. Medical Lake Census Tract 139 (Boundary Red Line)

A conclusion offered from Census data is an apparent reliance on personal automobiles. Increased multimodal infrastructure options could offer the benefit of improved health and/or reduced costs of autos. An extension of multimodal facilities would also reduce travel demand on roads, resulting in a reduction of infrastructure maintenance.

This reliance on personal autos will continue with growth and development unless multimodal projects are advanced. Providing accessible, connected multimodal networks is a focus of this Plan, per the direction of City officials, to address commute imbalances. The focus is on pedestrian, bicycle, and transit facilities to help redirect citizens away from single-use automobiles.

Housing

The US Census provides household data that may be used as an additional economic indicator, and this also provides growth details for Medical Lake. This data includes the number of homes, household types, and average housing size. **Table 3.2** summarizes key 2024 housing demographics for the city.

Data indicates 2,055 existing households have an average household size of 2.13 persons per home. With that said, there are 1,195 families in Medical Lake with an average size of 2.93 persons per family. The proportion of families having dependents older than 60 and younger than 18 are 30.7% and 21.7%, respectively.

The data indicates most residents own their homes (68.9%) with others as renters (31.1%). Most dwellings are single family homes (67.6%) with the next segment including multifamily units (26.6%) like town homes, apartments, or condominiums. The balance (5.8%) are mobile homes.

Table 3.2. Housing Demographics

Category	Percentage of Population
Household:	
Total households	2,055
Average household size	2.13
Families:	
Total families	1.195
Average family size	2.80
Household Type:	
Households with one or more people under 18 years	21.7%
Households with one or more people 60 years and over	30.7%
Householder living alone	36.5%
Units:	
1-unit structures	63.9%
2-or-more-unit structures	30.2%
Mobile homes and all other types of units	5.9%
Tenure:	
Owner-occupied housing units	66.1%
Renter-occupied housing units	33.9%

Source: United States Census Bureau

Collectively, a conclusion can be derived from housing data that enforces household income determinations. There is a need for multimodal infrastructure to provide travel choice;

this is evidenced by households with young or elderly drivers. There is also a high percentage of renters correlating with a high percentage of multifamily units and mobile homes; these are also strong indicators for the need for active transportation and transit accommodations.

Transportation

With housing and economic demographics established, the US Census provides travel characteristic information for the City of Medical Lake. Demographic data relates to commute times, which infers where people are working in relation to dwellings within Medical Lake.

The average commuter has a 21.4-minute commute (one-way). Of commuters, 29.0% of residents work in Medical Lake, the near areas of the West Plains, and at Fairchild Air Force Base; supported by commute lengths of 14 minutes or less. About 70% work outside of the city, defined by commutes that exceed 15 minutes, traveling to and from areas such the City of Spokane, City of Spokane Valley, and other areas of Spokane County. Roads with the most demand during the commute peak hours (in traveling to/from Medical Lake) include SR-902, Brooks Rd, I-90, US-2, and Craig Road.

3.2 Street Network

The street network within Medical Lake is primarily aligned as a grid system, which is an efficient way of moving residents between land uses. Contrarily, while providing residential appeal, cul-de-sacs and curved streets can have dead ends and are often disconnected. This creates longer travel distance between major streets and destinations. A grid system with more connecting streets should be implemented to promote multimodal mobility. A network with dead ends, long blocks, and horizontal curves should be limited as to not reduce mobility. The City prefers an enhanced network approach. In fact, dead end streets (cul-de-sacs) are limited by MLMC, allowed only with permission of the Public Works Director.

Most of the City's older neighborhoods, including the downtown and business districts, follow a traditional street grid that provides multiple access points, short blocks, and no dead-end streets. In contrast, some newer residential areas were built with cul-de-sacs, curvilinear streets, and limited connectivity. The City is now moving away from this development pattern, consistent with MLMC standards, to reduce barriers to mobility and strengthen the overall transportation network.

I-90 and US 2 are the major Highways that access this region; of which, Medical Lake capitalizes on regional access mostly from I-90. State Route 902 is the highest utilized route to access the City from I-90; this route loops through the City to connect with I-90 at the Cheney-Medical Lake Interchange (Exit 264) and the Medical Lake Interchange (Exit 272).

San Salvador Road (Espanola Road), Brooks Road, Fancher Road, and Lake Street (Medical Lake / 4-Lakes Road) are secondary routes to/from the City. They extend into Spokane

County, and in the case of Brooks Road, extend north to provide access to/from US 2. Dominant travel patterns/commutes include:

- City of Spokane by SR 902 east to I-90 and Exit 272.
- West Plains industry by SR 902 east.
- Fairchild Air Force Base by Brooks Road to US 2 or SR 902 to Craig Road.
- Airway Heights via SR 902 to Craig Road or Hayford Road.
- Western Washington via SR 902 to Exit 264 or Brooks Road to US 2.

Inventory

Roads are classified to understand how each serves local, regional, and State mobility. Federal Functional Classification (FFC) is the designation used by the Federal Highway Administration (FHWA) to classify roads, and this has been adopted by Washington State and most local agencies. Medical Lake's FFC map is shown in **Exhibit 3.2**.

Compliance with the FFC is imperative for funding requests, as grants require class designations to be eligible for award. Classes include interstates, highways, principal and minor arterials, major and minor collectors, and local streets, often with urban or rural distinction. Class definitions are noted by mobility and accessibility characteristics that define as found on the FHWA website:

https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/section03.cfm

A description of functional classifications is as follows:

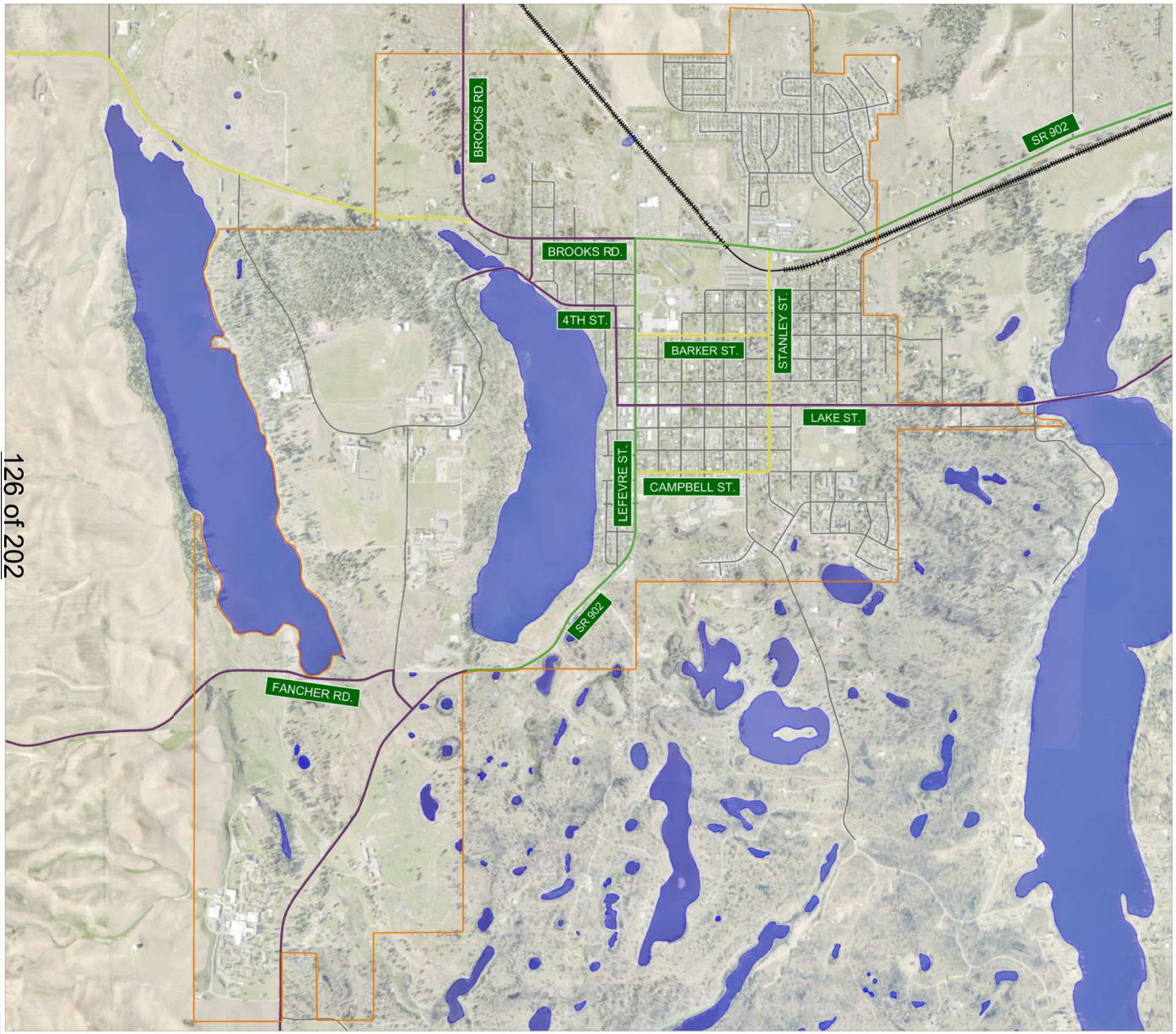
Principal Arterial. Streets and roads connecting primary community centers with major facilities. Principal arterials serve through traffic with limited direct access to abutting land uses.

Minor Arterial. Streets and roads connecting community centers to principal arterials, with partially controlled and infrequent access to abutting land uses.

Collector. Streets and roadways connecting residential commercial centers and residential neighborhoods with smaller community centers and facilities as well as access to minor and principal arterials. Through traffic is a lesser priority and access to abutting land uses is a priority.

Local Street. Streets and roadways providing access to abutting land uses as well as principal, minor and collector arterials. Through traffic is not a priority.

Access Street. Perform a variety of functions with the primary purpose of providing access to abutting land uses. Through traffic is not encouraged and buses and heavy trucks are not recommended except as needed for commercial or industrial uses. Also serve as easements for utilities and open spaces between buildings and as an element to the urban environment.



N.T.S.

LEGEND

	PRINCIPAL ARTERIAL
	MINOR ARTERIAL
	MAJOR COLLECTOR
	MINOR COLLECTOR
	LOCAL STREET
	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL

Exhibit 3.2 — EXISTING FEDERAL FUNCTIONAL CLASSIFICATIONS (FFC)

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

Medical Lake uses a statutory speed limit of 25 mph unless posted otherwise per MLMC Ordinance 8.08. A summary of classifications, speed limits, and other road characteristics is summarized with **Table 3.3**. Note there are no principal arterials within the City.

Table 3.3. Road Data

Functional Class and Street	Alignment/Limits (North to South & West to East)	No. Lane	Speed (mph)
Minor Arterial			
SR 902	Lefevre St to City Limit	2	30
SR 902 (Lefevre St)	Brooks to Waterfront Park	2	30
Major Collector			
W 4th Street	Howard St to Jefferson St	2	20 - 25
Brooks Road	City limits to Lefevre St	2	30
Howard Street	Brooks Rd to W. 4th St	2	25
Jefferson St	W. 4th St to Lake St	2	20 - 25
Lake Street	Lake St to City Limit	2	20 - 25
SR 902	Waterfront Park to City Limit	2	30
Fancher Road	City Limit to SR 902	2	25 - 30
Minor Collector			
Barker Street	SR 902 to Stanley St	2	20
Campbell Street	SR 902 to Stanley St	2	20 - 25
San Salvador Street	City Limit to Brooks Rd	2	30
Stanley St	SR 902 to Campbell St	2	25

3.3 Traffic Counts & Capacity

This Plan focuses on the safety and multimodal elements of the street network. Available average daily traffic (ADT) counts were assembled for baseline information, and for a high-level capacity analysis. Counts were collected from WSDOT for functionally classified SR 902.

Capacity Methodology

Street capacity review for this Transportation Master Plan measures current and forecast average daily traffic (ADT) volumes against levels-of-service (LOS) thresholds shown in the 2020 Quality/Level-of-Service Handbook (Florida DOT, 2020). The methods presented by this handbook use street cross-section (i.e., number of lanes), speed, class, and travel assumptions to quantify conditions. The fundamental capacity methods are based on the regionally and locally accepted/endorsed methods of the Highway Capacity Manual (HCM); this FDOT resource presents an approach which simplifies capacity results for use in planning analyses. Further definition and description of LOS are included as **Appendix B**.

Thresholds used for this Plan are based on the FDOT category that pertains to "State Signalized Arterials" in a suburban environment. Per FDOT methodology, these volumes are reduced by 10% in application for town streets. However, an adjustment of 15% was applied to establish capacity for three and five-lane sections. The resulting LOS capacity thresholds used for the City are shown in **Table 3.4**.

Table 3.4. Street Capacity Thresholds				
Functional Class	Arterial	Collector	Local	Alley
Number Lanes	Average Daily Traffic			
- Two lanes	13,300	6,600	2,000	200
- Three lanes	15,300	7,600	NA	NA
- Four lanes	29,200	13,100	NA	NA
- Five lanes	33,600	15,100	NA	NA

The volumes above are thresholds that suggest a practical capacity limit; over which, the roadway will not function well. An additional metric is the volume-to-capacity ratio.

A volume-to-capacity (V/C) assessment is performed by dividing the count or forecast volume with the applicable threshold above. When using this metric, a V/C ratio of 0.79 or less indicates practical street capacity is available. An assessment of 0.80 to 0.99 is noted as "approaching standard." Finally, V/C noted at 1.0 or higher should be identified as surpassing available street capacities.

The City does use level of service (LOS) as the rating system for the capacity of roads. LOS "D" is a reasonable and an achievable standard for the City of Medical Lake's principal arterial roadways. The thresholds prior relate to the LOS C standard for arterials and collectors. If the V/C above are below the approaching threshold condition, a LOS A or B equivalent is reached, 0.79 or less. If the V/C of 0.80 to 0.99 occurs, a LOS C equivalency is reached. Exceeding 1.0 indicates the LOC C standard is not met; possibly triggering need for mitigating improvement measures.

Volumes and Capacity Review

The traffic counts identified prior were reviewed against FDOT capacity thresholds relating to V/C and LOS requirements. Again, SR 902 counts were identified from WSDOT GIS for the year 2023. These counts are recent enough for capacity analysis. A summary of the volume, capacity threshold, a V/C calculation, and an equivalent LOS grade is provided with **Table 3.5** for the typical weekday.

Table 3.5. Existing Street Capacity Analysis				
SR 902 Location	ADT* Volume	LOS Threshold	V/C Calculation	Equivalent City LOS
East City Limit	8,765	13,300	0.66	≤ LOS B
Stanley Street	6,390	13,300	0.48	≤ LOS B
Lefevre Street	5,790	13,300	0.44	≤ LOS B
Lake Street	4,630	13,300	0.35	≤ LOS B
Jefferson Street	2,765	13,300	0.21	≤ LOS B

As shown, an equivalent LOS B or better is noted for SR 902 from Lefevre Street to the eastern City limits. The conclusion is also confirmed for Lefevre Street to the southern City limit. The determinations are made as V/C are all below 0.79.

3.4 Freight

WSDOT officials specify five tonnage classes for roadways in the State ranging from T5 with 20,000 tons in 60 days to T1 with

over 10,000,000 tons per year. The truck routes in and around Medical Lake with tonnage class listings as follows:

- T3 (300,000 to 4,000,000 tons/year) – SR 902 (Lefevre Street), Brooks Road, and San Salvador/Espanola Road.
- T5 (20,000 to 105,000 tons/year) – Fancher Road

The Washington Eastern Gateway rail line is aligned through the north City limits, owned by WSDOT. This line extends from Coulee City to Cheney spanning the Cities of Hartline, Almira, Wilbur, Creston, Davenport, and Reardon. There is a transfer location in Cheney where access is secured to the Burlington Northern-Santa Fe and Union Pacific rail lines, respectively.

This is a R3 rail line, supporting 300,000 to 4,000,000 tons/year. A map of freight and rail routes are shown with **Exhibit 3.3,** as distinguished by routes by tonnage class.

3.5 Safety

Collision histories were reviewed for all roads in Medical Lake, including intersections, driveways, and mid-block locations. Collisions were reviewed for a timeline ranging from January 1, 2020, to December 31, 2024. Collision data was sourced through a records request of the WSDOT safety office. Raw Collision data is provided in Appendix C.

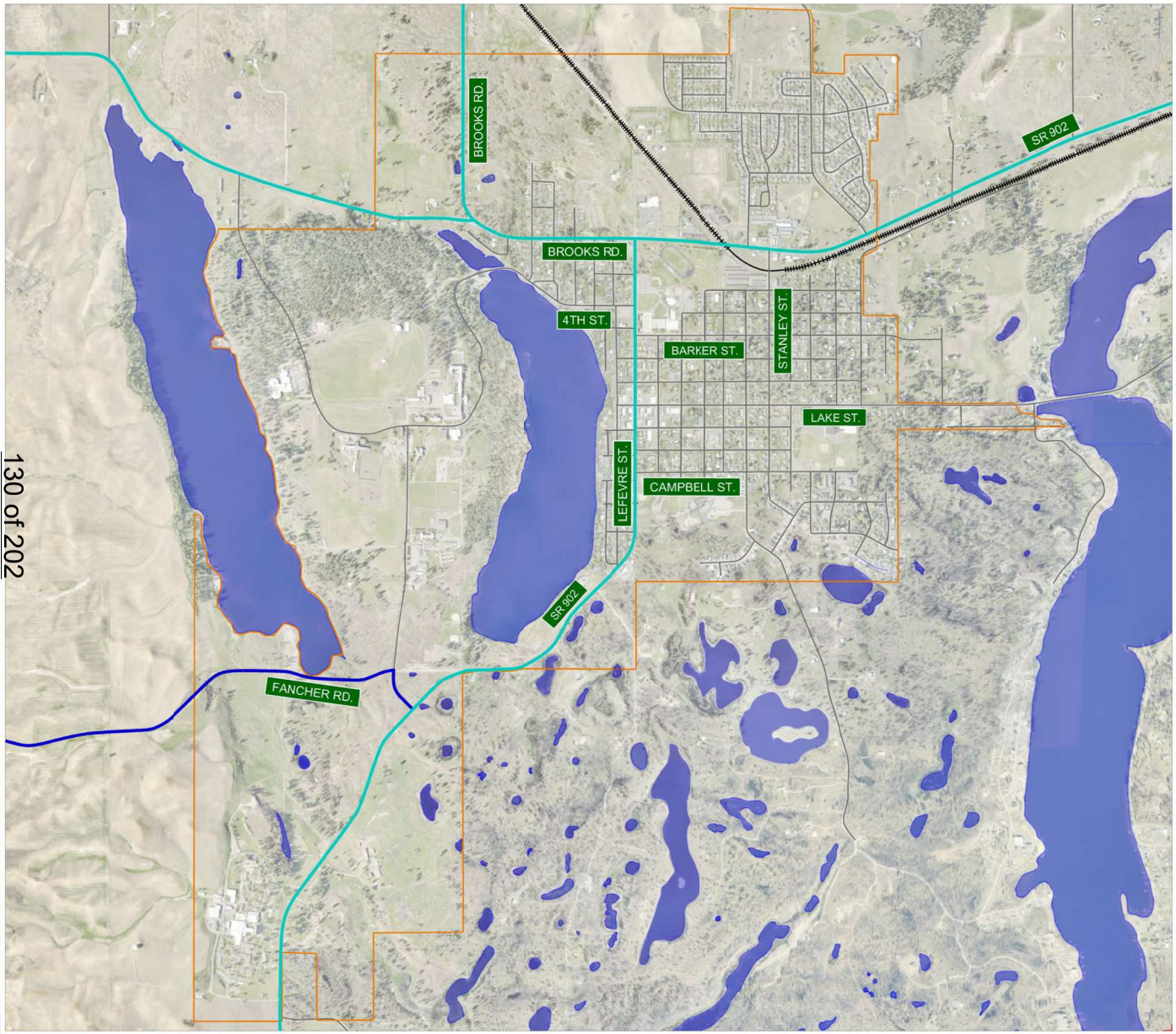
A total of 83 recorded collisions occurred in the 5-year study period, an average of 17 incidents a year. When reviewing collision data, it is important to note an incident may involve two or more vehicles, but this is reported as one accident. Thus, it should be noted that there were 151 vehicles involved in 83 reported collisions within the City of Medical Lake.

Overall, 33% of collisions involved injuries (27-incidents). Three (3) incidents included a serious injury. There were no fatalities noted from collision data. No pedestrian or bicycle-related incidents were reported. Per WSDOT data, 57% of collisions (47 incidents) occurred at intersections. 7% of collisions (6-incidents) were noted at driveways. 36% of collisions (30-incidents) occurred between intersections and driveways.

Collision types and occurrence summaries are as follows:

- 39% right angle; a right-turn vehicle and a through vehicle collide at an intersection or driveway.
- 29% object; vehicle collides with an object, a parked vehicle, or runs off road.
- 18% same direction sideswipe; vehicle strikes another in an adjacent lane traveling same direction.
- 6% left angle; left-turn vehicle tees into another going straight or turning left opposite direction.
- 5% opposite sideswipe; through vehicle hits another through vehicle traveling opposite direction.
- 2% Animal Strike; vehicle hits a wild or domesticated animal large enough to cause vehicle damage.

Accidents were shown graphically by **Exhibit 3.4** for years 2020 to 2024 for Medical Lake.



N.T.S.

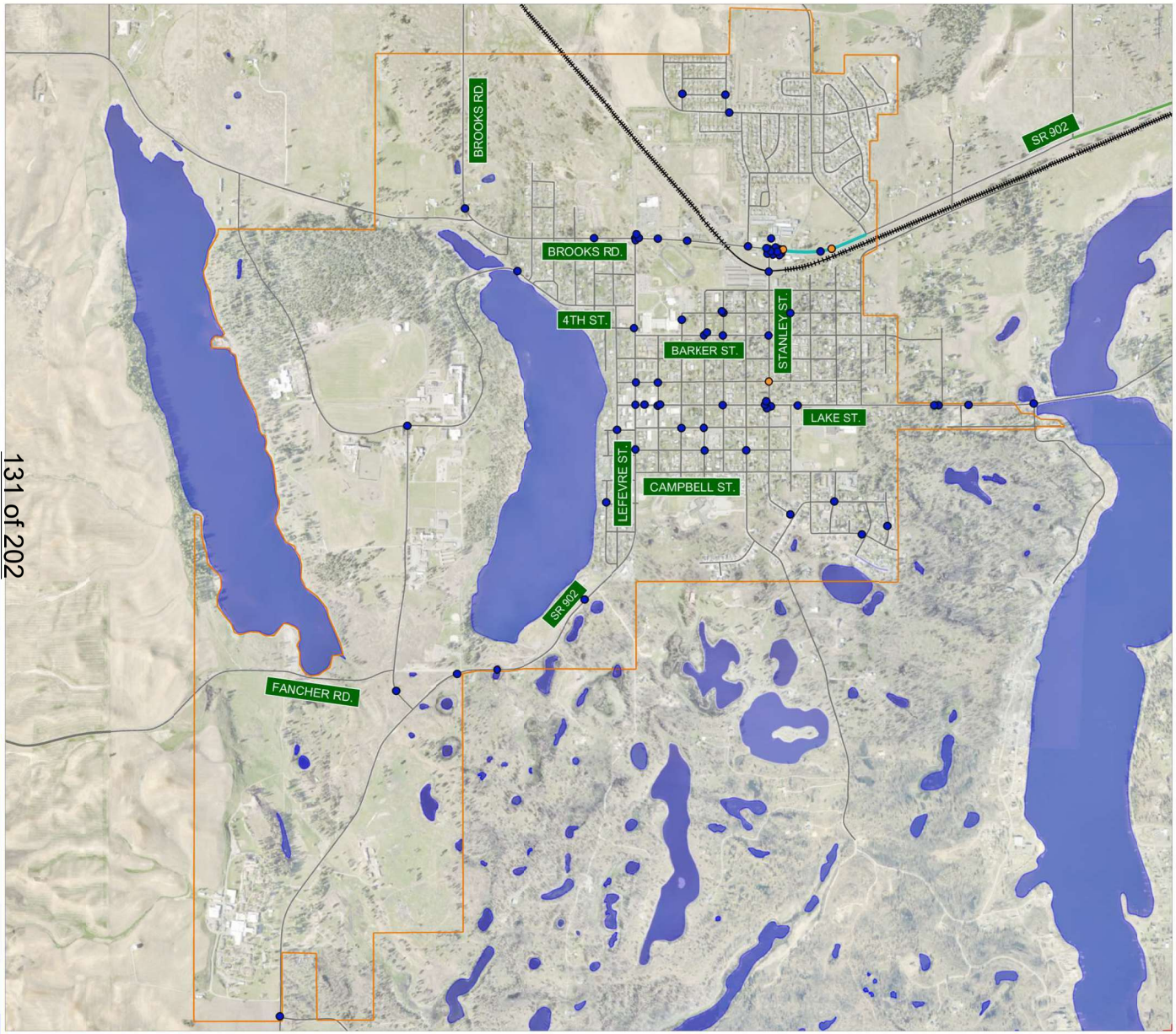
LEGEND

	T-3 TRUCK ROUTE
	T-5 TRUCK ROUTE
	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL - R-3 RAIL ROUTE

Exhibit 3.3

MEDICAL LAKE FREIGHT MAP

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON



N.T.S.

LEGEND

	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL
	DAMAGE ONLY OR MINOR INJ.
	SEVERE INJURY
	SRTC HIGH INJURY NETWORK

Exhibit 3.4

5-YEAR COLLISION (2020-24) HISTORY MAP

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

Table 3.6. Summary Intersection Collisions		
Intersections	Total	Avg
Lake & Stanley	13	2.6
SR 902 & Stanley North	5	1.0
SR 902 & Lefevre	5	1.0
Barker & Brower	2	0.4
Fellows & Walker	2	0.4
SR 902 & Stanley North	1	0.2
Barker & Stanley	1	0.2
Fellows & Prentis	1	0.2
Fellows & Barker	1	0.2
Grace & Washington	1	0.2
Herb & Hallett	1	0.2
Herb & Brower	1	0.2
Lake & Walker	1	0.2
Lake & Broad	1	0.2
Lake & Freeman	1	0.2
Maple & Spruce	1	0.2
Broad & Ladd	1	0.2
Stanley & Ladd	1	0.2
Stanley & SR 902	1	0.2
Grant & Evergreen	1	0.2
Jefferson & Hancock	1	0.2
William & Connie Ray	1	0.2
SR 902 & Hancock	1	0.2
SR 902 & Lake	1	0.2
SR 902 & Ladd & First	1	0.2
SR 902 & Third	1	0.2
Totals	47	9.4

Focus Area

Intersections are typically the focal point of incidents within a community. As indicated, 57% of recorded City collisions occurred at intersections. Collision data was reviewed to identify high incident intersections in. A summary of recorded incidents is shown with **Table 3.6** (page 22).

As shown, most intersections in the City experienced a single incident in 5 years. Of 26 intersections, only five experienced two or more collisions, and three with five or more incidents. These later three intersections are of concern to the City.

A review of safety conditions was performed for the three high incident intersections. Solutions were developed using guidance provided by a *Manual on Uniform Traffic Control Devices* (*MUTCD, 11th Edition, FHWA*) and *A Policy on Geometric Design of Highways and Streets* (*7th Edition, AASHTO*). A summary of discussion is as follows.

Lake Street / Stanley Street, 13-Incidents

Data indicates 12 of the 13 collisions were right angle, the primary contributing factors include "Did not grant right-of-way to other vehicle" or "disregard traffic sign." From the field review and consideration of data, it seems that drivers do not expect a two-way stop at this location. In addition, clear sight lines are limited in three of four corners.

Drivers commuting Stanley Street stop and roll forward, not expecting moving traffic and having a blocked view of approaching vehicles. Conversely, moving eastbound and westbound drivers, also with limited sight lines, do not anticipate vehicles pulling forward into the intersection. The result is an incident.

Improvement options to incrementally help address the incident issue:

- Add cross traffic (MUTCD W2-1) and street name (W16-8P) signs on Lake Street in advance of Stanley Street letting drivers know there is cross traffic ahead.
- Add stop signs (MUTCD R1-1) to convert into an all-way stop. This could be blinking solar lights if the City wished

to increase visibility. Advanced "stop ahead" signs (MUTCD W3-1) can be used to notify drivers of the all-way stop. The signs would replace those noted above.

- Install a compact urban roundabout with pedestrian and bicycle treatments, spitter islands with crossing refuge, and a mountable-center island.

SR 902 & Stanley Street North, 5-incidents

WSDOT data indicates 4 of 5 collisions were same direction sideswipes. Contributing circumstances include "Following too closely," "Did not grant right-of-way to other vehicle," and "Exceeding reasonable safe speed" were identified for 4 out of the 5 collisions as well.

A field visit and data suggest there is a geometric issue staging incidents between the westbound through and right-turn vehicle movements. The causal factor of incidents is not as apparent as the prior issue. However, a narrow westbound through-lane matched with a right turn lane having a shorter than MUTCD-recommended taper, given posted speed, and with location of the driveway in the turn lane, may contribute to the collision issue.

Incremental improvements to help address the issue include:

- Reflective pavement markers could be used to clearly separate through and right-turn lanes at the junction.
- Relocate drive west and lengthen the taper of the right-turn lane, as possible; the AASHTO recommended transition rate is 165-feet, but this will not be fully achievable given built environment.
- Install a compact urban roundabout with pedestrian and bicycle treatments, spitter islands with crossing refuge, and a mountable-center island.

SR 902 & Lefevre Street, 5-incidents

WSDOT data indicates all incidents involved "Entering at angle" with the contributing circumstances "Did not grant right-of-way to other vehicle" and "Exceeding reasonable safe speed."

As before, WSDOT data and a field visit do not indicate a strong causal factor. However, this is a large intersection, and the westbound SR 902 movement does not stop (free movement). These factors likely lead to confusion over driver right-of-way.

Potential remediations to incrementally help address the collision issue include:

- Add a stop sign (MUTCD R1-1) on the westbound approach to convert into an all-way stop. Advanced "stop ahead" signs (MUTCD W3-1) should be used to notify approaching drivers of the

all-way stop. Solar stop signs with flashing lights can be used if the City wishes to promote higher visibility.

- Install a compact urban roundabout with pedestrian and bicycle treatments, splitter islands with crossing refuge, and a mountable-center island.

SRTC High Injury Network

The Spokane Regional Transportation Council (SRTC) reviews collision data for Spokane County. Through this regional review, the SRTC has identified SR 902 as a part of the high injury network (HIN) for a segment extending from south Stanley Street to Graham Road. An HIN determination was based on eight collisions identified from a review of 2018 to 2022 collision data.

There are two incidents that occur in this segment with the 2020 to 2025 data used by this Plan. This is a reduction from the SRTC data. The conclusion from this comparison is that this is a "watch" segment of the corridor; meaning the City should monitor collision data for this area. If the incident trend goes up, then remediations can be considered. In the interim, no recommendations are provided.

CHAPTER 4

FORECAST CONDITIONS

Chapter 4

This section summarizes forecast transportation conditions for roadways identified for analysis by City officials. Provided is a description of the forecast land use assumptions, developed traffic forecasts, capacity conditions, and recommended road and intersection improvements.

4.1 Traffic Forecasts

Travel forecasts were generated from land uses assumptions documented by the Medical Lake Land Capacity Analysis, refined in coordination with City officials. The Land Capacity Analysis (LCA) indicates there are 150-acres of undeveloped or underdeveloped residential and commercial properties in corporate limits. These were assumed for future land use development with this Transportation Plan.

In addition, City staff has proposed two urban growth area expansions for future development, anticipating the growth areas above will be absorbed in the indefinite future. A summary of these locations include:

1. **North Growth Area**
   90-acres, north City limits between Washington Eastern Rail and Graham Road.
2. **East Growth Area**
   100-acres, south of Lake Street and east of Sherman Avenue to Silver Lake.

Further, the LCA indicates Medical Lake is expected to gain an additional 204 single family homes and 89 multi-family units, based on the current zoning ordinance. Minimal commercial growth is anticipated; a 5,000 square-foot retail pad was assumed in coordination with City officials. These comprise year 2050 development forecasts.

Full build land uses were developed per discussion with City staff. Full growth includes the occupancy of 150-existing acres and 230-expansion acres; total growth of 380-acres. Including year 2050 development assumptions, full build represents the construction of 615 single family units, 1,035 apartments and townhomes, and 27,000 acres of commercial/retail area.

A 550-student elementary school was also assumed on a 10.3-acre site owned by the school district; just north of the City wastewater treatment plant and west of Tara Lee Avenue. The full-build scenario is to assess system capacity, not predict the need in a certain year.

A summary of land use assumptions for year 2050 and the full build condition is summarized as follows:

Year 2050 Land Use Assumptions

- Single Family Homes, 204 homes
- Multifamily (Apartments & Townhomes), 89 units
- Shopping center/Commercial, 5,000 square feet (s.f.)

Full Build Assumptions

- Single Family Homes, 615 homes
- Multifamily (Apartments & Townhomes), 1,035 units
- Shopping Center/Commercial, 27,000 s.f.
- 550-Student Elementary School

These are land uses for new construction and not businesses or residences that exchange hands and/or are reoccupied. In most situations, such an exchange results in the roughly equal generation of trips and there is minimal need for reconciliation for a study like this Transportation Master Plan.

Land Use Allocation

The location and allocation of land uses are driven by parcel location, land use type, and density assumptions (i.e., housing units and building area), as developed in coordination with City officials. Residential and commercial land uses were organized into 23 aggregated transportation analysis zones (TAZs) which help simplify the presentation of data and help with the assignment of forecast trips onto the street network.

Exhibit 4.1 shows the City TAZ's; also listed is a development assumption for each zone. The following TAZ's are noted as the urban growth areas specified prior.

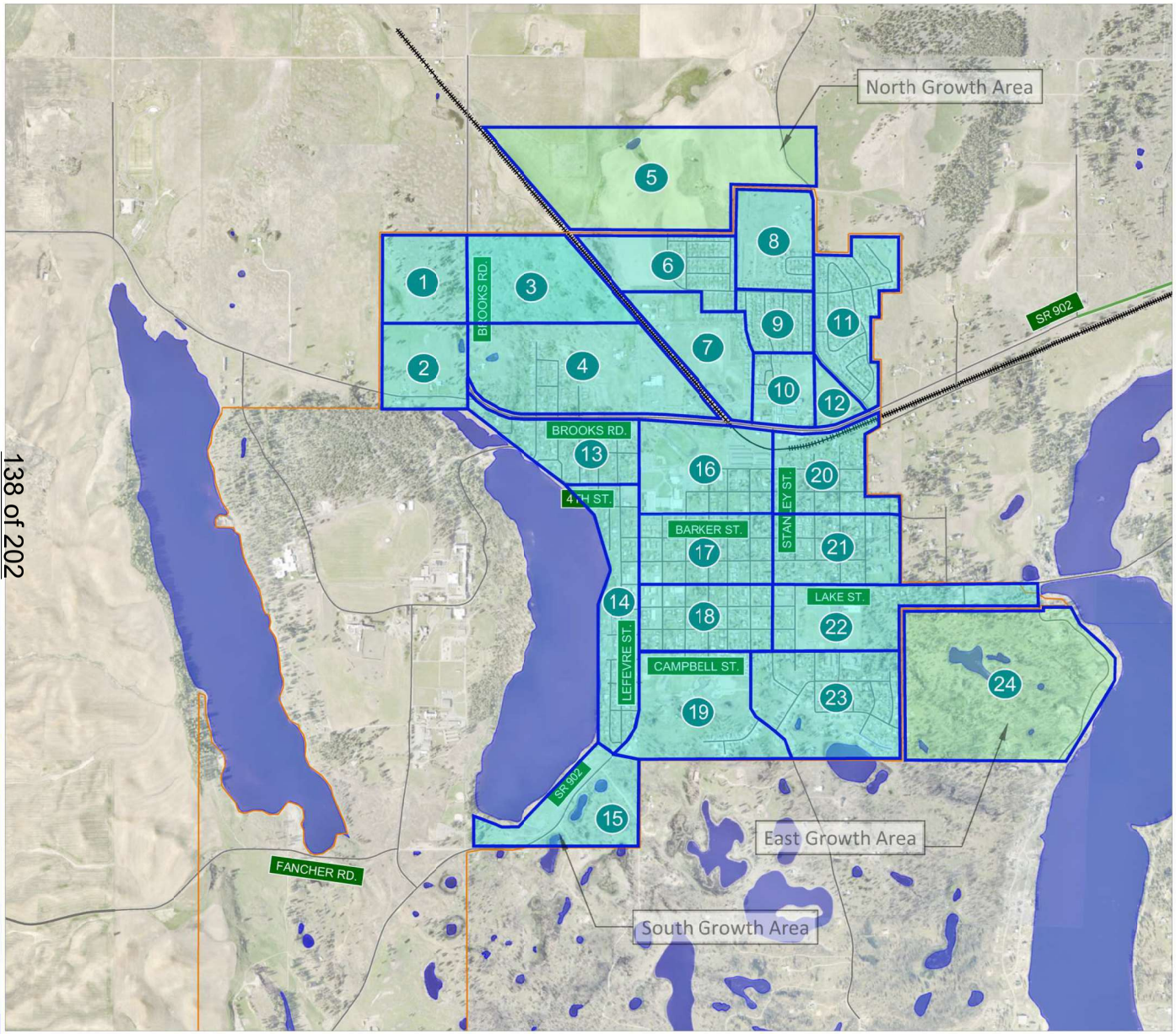
1. North Growth Area – TAZ #5
2. East Growth Area – TAZ #24

Trip Generation

Residential and commercial trip generation was forecast using the *Institute of Transportation Engineers (ITE), Trip Generation Manual* (11th Edition, 2018). Trip Generation is a nationally recognized and locally accepted approach for forecasting traffic for a range of commercial, retail, residential, and institutional land uses. The ITE provides rates and equations that forecast trips for different land uses based on variables such as building area or the number of dwellings.

ITE Land Use Codes 210 and 220 were used to forecast trips for single family homes and multifamily units, respectively. The multifamily land use includes apartments and townhomes for this Transportation Master Plan; this traditionally is a general land use that has wide application. Commercial trips were forecast using Land Use Code 822, which is small-venue retail comparable to "strip" style shops, services, and restaurants) within a small footprint building or buildings). Code 520 was used to predict trip generation for an elementary school.

Trip generation was forecast for the weekday and PM peak hour, periods of travel relevance for Medical Lake. Forecasts were prepared for year 2050 and the full-build condition. Trip generation summaries are provided by **Table 4.1** (page 30).



N.T.S.

LEGEND

	CITY URBAN BOUNDARY
	TAZ BOUNDARY
5	TAZ AREA
5	UGA TAZ AREA

TAZ UNIT ASSIGNMENTS

	Year 2050			Full Build			
TAZ	Single Family (Units)	MultiFamily (Units)	Commercial (Square-Feet)	Single Family (Units)	MultiFamily (Units)	Commercial (Square-Feet)	School (Students)
1	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
4	12	0	5,000	12	265	27,000	0
5	50	0	0	375	0	0	0
6	0	0	0	0	0	0	550
7	0	0	0	0	0	0	0
8	50	0	0	50	0	0	0
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
12	0	0	0	0	115	0	0
13	15	0	0	15	0	0	0
14	5	0	0	5	0	0	0
15	25	30	0	80	30	0	0
16	2	0	0	2	0	0	0
17	2	0	0	2	0	0	0
18	3	0	0	3	0	0	0
19	2	30	0	3	115	0	0
20	1	0	0	1	0	0	0
21	4	0	0	7	0	0	0
22	5	0	0	7	0	0	0
23	3	0	0	4	0	0	0
24	25	30	0	50	510	0	0
Totals	204	90	5000	616	1035	27000	550

Exhibit 4.1

CITY TRANSPORTATION ANALYSIS ZONES

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

Table 4.1. Year 2050 & Full-Build Trip Generation						
Land Use	ITE Code	Units	Weekday Trips	PM Peak Hour		
				In	Out	Total
Year 2050 Trip Generation						
Single-Family Homes	210	204 homes	1,915	123	71	194
Multifamily Homes	220	89 units	600	28	17	45
Commercial / Retail	822	5,000 s.f.	270	17	16	33
		Trip Totals	***2,785***	***168***	***104***	***272***
Full Build Trip Generation						
Single-Family Homes	210	616 homes	5,805	366	215	581
Multifamily Homes	220	1,035 units	6,975	332	196	528
Commercial / Retail	822	27,000 s.f.	1,470	89	89	178
Elementary School	520	550 students	1,250	40	48	88
		Trip Totals	***15,500***	***827***	***548***	***1,375***
* Source ITE Trip Generation Manual, 11th Edition						

As shown, 2,785 weekday trips are forecast for 2050 with 272 trips generated during the weekday PM peak hour. Peak hour trips comprise 9.8% of weekday trips with the 25-year horizon. Expected with full build of the City, approximately 15,500 trips are projected during the weekday with 1,375 trips generated during the PM peak hour. PM peak hour trips comprise 9% of daily trips with the long-range analysis horizon.

Note this project was initiated prior to the recent release of the 12th Edition of the *Trip Generation Manual*. A conversion from the 11th Edition was not made as work had been performed. However, trip generation forecast with Land Use Codes 210, 220, 520, and 822 did not differ notably between the 11th and 12th Editions. Thus, the source of trip forecasts is inconsequential within the scope of the land uses reviewed for this Plan

Trip Assignment

Given the scope of this study was limited to a few major City streets, a hand-forecasting method was used for this Plan. It was confirmed with City officials that development of a travel demand model was unnecessary, being beyond the scope of what the City was looking to accomplish for this project, given: 1) the understanding that capacity was not going to be the primary issue for this project and 2) the City's wish to focus primarily on multimodal needs and issues for this Plan.

TAZs were aggregated into areas of Medical Lake that share cohesion in terms of accessibility. These are land use areas that use the same roads for commute purposes around town and to/from the area. Peak hour and daily traffic counts were reviewed and compared to confirm how travelers access the City. Trip distributions were derived from count comparisons; a summary of assignment routes with a percentage assumption of approaching and departing distributions include:

- SR 902 east of City limits, 65%
- San Salvador Street/Espanola Rd west of City limits, 15%
- SR 902/Lefevre Street south of City limits, 10%
- Lake Street east of City limits, 5%
- Brooks Road north of City limits, 5%

The trips of each aggregate area were assigned to/from these routes based on travel distance, meaning the shortest route

between the area and the commute route. This process was used to assign trips for year 2050 and the full build condition for the typical weekday. The only diversion from the distributions above where for school trips, assuming a higher number of trips traveling directly to/from the City versus travel easterly along SR 902 with the full build condition.

Travel Forecasts

Forecasts reflect the combination of land use trip assignments with baseline traffic. Baseline growth includes traffic increases resulting from influences outside of the City, yet commuting through or accessing areas in Medical Lake. An increase of commuters traveling from origins outside the City to Eastern State hospital is an example of how baseline growth occurs.

Historical traffic counts were reviewed for four locations along SR 902, and three locations along Lefevre Street. These counts, available from WSDOT, were reviewed from 2012 and 2024. A linear regression analysis indicates traffic increasing at a rate of 1.0 to 1.8% annually in this period, and a weighted average of 1.26% per year between all count locations.

The forecasting objective was to address baseline traffic with understanding that land use trip assignments would comprise most future traffic growth. As such, a 1% baseline growth rate was compounded annually and applied to ADT counts to generate a 28% adjustment by year 2050. This growth was also used for the full-build condition, given the conservative nature of the baseline forecasting process.

The trip assignments developed for year 2050 and the full-build condition were developed based on the distributions noted prior. They were added to baseline forecasts to generate total forecasts. The forecasts process is shown with **Table 4.2** for the weekday. Also shown are elements that comprise forecasts, including counts, baseline growth, and land use trips.

Table 4.2. Year 2050 &Full-Build Traffic Forecasts

Year 2050 Condition				
SR 902 Location	Existing ADT	Baseline Growth	ADT Assignment	Year 2050 Forecasts
East City Limit	8,765	2,475	1,825	13,065
Stanley Street	6,390	1,805	1,445	9,640
Lefevre Street	5,790	1,635	760	8,590
Lake Street	4,630	1,710	695	7,035
Jefferson Street	2,765	780	635	4,180
Full Build Condition				
SR 902 Location	Existing ADT	Baseline Growth	ADT Assignment	Full Build Forecasts
East City Limit	8,765	2,475	6,430	17,670
Stanley Street	6,390	1,805	5,650	13,845
Lefevre Street	5,790	1,635	3,780	11,205
Lake Street	4,630	1,710	3,030	9,370
Jefferson Street	2,765	780	2,755	6,300

A review of year 2050 forecasts shows volumes along SR 902 / Lefevre Street are projected to experience a 50% (+/-) gain over counts, an average of the five locations shown. This is a 1.6 to 1.7% annual growth rate with a 1.64% weighted annual average. The conclusion is that forecast 25-year growth will

exceed 12-year historical figures, 1.26% versus 1.64% annually. This represents an increased annual growth rate for Medical Lake streets, confirming land use gains will have an impact, but not to an unreasonable extent as less than a 0.4% difference is noted between forecast and historical growth.

Full build forecasts are 100% higher than ADT counts, an approximate average of locations. The timeline for growth to materialize is unknown given this is a full development scenario. However, it would require 54 years for growth to be achieved using the historical growth rate of 1.26%, for comparison, and 42-years with 1.64% annual land use growth.

4.2 Forecast Performances

Year 2050 and full-build forecasts were reviewed against the FDOT capacity thresholds disclosed with section 3.3; also, V/C were calculated. Again, the V/C ratio of 0.79 or less indicates practical street capacity is available, 0.80 to 0.99 is noted as "approaching standard," and 1.0 or higher is an indication of surpassing available street capacities.

The City has a LOS D standard for Medical Lake's principal arterial roads and LOS C for arterials and collectors. If the V/C above are below the approaching threshold condition, a LOS A or B equivalent is reached, 0.79 or less. If the V/C of 0.80 to 0.99 is calculated, a LOS C is achieved. Above 1.0 indicates the LOC C standard is not met, precipitating need for improvement. A summary of forecast conditions, capacity thresholds, a V/C calculation, and an LOS determination is provided with **Table 4.3** for the typical weekday.

Table 4.3. Street Capacity Thresholds

Year 2050 Condition				
SR 902 Location	ADT Volume	LOS Threshold	V/C Calculation	Equivalent City LOS
East City Limit	13,065	13,300	0.98	LOS C
Stanley Street	9,640	13,300	0.72	≤ LOS B
Lefevre Street	8,590	13,300	0.65	≤ LOS B
Lake Street	7,035	13,300	0.53	≤ LOS B
Jefferson Street	4,180	13,300	0.31	≤ LOS B
Full Build Condition				
East City Limit	17,670	13,300	1.33	≥ LOS D+
Stanley Street	13,845	13,300	1.04	≥ LOS D
Lefevre Street	11,205	13,300	0.84	LOS C
Lake Street	9,370	13,300	0.70	≤ LOS B
Jefferson Street	6,300	13,300	0.47	≤ LOS B

As shown, a LOS C condition is noted on SR 902 at the east City limits; this is where traffic is highest in Medical Lake. LOS C is allowed for an arterial per City criteria. Though approaching standard, V/C has not yet reached 1.0 and is acceptable per standard convention. All remaining locations are well within allowable standards by year 2050. The data suggests that long-term improvements could be considered for SR 902, though not immediately given vehicle capacity needs alone.

The long-term analysis confirms this supposition. V/C and LOS surpass limits for most of SR 902, with a high LOS, and V/C that

exceed the LOS C threshold to Stanley Street, then a high LOS C grade to Lefevre Street. This confirms the possible need for long-term capacity projects.

Intersection Considerations

Note from forecast conditions that volumes decrease between road segments at intersections (between ADT counts). This occurs because turning vehicles depart and enter routes at intersections. This may suggest need for mobility improvements at major intersections, given they support high turning volumes and/or are a junction between functionally classified roads.

The PM peak hour is the most frequently reviewed period in the region for intersection capacities; travel demands are highest during this time versus other times of the typical weekday. The LOS capacity analysis was performed for four of the highest-volume intersections in the City, SR 902 with Lefevre Street, Stanley Street North, Stanley Street South, and Graham Road.

Turning movement counts were available from the West Plains Subarea Transportation Plan, Phase II (S3R3 & Ardurra, 2025) for Lefevre Street and Graham Road with SR 902. These counts were used for the capacity analysis. Turning movements were not available for the Stanley Street intersections. As such, counts were estimated for the north and south legs of Stanley Street given review of volume changes between the Lefevre and Graham intersections as it relates to residential densities and commercial site locations on SR 902. The result is actual or estimated counts which should be sufficient for helping to confirm the need for potential intersection improvements along SR 902, the busiest road in Medical Lake.

As with roadway volumes, intersection traffic was forecast to year 2050 and a full-build condition based on prior methods; baseline growth applied to counts and peak hour volumes assigned to streets to generate forecast volumes. A summary of the turning movements for these intersections, existing and forecast conditions, is shown with **Exhibit 4.2** (Page 34).

An LOS analysis was performed using Synchro Software Suite (Cubic, 2025); which gauges capacity using the prevailing and accepted methods of the Highway Capacity Manual (TRB, 7th Edition, 2022). An LOS D standard is typical for a City like Medical Lake; this has been used as the threshold for this Transportation Master Plan.

A summary of LOS for study intersections under both forecast Plan conditions is shown with **Table 4.4** (Page 35) with summary results provided for the existing year 2050, and full-build conditions during the PM peak hour.

Exhibit 4.2. Current & Forecast Intersection Turn Movements

Existing Conditions

SR 902 / Lefevre Street / Brooks

				57	108	51				
				IN		OUT				
				17	32	8				
				SBR	SBT	SBL				
150	OUT	19	EBL		TEV =		WBR	5	IN	170
361		142	EBT		653		WBT	80		455
211	IN	50	EBR				WBL	85	OUT	285
				NBL	NBT	NBR				
				53	27	135				
				OUT		IN				
				167	382	215				

SR 902 / Stanley Street N

				32	135	103				
				IN		OUT				
				14		18				
				SBR	SBT	SBL				
170	OUT	46	EBL		TEV =		WBR	57	IN	213
455		239	EBT		530		WBT	156		470
285	IN		EBR				WBL		OUT	257
				NBL	NBT	NBR				
				OUT		IN				
				0	0	0				

SR 902 / Stanley Street S

				0	0	0				
				IN		OUT				
				SBR	SBT	SBL				
213	OUT		EBL		TEV =		WBR		IN	241
470		222	EBT		580		WBT	182		514
257	IN	35	EBR				WBL	59	OUT	273
				NBL	NBT	NBR				
				31		51				
				OUT		IN				
				94	176	82				

SR 902 / Graham Road

				55	184	129				
				IN		OUT				
				19		36				
				SBR	SBT	SBL				
274	OUT	48	EBL		TEV =		WBR	81	IN	336
600		278	EBT		717		WBT	255		650
326	IN		EBR				WBL		OUT	314
				NBL	NBT	NBR				
				OUT		IN				
				0	0	0				

Year 2050 Condition

SR 902 / Lefevre Street / Brooks

				75	141	66				
				IN		OUT				
				20	45	10				
				SBR	SBT	SBL				
215	OUT	26	EBL		TEV =		WBR	5	IN	255
501		190	EBT		926		WBT	115		650
286	IN	70	EBR				WBL	135	OUT	395
				NBL	NBT	NBR				
				80	35	195				
				OUT		IN				
				250	560	310				

SR 902 / Stanley Street N

				65	235	170				
				IN		OUT				
				30		35				
				SBR	SBT	SBL				
255	OUT	75	EBL		TEV =		WBR	95	IN	320
650		320	EBT		780		WBT	225		675
395	IN		EBR				WBL		OUT	355
				NBL	NBT	NBR				
				OUT		IN				
				0	0	0				

SR 902 / Stanley Street S

				0	0	0				
				IN		OUT				
				SBR	SBT	SBL				
320	OUT		EBL		TEV =		WBR		IN	415
675		270	EBT		890		WBT	275		760
355	IN	85	EBR				WBL	140	OUT	345
				NBL	NBT	NBR				
				45		75				
				OUT		IN				
				225	345	120				

SR 902 / Graham Road

				95	300	205				
				IN		OUT				
				30	0	65				
				SBR	SBT	SBL				
435	OUT	70	EBL		TEV =		WBR	135	IN	540
905		400	EBT		1105		WBT	405		1005
470	IN	0	EBR				WBL	0	OUT	465
				NBL	NBT	NBR				
				0	0	0				
				OUT		IN				
				0	0	0				

Full Build Condition

SR 902 / Lefevre Street / Brooks

				90	165	75				
				IN		OUT				
				20	55	15				
				SBR	SBT	SBL				
230	OUT	25	EBL		TEV =		WBR	10	IN	390
540		205	EBT		1195		WBT	130		895
310	IN	80	EBR				WBL	250	OUT	505
				NBL	NBT	NBR				
				80	40	285				
				OUT		IN				
				385	790	405				

SR 902 / Stanley Street N

				100	305	205				
				IN		OUT				
				45		55				
				SBR	SBT	SBL				
390	OUT	65	EBL		TEV =		WBR	140	IN	485
895		440	EBT		1090		WBT	345		980
505	IN		EBR				WBL		OUT	495
				NBL	NBT	NBR				
				OUT		IN				
				0	0	0				

SR 902 / Stanley Street S

				0	0	0				
				IN		OUT				
				SBR	SBT	SBL				
485	OUT		EBL		TEV =		WBR		IN	670
980		380	EBT		1335		WBT	420		1155
495	IN	115	EBR				WBL	250	OUT	485
				NBL	NBT	NBR				
				65		105				
				OUT		IN				
				365	535	170				

SR 902 / Graham Road

				175	480	305				
				IN		OUT				
				65	0	110				
				SBR	SBT	SBL				
695	OUT	105	EBL		TEV =		WBR	200	IN	830
1315		515	EBT		1625		WBT	630		1455
620	IN	0	EBR				WBL	0	OUT	625
				NBL	NBT	NBR				
				0	0	0				
				OUT		IN				
				0	0	0				

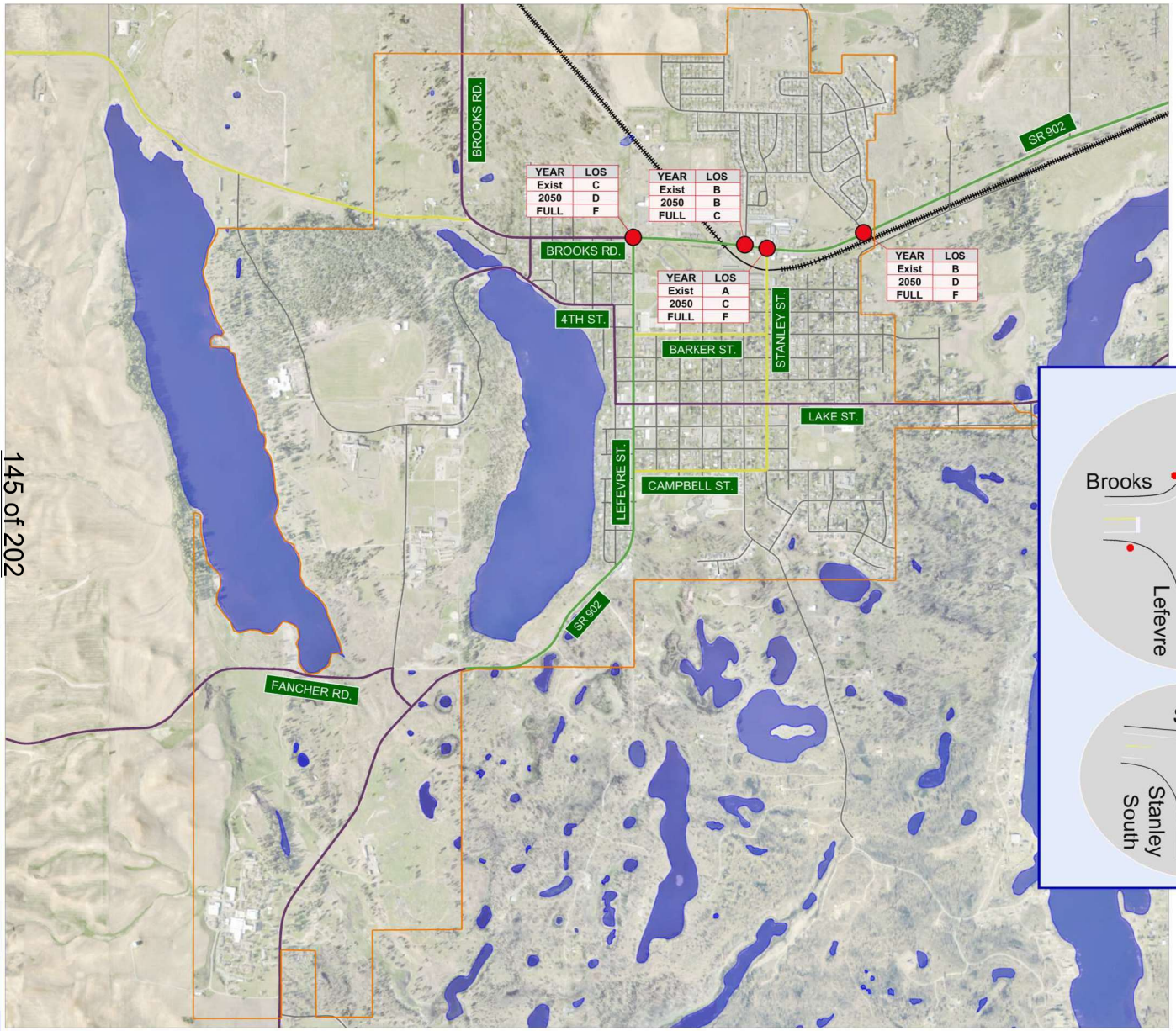
Table 4.4. Intersection Levels-of-Service, PM Peak Hour			
SR 902 Location	LOS	Control Delay	V/C Calculation
Existing Condition			
SR 902 / Lefevre St / Brooks Rd*	C	16.3	0.22
SR 902 / Stanley Street North	B	11.3	0.06
SR 902 / Stanley Street South	A	7.4	0.04
SR 902 / Graham Rd	B	14.3	0.13
Year 2050 Condition			
SR 902 / Lefevre St / Brooks Rd	D	32.4	0.50
SR 902 / Stanley Street North	B	14.1	0.15
SR 902 / Stanley Street South	C	17.6	0.32
SR 902 / Graham Rd	D	27.3	0.39
Full Build Condition			
SR 902 / Lefevre St / Brooks Rd	F	> 150.0	1.05
SR 902 / Stanley Street North	C	20.2	0.32
SR 902 / Stanley Street South	F	113.8	0.99
SR 902 / Graham Rd	F	>150.0	1.46

The intersection LOS analysis compliments the street capacity analysis. No current issues are identified for the Medical Lake intersections of focus as LOS C or better is achieved with lane V/C below 0.79 limits. The year 2050 analysis for the PM peak hour indicates that deficiencies will evolve with growth, but the LOS D standard is still maintained at Plan intersections with V/C within lane targets. The analysis does confirm that issues would evolve over time, between year 2050 and with the full-build of the City. PM peak hour results are forecast at LOS F with high lane V/C for three out of the four study intersections.

Although turn movement counts were not available to assess LOS conditions on Lefevre Street/SR 902 south of Brooks Road, there are no issues expected through the City to Fancher Connection Road. This supposition is supported by two points. First, there are no arterial capacity issues identified with the forecast year 2050 and full-build conditions, LOS B is shown with Table 4.3.

Second, forecast ADT along the corridor falls in the 4,000 to 7,000 ADT range by year 2050, and 6,000 to 9,000 ADT range with full-build. Note, existing counts range between 6,000 and 9,000 ADT for SR 902 between Lefevre Street and the east City limit under existing conditions; these volumes are comparable with forecast conditions for Lefevre Street south of Brooks Road. As there are no intersection LOS failures noted for the SR 902 intersections with Lefevre Street, Stanley Street North, Stanley Street South, and Graham Road under the current condition, there are no LOS issues anticipated for the Lefevre Street intersections compared with forecast conditions given comparable ADT.

For convenient review, summary intersection configurations, controls, and resulting LOS has been provided with **Exhibit 4.3**. Summaries are shown for the existing and future conditions. LOS summary worksheets are attached as Appendix D.



N.T.S.

LEGEND

	PRINCIPAL ARTERIAL
	MINOR ARTERIAL
	MAJOR COLLECTOR
	MINOR COLLECTOR
	LOCAL STREET
	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL
	STUDY INTERSECTION
YEAR LOS Exist B 2050 D FULL F	LOS TEXT BOX

EXISTING INTERSECTION CONFIGURATIONS

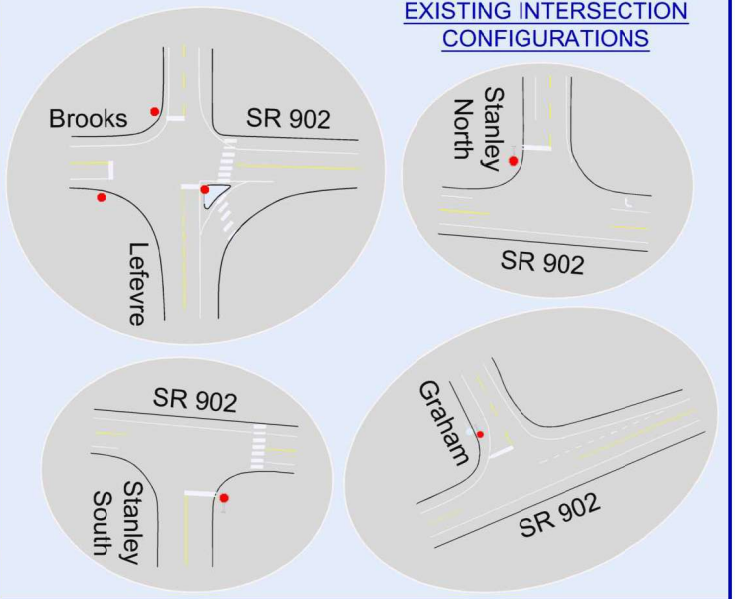


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Exhibit 4.3 — INTERSECTION CONFIGURATION AND LOS RESULTS

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

4.3 Roadway Improvements

Medical Lake benefits from having no evident capacity issues identified from the current or year 2050 conditions. Roadway improvements are suggested only in the long-term to provide capacity for full-build, this is forecast after the year 2050 horizon year. This allows City officials time to plan, secure funding, and deploy improvements. The balance of Section 4.3 recommends projects to address long-term capacity needs for City roadways.

To be clear, this does not relate to safety mitigations and active transportation improvements. Also, as highlighted next, there are City collectors and arterials that do not conform with current Medical Lake design standards.

Roadway Improvements

Summarized are roadway improvements; recommended for deployment as funding opportunities arise organically given no capacity need is urgent. With that said, the importance of pedestrian and bicycle activities may advance the need for multimodal/complete street and safety improvements, regardless of capacity performance results. Discussion on project timing is provided in Chapter 6, the Capital Facilities summary of this Transportation Master Plan.

Roadway Public Works Design Standards

Chapter 11.20 and Chapter 15.20 of Medical Lake Municipal Code (MLMC) provide partial guidance on design standards for City streets. Although both Chapters identify complete street policy, this Plan recommends that the City could benefit from a more extensive Public Works standard. These standards provide a heighted level of detail regarding the design of City collector and arterial roads and intersections, addressing requirements relating to, but not limited to:

- Design reports, studies, and documentation,
- Plan set requirements,
- Signing and striping details,
- Pavement and surfacing design,
- Cul-de-sac, alley, private street, and driveway details,
- Private development and frontage expectations,
- Intersection control and geometric design guidance,
- Landscaped areas that function as buffers to pathways, trails, and sidewalks, with curb and gutter details,
- Planned unit development standards,
- General street lighting, signal, and PHB/RRFB guide, and
- Complete street guidelines.

Complete streets advancement is a directive that comes from City leadership. To that end, although lacking definition on specifics, this Plan offers complete streets and multimodal improvements recognizing that Public Works Standards would follow to provide design details and clarify construction cost estimates beyond what is highlighted in Chapter 6.

SR 902 Complete Street

As indicated, a recommendation of this Plan is for City officials to define new street design standards that include guidance on the advancement of multimodal and/or complete street facilities, in addition to traditional capacity and pavement thickness details, as associated with functional classes. These determinations will influence the recommendations of this Plan particularly from a right-of-way and cost perspective. However, for the sake of Chapter 6.0 TIP recommendations, arterials and collectors were assumed to have widening modifications with active transportation adaptations identified by Chapter 5.

This section recognizes potential capacity improvement may be needed to support vehicle mobility within the City. SR 902 was noted to have a practical capacity impact; conditions that approach standard by year 2050 and exceed standard with full buildout of Medical Lake.

The full-build condition suggests a four or five lane roadway may be needed to address long-range capacity concerns. This Transportation Master Plan does not advocate this level of lane widening. Travel demand forecasts are conservative, meaning higher end. Also, the timing of such need was noted as indefinite, meaning the timeline for forecasts in excess of 18,000 ADT is unknown and are not likely to occur for nearly 50-years, if at all. As such, the strategy of this Plan is to recommend that right-of-way and setbacks be preserved with development, as possible, for the possibility of a four or five lane road. In the interim, more sensible improvements are suggested, with the intersection control improvements noted subsequently, to promote acceptable capacity levels that address need indefinitely.

To that end, expansion of SR 902 includes a center, two-way left-turn lane recommended from Lefevre Street to Graham Road. Per Table 3.4, this will elevate the capacity limit of the street to 15,300 ADT; given increased capacity provided for vehicles turning to/from the Highway. This will promote capacity through the year 2050, given a threshold of 15,300 ADT, plus provides room for 40% of full-build volumes following year 2050 (2,200 additional ADT, after year 2050 with the forecast of 13,065 ADT.

Recommendation (Long-Term): Add a center, two-way left-turn lane along SR 902 extending from Lefevre Street to the east City limit.

Functionally Classified Streets

Although developed to the prevailing standard of the time, most Medical Lake arterials and collectors were improved with only partial multimodal accommodation. Principally, this included features like sidewalk along a single side of a street or a paved road with wide shoulders; most roadways lack gutter and curb sections except along a few sections with sidewalk. Also, it appears that most developed sidewalks were not buffered or offset from existing curb, as typical with the prevailing complete street guidelines applied.

As indicated, a recommendation of this Plan is for City officials to define new street design standards that include guidance on the advancement of multimodal facilities and complete streets. As it pertains to capacity details, road mobility can be improved with definition of curb and gutter sections, along with the improvement of pavement to a depth standard.

The active mobility element is discussed in Chapter 5. This section recommends the City develop an approach to improving arterials and collectors throughout town, focusing on providing curb and gutter with improved pavement sections, as warranted. The priority of these improvements is as follows:

- SR 902, Lefevre Street to east City limits; improvements were better described prior.
- Lefevre Street, Hancock Street to Jefferson Street (match current TIB project)
- Lake Street, Sherman Street to Freeman Drive
- Jefferson Street, W 4th Street to Lake Street
- W. 4th Street, North Trail Head to Jefferson Street
- Howard Street, Brooks Road to W. 4th Street
- Brooks Road, San Salvador Street to Lefevre Street
- Stanley Street, Percival Street to Campbell Street
- Barker Street sidewalk (South side), Lefevre Street to Stanley Street
- Campbell Street, Lefevre Street to Stanley Street

Recommendation (Long-Term): Deploy complete street improvements to bring roadways to standards developed by City officials; focusing on arterials followed by major and then minor collectors.

SR 902 Intersections

The forecast conditions analysis indicates LOS D conditions for the SR 902/Lefevre Street/Brooks Street and SR 902/Graham Road intersections by year 2050 and LOS F under the full build condition. In addition, the SR 902/Stanely Street intersection is also forecast to degrade to LOS F under the full-build condition. The conclusion from the analysis is that intersection control improvements should be considered for deployment in the future; this will improve the capacity/function of intersections, and for SR 902 overall.

There are three principal approaches to increasing capacity at intersections: geometric improvements (adding turn lanes), signalization, and the deployment of a roundabout. Of these approaches, the roundabout provides the highest degree of strategic benefit to the City and WSDOT.

A roundabout improvement provides capacity comparable to a signal, yet minimal delay is experienced as traffic moves without interruption. As indicated in Section 3.5, two of these intersections have high collision rates. A roundabout offers the best safety benefit of the three improvement options. Lastly, the roundabout provides the best integration with complete streets and (arguably) provides the best protection bicycle and pedestrian movements/crossings.

The shorter-term improvements noted with Section 3.5 are still recommended; these are low-cost measures to help preserve safety until roundabouts can be developed. Roundabouts are ultimately recommended for the SR 902 intersection with Lefevre Street, Stanley Street South, and Graham Road. The design of roundabouts would accommodate the three-lane, complete street section recommended prior. However, they would also be designed so they could be constructed without street improvements, if/when warranted.

These would be single-lane roundabouts provided with splitter islands on the north-south legs of the intersection, and with elongated splitters or minor chicanes on the east-west legs. All legs to the intersection would be designed with crossings, islands would be designed with refuges. If the City were to select bike-lanes for application along SR 902, as a complete street, then transitions to/from the roadway to the pedestrian crossings could be developed. Pathways would simply tie into crossings, if selected as the element of the complete street.

Recommendation (Long-Term): Deploy a single-lane, multimodal roundabout at the intersections of SR 902 and Lefevre Street, Stanley Street South, and Graham Road.

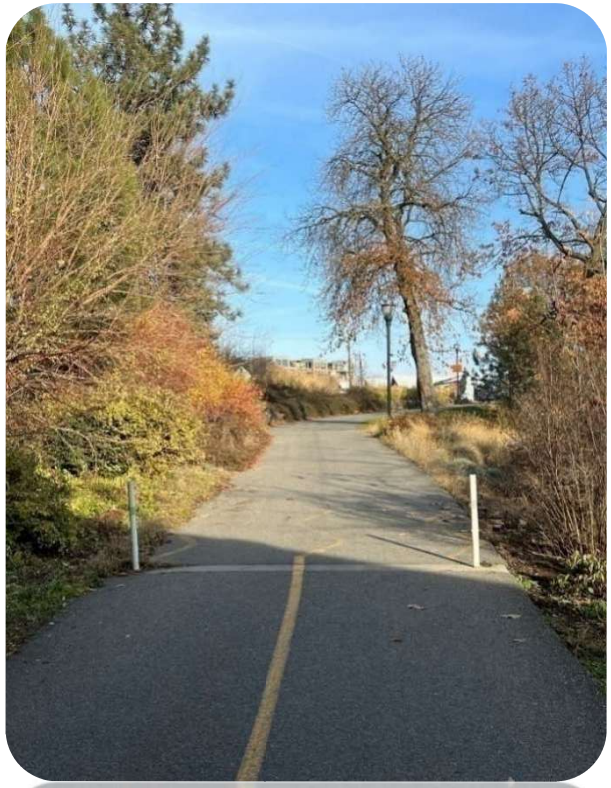
Lake Street / Stanley Street

As indicated, short-term improvements are recommended in Section 3.5 to help preserve safety at this highest incident intersection within the City. Although capacity has not been quantified, and it is unlikely that LOS is an issue at the junction, this is also a good roundabout candidate given the safety and complete street integration reasons mentioned earlier. This would negate sight-distance issues, given right-turns only occur at these junctions, and provide a traffic calming effect for the community.

Recommendation (Long-Term): Deploy a single-lane, multimodal roundabout at intersection of Lake Street and Stanley Street.

CHAPTER 5

MULTIMODAL DISCUSSION



Chapter 5

This section summarizes the multimodal review. Presented are a discussion of bike, pedestrian, and transit conditions within the City with recommendations for improvement.

5.1 Active Transportation

The goals and policies presented with Section 2 strongly focus on improving active mobility and transit networks via application of bike lanes, shared use paths, trails, sepcrated sidewalks, and transit connections. Multimodal solutions offer a cost-effective option to single-occupancy vehicle use. They are key to helping cities like Medical Lake promote small-town values, improve health, and improve livability.

Sidewalk

Research provided with *Economic and Health Benefits of Walking, Hiking, and Bicycling on Recreational Trails in Washington* (Washington Recreation and Conservation, 2019) found the presence of sidewalk is the chief factor in determining a person's willingness to walk. There is a lack of continuity regarding sidewalk along arterials and collectors. This can be detrimental to ocfive mobility in the City. The lack of sidewalk is a theme in the older, developed areas of the County overall, and not just Medical Lake. Past agency standards did not consistently require sidewalks, so they were not provided on many streets, historically.

The *Pedestrian Safety Guide and Countermeasure Selection* guide of the Federal Highway Administration (FHWA) shows the types of sidewalks needed in varied transportation and land use settings. Guidance is shown with **Table 5.1** below.

Roadway Classification and Land Use	Sidewalk/Walkway
Rural Highways (< 400 ADT)	Shoulders preferred, with minimum of 0.9 m (3 ft).
Rural Highways (400 to 2,000 ADT)	1.5-m (5-ft) shoulders preferred, minimum of 1.2 m (4 ft) required.
Rural/Suburban Highway (ADT > 2,000 and less than 1 dwelling unit (d.u.) / .4 hectares (ha) [1 d.u. / acre])	Sidewalks or side paths preferred. Minimum of 1.8-m (6-ft) shoulders required.
Suburban Highway (1 to 4 d.u. / .4 ha [1 to 4 d.u. / acre])	Sidewalks on both sides required.
Major Arterial (residential)	Sidewalks on both sides required.
Urban Collector and Minor Arterial (residential)	Sidewalks on both sides required.
Urban Local Street (residential – less than 1 d.u. / .4 ha [1 d.u. / acre])	Sidewalks on both sides preferred. Minimum of 1.5-m (5-ft) shoulders required.
Urban Local Street (residential – 1 to 4 d.u. / .4 ha [1 to 4 d.u. / acre])	Both sides preferred.
Local Street (residential – more than 4 d.u. / .4 ha [4 d.u. / acre])	Sidewalks on both sides required.
All Commerical Urban Streets	Sidewalks on both sides required.
All Streets in Industrial Areas	Sidewalks on both sides preferred. Minimum of 1.5-m (5-ft) shoulders required.

Table 5.1. FHWA Sidewalk Needs by Roadway Type

Any arterial or collector is recommended by the FHWA as needing sidewalks along both sides of urban and suburban streets in Medical Lake. Share-use paths or separated sidewalk are recommended on roads with greater than 2,000 ADT, sidewalks or wide shoulders are supportable on roads with less than 2,000 ADT.

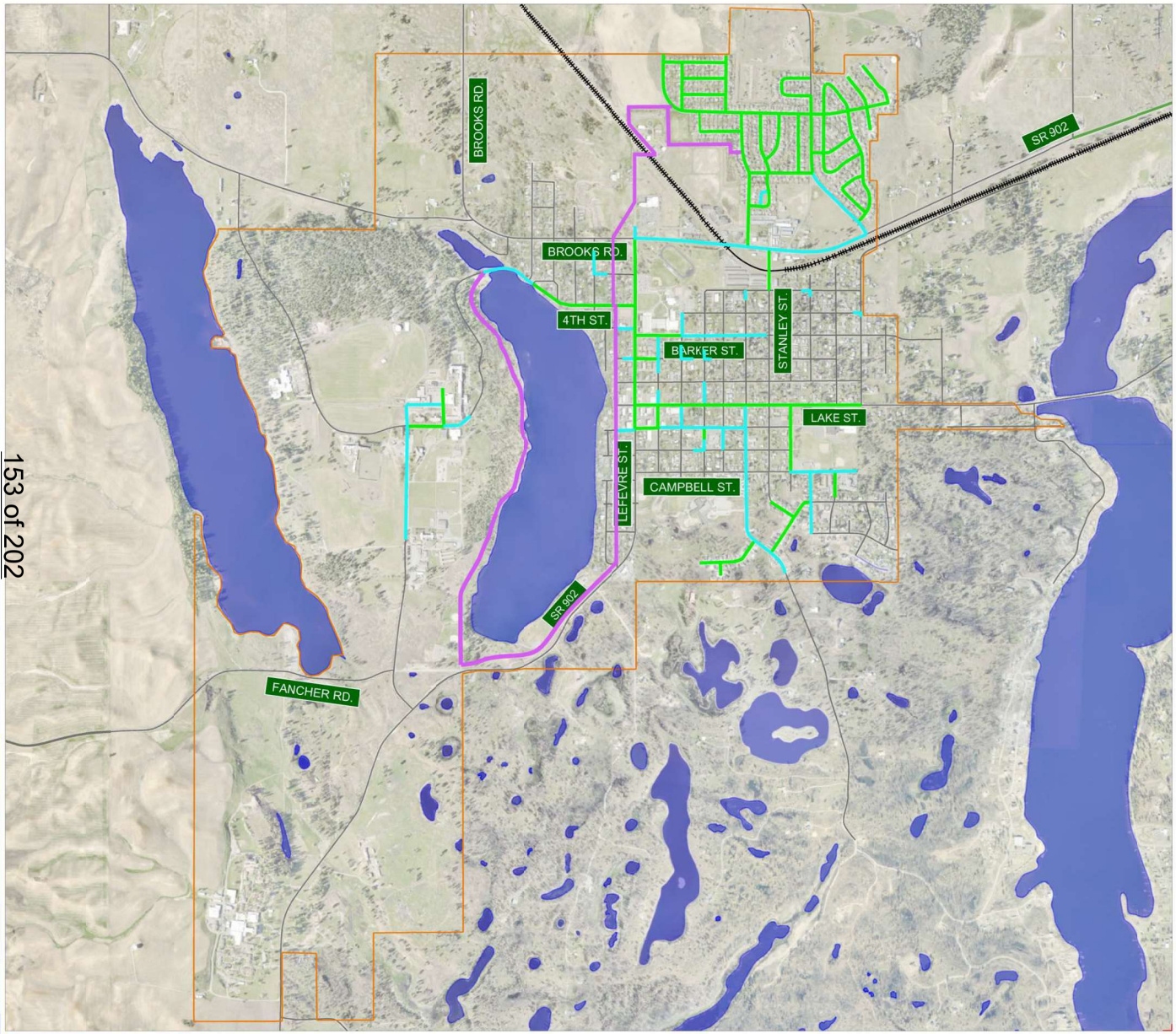
Exhibit 5.1 shows existing sidewalk sections within Medical Lake. As shown, sidewalk is aligned along one or both sides of streets within more newly developed areas, and in districts City officials have made a priority for pedestrian circulation. Older street segments tend to lack sidewalk, the function of historical design standards from a time when sidewalk was not a priority along low volume roads.

This Transportation Master Plan confirms the need to extend sidewalks or paths along city streets. Planning,

design, and construction should be prioritized for classified streets (arterials and collectors), higher volume local streets, and local streets that provide pedestrian and bike connections to City services like schools, retail, businesses, etc. Also, streets that support travel between functionally classified roads.

The decision between sidewalk or pathways should consider whether the route would also serve cyclists, precipitating the need for a shared use path on at least one side of the road. With this premise, a summary of the streets that should be considered a priority for sidewalks are noted below. This should be reviewed in coordination with the pathway versus bike lane discussion shown with the following section.

- Arterials
  - Lefevre Street (SR 902),
    - Sidewalk Infill Both Sides, SR 902 to Jefferson St
- Collectors
  - Brooks Road
    - Sidewalk North Side, San Salvador to Lefevre
  - Howard Street
    - Sidewalk both sides, Brooks to 4th Street
  - Jefferson Street
    - Sidewalk infill both Sides, 4th St to Lake
  - Stanley Street South
    - Sidewalk both Sides, Percival to Campbell
  - San Salvador Street
    - No Sidewalk Recommended, Rural Section
  - Barker Street
    - Sidewalk both Sides, Washington to Stanley
  - Lake Street
    - Sidewalk Both Sides, Sherman to Freeman
  - Campbell Street.
    - Sidewalk both sides, Lefevre to Stanley
- Priority Locals and Future Collectors
  - Jefferson Street
    - Sidewalk both sides, Brooks to Lefevre



N.T.S.

LEGEND

	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL
	SIDEWALK BOTH SIDES
	SIDEWALK ONE SIDE
	SHARED USE PATHWAY

Exhibit 5.1

EXISTING SIDEWALK FACILITIES

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

- Barker Street
  - Sidewalk south side, Washington to Stanley
  - Sidewalk both sides, Stanley to Sherman
- Sherman Street/Henderson Street
  - Sidewalk both sides, Lake to SR 902
- Graham Road
  - Sidewalk west side, Kathy Lee to SR 902

Pathways and Bikeways

Exhibit 5.2 shows the dedicated bicycle network of Medical Lake. The bike network is comprised of shared use pathways, dedicated bike lanes, and routes where shared interaction of bicycles and vehicles has been assigned.

The success of a pathway system is typically in the number of people observed using the pathways, tails, and bike lanes on a regular basis, and in all seasons. The reasons for this are not only that it links neighborhoods to destinations, but also pathways and bike lanes protect pedestrians and bicycles from moving vehicles.

Research from FHWA confirms that separated paths, either standalone or alongside major roads, are what encourage bicycle activity. **Exhibit 5.3** shows bicyclists affirm a 51 to 56% comfort factor with a shared use path, trail, or side path. The level of comfort of cyclists reduces with proximity to vehicles; buffered bike lanes and typical on-street bike lanes result in a 5 to 9% comfort level. Shared vehicle lanes and shoulder cycling precipitate a 4% to 7% comfort level.

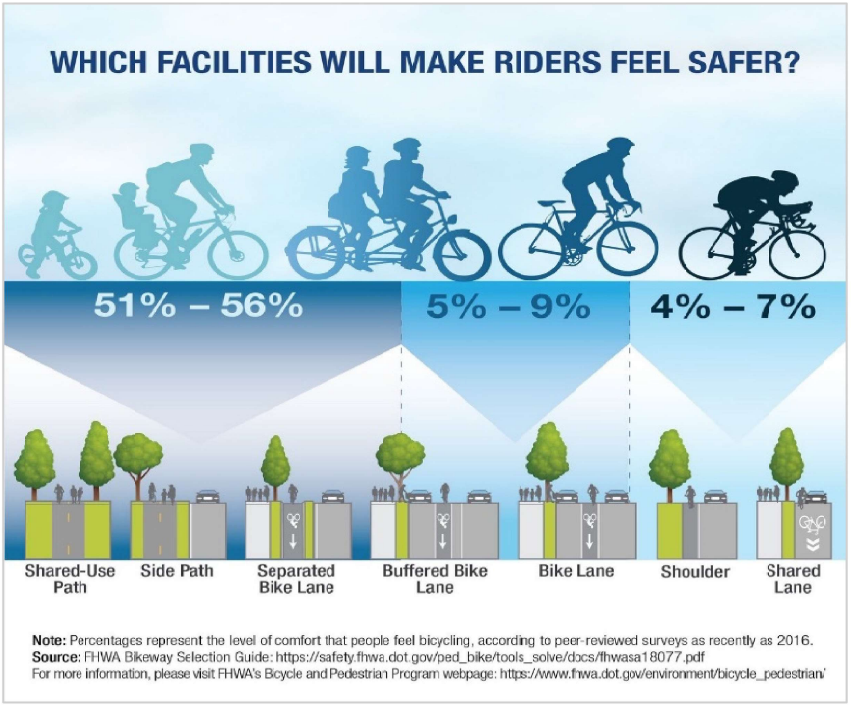
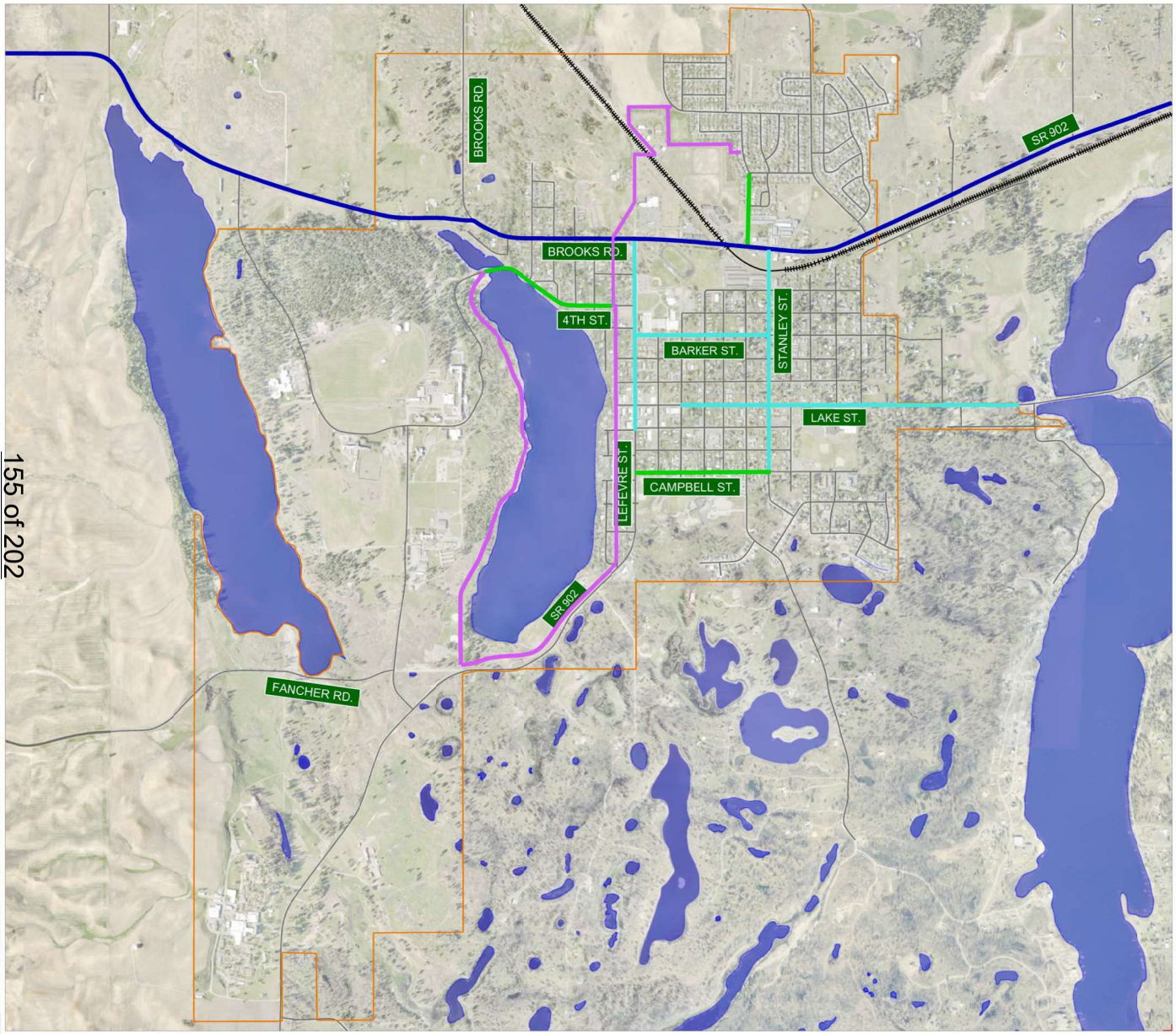


Exhibit 5.2. FHWA Safe Facilities Results

The conclusion is that, while providing bike lanes or shared lanes does encourage some use, the separation of cyclists from traffic using buffered or separated bicycle lanes or pathways is what will optimally encourage bicycling within the community.



N.T.S.

LEGEND

	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL
	SHARED ROADWAY
	BIKE LANES
	BIKE LANE, ONE SIDE
	SHARED USE PATHWAY

Exhibit 5.3

EXISTING BICYCLE FACILITIES

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

For this reason, the active element of this Transportation Plan recommends buffered bike lanes or off-street shared-use pathways, trails, and side paths along major routes to link people to their destinations. Buffered bike lanes refer to the use of street parking to separate bikes from moving vehicles. The Bikeway Selection Guide (FHWA, 2019) offers direction on the selection of bicycle facilities when considering volume and speed conditions. **Exhibit 5.4** (next page) for Medical Lake streets. A street with a posted speed limit of 35 mph and higher and/or with traffic volumes of 7,000 or higher should be planned as a separated facility. Per this guidance, SR 902 should be developed with a shared use path, side path, or separated bike lane to address the needs of cyclists.

Bike lanes in streets are supported with speed limits between 25 and 35 mph, and with traffic volumes between 3,000 and 7,000 vehicles per day. However, given the comfort level of cyclists with on-street facilities, attempts should be made to separate or buffer these facilities, as much as possible.

Below thresholds of 3,000 trips per day, a street is a candidate for a shared lane per the matrix below. However, a shared lane is not an optimal solution per the cyclist comfort level discussions provided prior. For streets with reduced volumes, in-street bike lanes would be a more optimal solution compared with in-lane sharing.

Several sidewalk routes noted prior could be enhanced for bicycle improvements, new or revised facilities provided with or in-lieu of sidewalk.

A summary of bicycle improvement considerations is below. These would be provided as a part of complete street improvements highlighted subsequently.

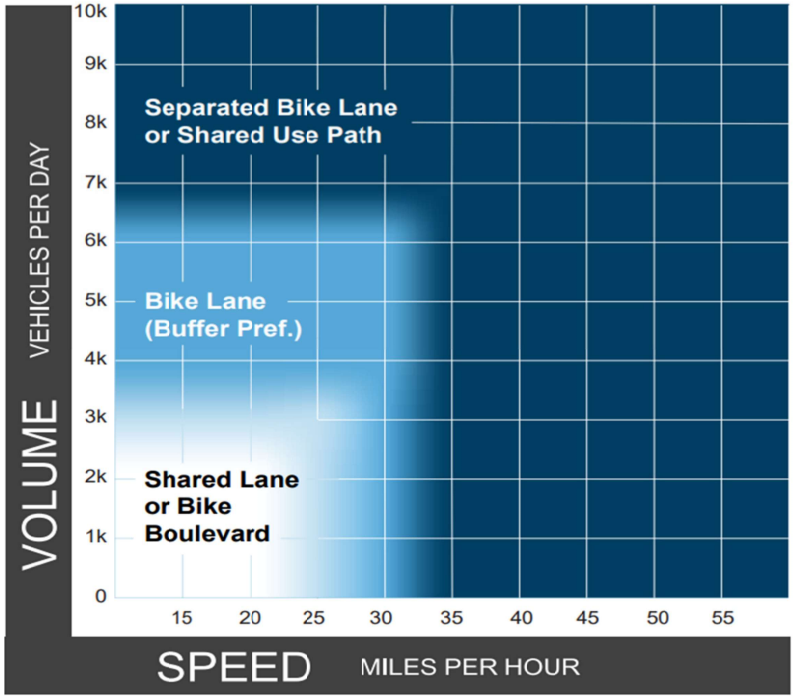


Exhibit 5.4. FHWA Facility Selection Matrix

- Arterials
  - Lefevre Street (SR 902)
    - Bike lanes, Hancock to Jefferson.
  - SR 902
    - Shared-use path south side, Lefevre to Graham.

- Collectors
  - Brooks Road
    - Pathway south side, San Salvador to Lefevre
  - Howard Street
    - Bike lanes, Brooks to 4th Street
  - Jefferson Street
    - Bike lanes (both sides), 4th St to Lake
  - 4th Street,
    - Pathway south side, North Trailhead to Jefferson
  - Barker Street
    - Bike lanes, Stanley to Sherman
  - Lake Street
    - Bike lanes, Sherman to Freeman
  - Campbell Street
    - Bike lanes, Lefevre to Stanley
- Priority Locals and Future Collectors
  - Jefferson Street
    - Bike lanes both sides, Brooks to Lefevre
  - 4th Street
    - Pathway south side, North Trail Head to Jefferson
  - Barker Street
    - Path or Bike Lanes, Stanley to Sherman
  - Sherman Street/Henderson Street
    - Bike lanes or pathway, Lake to SR 902
  - Stanley Street North
    - Bike lanes, Tara Lee to SR 902
  - Graham Road
    - Bike lanes or Path, City Limit to SR 902

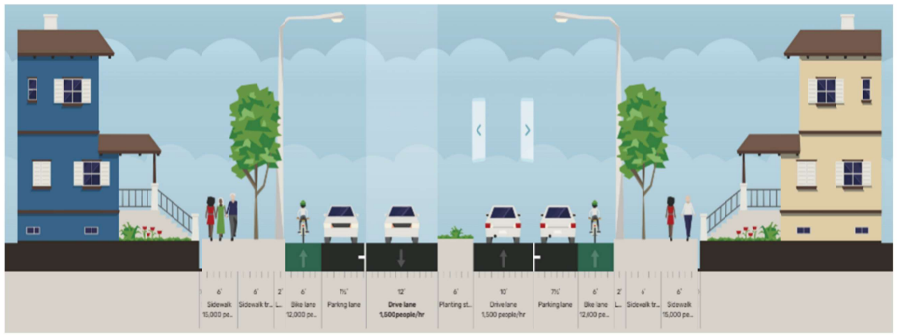


Exhibit 5.5. Sample Complete Street Cross Section w/Parking Lanes as Buffers from Bike Lanes

As indicated, streets in core residential areas, pathways and bike lanes are recommended to include buffered areas to protect pedestrians and cyclists. This includes landscaped area projection for sidewalk and pathways, or a parking lane aligned between the bike and vehicle through lanes. From a practical standpoint, the recommendation is a complete street like what the City leaders completed with TIB for Lefevre Street. This recommendation is reinforced in capacity discussions. **Exhibit 5.5** provides an example of a complete street section for highlighted roadways in Medical Lake.

Crossings

There are several crossings throughout the City; the emphasis of this section is on highlighting any improvements that may be needed for junctions between two classified roadways, or a classified roadway with a major local street. Lastly, primary routes to/from Medical Lake schools were examined to determine whether crossing improvements may promote student safety at key intersections.

Potential crossing treatments were reviewed in coordination with *A Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations* (FHWA, 2018). This provides guidance on treatment options given variables of speed and daily vehicle volume data. The guidance is shown with **Exhibit 5.6** (right).

To be clear, this is a guide, and this Transportation Master Plan follows FHWA advisements for most intersections. However, there were key locations where enhanced treatments were recommended. As justification, the FWHA guide was based largely on analysis of larger metropolitan areas; areas where drivers and pedestrians are accustomed to wider streets with higher travel demands. The citizens from Medical Lake will have different perceptions of roadway geometry and traffic volumes; criteria should be tempered situationally to be of relevance to this community. This is true especially of the higher volume roads, SR 902 and Lefevre Street.

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	❶ 2 4 5 6	❶ 5 6 7 9	① 5 6 ❼ ❾	❶ 4 5 6	❶ 5 6 7 9	① 5 6 ❼ ❾	❶ 4 5 6 7 9	① 5 6 7 9	① 5 6 ❾
3 lanes with raised median (1 lane in each direction)	❶ 2 3 4 5	❶ ❸ 5 7 9	① ❸ 5 ❼ ❾	① 3 4 5 7 9	① ❸ 5 ❼ ❾	① ❸ 5 ❼ ❾	① ❸ 4 5 7 9	① ❸ 5 ❼ ❾	① ❸ 5 ❾
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	❶ 2 3 4 5 6 7 9	❶ ❸ 5 6 7 9	① ❸ 5 6 ❾	① 3 4 5 6 7 9	① ❸ 5 6 ❼ ❾	① ❸ 5 6 ❾	① ❸ 4 5 6 7 9	① ❸ 5 6 ❾	① ❸ 5 6 ❾
4+ lanes with raised median (2 or more lanes in each direction)	❶ ❸ 5 7 8 9	❶ ❸ 5 7 8 9	① ❸ 5 8 ❾	① ❸ 5 7 8 9	① ❸ 5 ❼ 8 ❾	① ❸ 5 8 ❾	① ❸ 5 ❼ 8 ❾	① ❸ 5 8 ❾	① ❸ 5 8 ❾
4+ lanes w/o raised median (2 or more lanes in each direction)	❶ ❸ 5 6 7 8 9	① ❸ 5 ❻ 7 8 9	① ❸ 5 ❻ 8 ❾	① ❸ 5 ❻ 7 8 9	① ❸ 5 ❻ ❼ 8 ❾	① ❸ 5 ❻ 8 ❾	① ❸ 5 ❻ ❼ 8 ❾	① ❸ 5 ❻ 8 ❾	① ❸ 5 ❻ 8 ❾

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- ● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- ○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
2 Raised crosswalk
3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
4 In-Street Pedestrian Crossing sign
5 Curb extension
6 Pedestrian refuge island
7 Rectangular Rapid-Flashing Beacon (RRFB)**
8 Road Diet
9 Pedestrian Hybrid Beacon (PHB)**

Exhibit 5.6. FHWA Crossing Treatment Matrix

Based on the preamble, a summary of the recommended treatments for key intersections is summarized as follows:

Install or update with high visibility markings, install lighting, and provide advanced signs:

- Brooks Road / San Salvador Street
- Barker Street / Lefevre Street

- Howard Street / Brooks Road
- Howard Street / 4th Street
- Jefferson Street / 4th Street
- Lefevre Street / 4th Street
- Lefevre Street / Barker Street
- Stanley Street / Barker Street
- Sherman Street / Barker Street
- Jefferson Street / Lake Street
- Lefevre Street / Lake Street
- Sherman Street / Lake Street
- Lefevre Street / Campbell Street
- Stanley Street / Campbell Street

Install or update with high visibility markings, install lighting, provide advanced signs, and install pedestrian-actuated rapid rectangular flashing beacon (RRFB):

- Lefevre Street / Brooks Road / SR 902
- Stanley Street South / SR 902
- Stanley Street South / Lake Street

The last three intersections noted above are also candidates for intersection improvements, as described with the future condition's discussion. The installation of RRFBs would occur as an interim improvement until the City determines elevated intersection improvements are required.

5.2 City Transit

Spokane Transit Authority (STA) operates the Medical Lake public bus system. Route 62 "Medical Lake" operates on an hourly rotation during weekdays between 5:30 AM and 11:30 PM. The route also operates hourly from 6:00 AM and 11:00 PM on Saturdays, and hourly on Sundays between 7:00 AM and 8:30 PM.

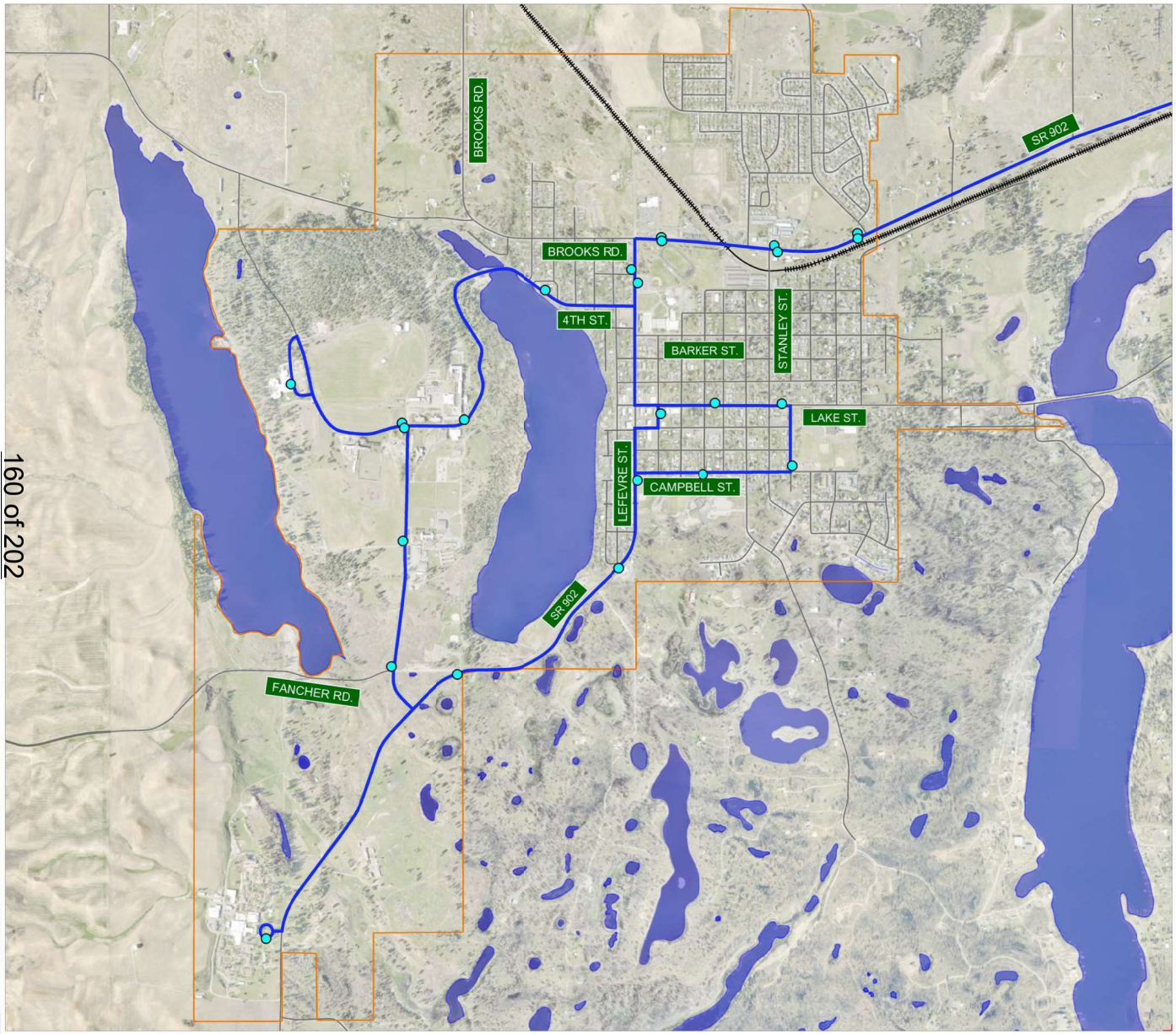
The Annual Route and Passenger Facilities Performance Report - 2024 Data (STA, 2024)* provides metrics regarding use of STA in Medical Lake. Key metrics are as follows:

Route 62: Medical Lake

- Annual Ridership – 47,062 passengers
- Average Weekday Ridership – 147.2 passengers
- Peak Boardings - 3 PM, 19 passengers
- Peak Location, Medical Lake Center (54 in/out)

STA provides paratransit service comparable to fixed-route service. Origins and destinations must be in a three-quarter mile radius of a fixed route. This means many areas of the City are served by paratransit.

The route operates between Medical Lake and the West Plains Transit Center, where connections to Airway Heights, Cheney, Spokane, and other areas of Spokane County can be achieved. A route map is shown with **Exhibit 5.7**, highlighting notable stops.



N.T.S.

LEGEND

	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL
	STA ROUTE 62 STOP
	STA ROUTE 62

Exhibit 5.7

STA BUS SERVICE AND STOPS

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

RECOMMENDATIONS

STA services are provided in response to ridership demands, as determined by leadership. City of Medical Lake leaders can make route addition or change requests of the agency, but the decision is up to STA.

With that said, in line with multimodal goals of Medical Lake, City leaders can encourage STA ridership. The provision of facilities that help augment the access and convenience of public bus stops is a large factor. For instance, the extension of sidewalk, paths, and bike lanes is a key strategy. Additional ideas include, but are not limited to, the following actions:

- Amenities such as bike racks and shelters,
- Improving the lighting around the facilities,
- Improving the visibility of transit stops,
- Adding security cameras/surveillance systems,
- Education and promotion (benefits of transit),
- Preferred vehicle parking at stops, and
- Discounted passed or service subsidies.

Many solutions above require capital investment by the City to affect multimodal changes. For that reason, they are identified as long-term solutions with the proposed City TIP presented with Chapter 6.0.

Transportation Orientated Development

Transit-oriented developments (TODs) are a transportation demand management strategy that could be considered by City leaders for Medical Lake. A TOD is a land use area, supported by policy, which maximizes the use of property in suburban or urban environment to promote walking, biking, and transit activities. Employment, recreation, and residential land uses are promoted in a focused area, which also has clear/direct access to Spokane Transit. A TOD reduces reliance on single occupancy vehicles, promoting healthy lifestyles, as active mobility can occur between land uses. Also, transit ridership increases as occupants can more easily access buses with commutes to/from the region.

STA leaders are working to initiate the first TOD developments along key corridors, like Division Street and Sprague Avenue within Spokane and Spokane Valley, respectively. However, there is opportunity to advance to a TOD center in Medical Lake. This has strong synergies with the multimodal vision of City leaders and offers many benefits for the community.

The benefits of a TOD center for the City of Medical Lake:

- Mobility and Access.
  - A range of travel choices are promoted beyond personal vehicles, including transit, walking, biking, and often micro-mobility.
  - Service, employment, and residential centers are within convenient/near walking, biking, and transit proximities, diminishing reliance on personal autos.
  - To that end, a TOD can reduce/eliminate need for an automobile.

- The TOD can reduce travel demand, as measured in diminished vehicle miles of travel (VMT).

- Land Use and Economics.
  - Private development can be stimulated, helping to promote works centers and access to service and retail services.
  - Apartments and townhomes are normally a key feature of a TOD, providing diverse and affordable housing options.
  - Costs for auto fuel and maintenance are eased, allowing citizens economic benefit.
  - Reduces road preservation costs for agencies due to reduction of vehicle friction.

- Sociability and Quality of Life.
  - Walking, biking, and micro-mobility are important accessibility features of a TOD, promoting health.
  - Harmful vehicle emissions are reduced, improving and reducing environmental impact.
  - Social interactions are improved on transit and within service and retail hubs of TOD's.
  - Aesthetics like street art, landscaping, decorative lights, and parks are often developed within TOD's, augmenting appeal and a sense of community.
  - Historical or cultural centers can be a focal point of the TOD, enhancing community pride.
  - Enhancing pride in one's community can increase cooperation and stewardship.

The TOD should be considered as a multimodal strategy for Medical Lake. As noted, this travel demand management strategy will help promote land use, economic, and quality of life benefits, as well as positive mobility and environmental outcomes.

Given STA Route 62 covers many areas within Medical Lake, there are several options the City can consider for a TOD. The downtown area and Harvest Food areas are two examples of deployment areas, though more examples do exist.

5.3 Medical Lake School District

Medical Lake school district has two elementary schools, a middle school, and a high school that services a geographic area extending from just north of U.S. Highway 2 to the north, I-90 to the south, Pine Street and Maple Street to the west, and Craig Road to the east. The District serves the City, areas of Spokane County, and Fairchild Air Force Base.

The District provides bus services to students located outside of an approximate mile circumference of the schools. There are three schools located in City limits, an elementary school located in and servicing Fairchild. **Exhibit 5.8** (next page) shows the limits of the school district.

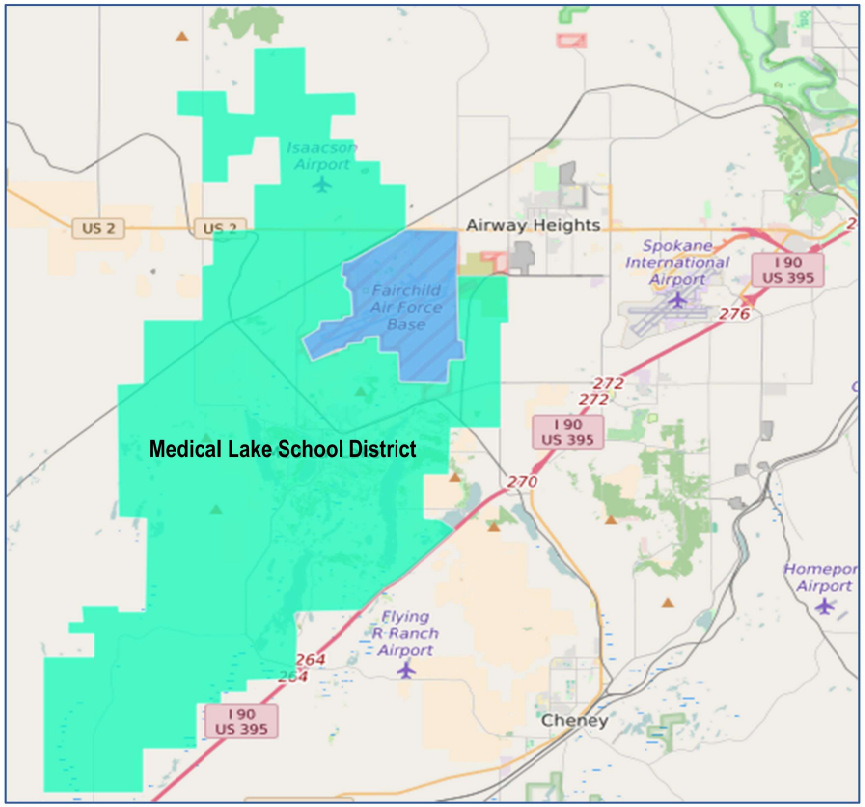


Exhibit 5.8. Medical Lake School District (Green)
(Source: Zipdatamaps.com)

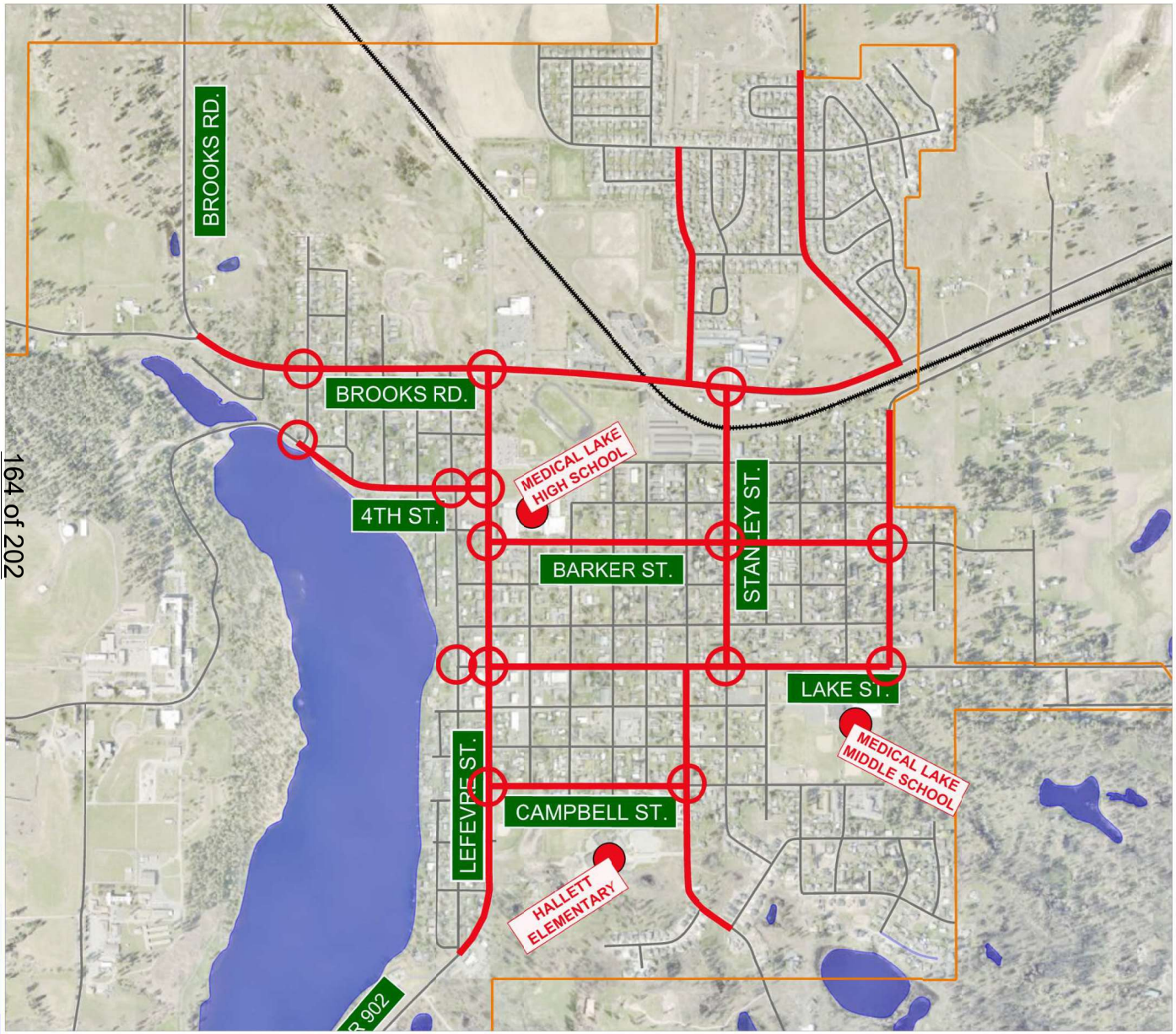
Lighting and visibility improvements may be considered for areas that may support the recurrent pickup and drop of students. However, many areas are outside of City control given they are in Spokane County or Fairchild Air Force Base authority. The City can coordinate with MLSD leadership and affected agencies for changes, strategies, or improvements outside of Medical Lake.

However, as indicated prior, there are students that walk to school within Medical Lake. There is a lack of sidewalk and bicycle accommodation along many routes for walking and bicycling students.

A Safe Routes to Schools analysis was provided to help confirm routes, many of them noted prior, for priority implementation of active mobility and safety improvements. The criteria for these routes were:

- The route has application for serving a large residential area of Medical Lake.
- The route provides duplication in supporting active movements for all citizens in Medical Lake (broader investment implications).
- The route captures students for up to an approaching mile of schools, this captures most routes in the City.

The results of this review are shown with **Exhibit 5.9**. This map shows roadways and intersections of emphasis for the safe mobility of students between schools and neighborhoods. There is much duplicity in this and prior multimodal analyses, this affirms the investments can be made to serve complete purposes for the community.



N.T.S.

LEGEND

	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL
	SCHOOL LOCATION
	SAFE SCHOOLS ROUTE
	SAFE SCHOOLS CROSSING

Exhibit 5.9

SAFE ROUTE ROADS AND INTERSECTIONS

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

CHAPTER 6

TRANSPORTATION IMPROVEMENT PROGRAM

Chapter 6

Chapter 6 summarizes the improvements recommended for the Transportation Master Plan. Short-term strategies and projects would be included in the 6-Year City Transportation Improvement Program (TIP). Long-Term projects would be those moved into the TIP for implementation over time. All of these projects could be included in the Capital Improvement Element of the Medical Lake Comprehensive Plan, which is currently being updated.

6. 1 TIP Cost Estimates

Planning level construction costs were developed to support the development of the TIP. Costs are provided to help City officials plan for, secure, and allocate capital for right-of-way acquisition, design, and construction. Unit pricing was based on the recent bid estimates of projects in the region; the City of Spokane and the City of Airway Heights were primary examples used in material costs. The bid forms from agencies are typically downloadable from websites, or as available from past project work.

Materials include the cost of construction. Markups were applied to material costs for Washington taxes (9%); traffic control (3%); mobilization (7%); survey, design, permitting, bid documents, and administration (15%); construction survey and construction engineering (16%). This calculates to a 50% total markup on material/construction costs.

Short Term: Lake Street / Stanley Street

Option 1. Cross traffic (MUTCD W2-1) and street name (W16-8P) signs on Lake Street in advance of Stanley Street, two breakaway signs with poles and bases.

Material & Construction	$1,800
Project Markups	$900
Option 1. Project Estimate	**$2,700**

Option 2. Stop signs (MUTCD R1-1) to convert to an all-way stop. Advanced "stop ahead" signs (MUTCD W3-1) used to notify approaching drivers of the all-way stop.

Material & Construction	$3,760
Project Markups	$1,885
Option 2. Project Estimate	**$5,645**

Option 3. Solar-powered stop signs (MUTCD R1-1) to convert to an all-way stop. Advanced "stop ahead" signs (MUTCD W3-1) used to notify approaching drivers of the all-way stop.

Material & Construction	$16,585
Project Markups	$8,300
Option 3. Project Estimate	**$24,885**

Short Term: SR 902 & Stanley Street North

Option 1. Reflective markers on a 1-foot interval for length of right-turn lane line (150-feet), improving lane visibility.

Material & Construction	$2,250
Project Markups	$1.135
Option 1. Project Estimate	**$3.385**

Option 2. Driveway pushed 15 feet west, width reduced by 5-feet, and terminus pushed east 10-feet, prior to ADA ramp. This allows taper length to increase from 30 to 60 feet.

Material & Construction	$87,380
Project Markups	$43,650
Option 2: Project Estimate	**$131,030**

Short Term: SR 902 & Lefevre Street

Option 1: Stop signs (MUTCD R1-1) to convert to an all-way stop. Advanced "stop ahead" signs (MUTCD W3-1) used to notify approaching drivers of the all-way stop.

Material & Construction	$3,315
Project Markups	$1,565
Option 1. Project Estimate	**$4,700**

Option 2. Solar-powered stop signs (MUTCD R1-1) to convert to an all-way stop. Advanced "stop ahead" signs (MUTCD W3-1) used to notify approaching drivers of the all-way stop.

Material & Construction	$16,585
Project Markups	$5,640
Option 2. Project Estimate	**$22,225**

Short Term: Roadway Public Works Design Standards

Develop Public Works standards that provide guidance on the design of multimodal streets within Medical Lake.

Option 1. Project Estimate	**$10,000**

Short Term: Intersection Crossing Improvements

Section 5.1 recommends the improvement of 14 crossings in Medical Lake with high visibility markings, lighting, and signs. In addition, three intersections were recommended with an RRFB set in addition to these measures. The City does not have the capital to provide all improvements at once unless a safety grant is obtained. As such, installation of 5-basic and 1-RRFB crossing is assumed every 6-years to address identified locations, 18-years needed to address all intersections.

The assumption for a basic location is two sets of signs assumed for main-line: two pedestrian crossing (W11-2) with diagonal arrow (W-16-7PL/R) signs. In addition, there would be two sets of signs with the pedestrian crossing (W11-2) and ahead signs (W16-P). All signs would have breakaway posts. Continental striping would be used on all approaches (4-crossings), and a streetlight is assumed for one corner with a candle strong enough to light the entire intersection.

Assumptions are the same at enhanced locations, just with the addition of an RRFB set to face traffic on the major street.

Material & Construction	$17,110
Project Markups	$8,560
Base Crossing Project Estimate	**$25,670**

Material & Construction	$76,760
Project Markups	$38,385
Base Crossing Project Estimate	**$115,145**

Short Term: SR 902 Complete Street, Lefevre to Graham

Widening includes the addition of a center lane with curb, gutter, and separated pathway south side (sidewalk, cu. The assumption adds 12-feet of pavement widening south from

the existing, southerly lane line. A 1.5-foot curb and gutter section would be provided, then a 6-foot separation to a 10-foot shared-use pathway extending 3,600-feet from Lefevre Street to Graham Road. Note there are cross-section widths that are moderately below typical WSDOT and AASHTO recommendations. This is to avoid the foundations of transmission power line poles located about 33-feet south of the southerly lane line.

Per County GIS, right-of-way is available to support widening. However, there is a BNSF rail line crossing of SR 902 about 300-feet west of North Stanley Street. The provision of a path on the south side of SR 902 would promote need for crossings. Long term, these would occur with roundabouts at Lefevre, Stanley Street, and Graham. In the interim, RRFB's could be deployed with advanced crossings notification signs.

Material & Construction	$3,198,915
Project Markups	$1,599,415
Project Estimate	**$4,798,330**

Short Term: Lefevre Complete Street, Hancock to Jefferson

Per County GIS, there is an approximate 73-foot right-of-way from Hancock Street to California Street, narrowing to 63-feet for the remainder of the corridor to Jefferson Street. To minimize the need for property acquisition, a 73-foot cross section was used for to 1,550-feet starting at Hancock Street and then 63-feet for the remainder to Jefferson Street, about 650-feet. The difference between the two cross sections is the provision of parking lanes on both sides of the street.

The Hancock Street to California Street section includes 12-foot through lanes, and 8-foot parking lanes which protect 5-foot bike lanes. The project assumes widening from outside lane lines, no reconstruction. There would be 1.5-foot curb and gutter sections, the gutter pan providing an additional foot to the bike lanes on each side of the street. Lastly, 10-foot sidewalk would be aligned on each side of the road. Again, the 8-foot parking lanes would drop from California Street to Jefferson Street. Yet, bicycle protection is needed, so the parking lanes would narrow to a hatched 3-foot buffer area to separate through lanes from vehicle lanes.

A bicycle crossing would be located at Jefferson Street so path users located on the west side of Lefevre Street, south of this intersection, could access the northbound bike lane.

Material & Construction	$2,544,805
Project Markups	$1,272,420
Project Estimate	**$3,817,225**

6. 2 Medical Lake TIP

The 6-Year City of Medical Lake Transportation Improvement Program recommended for Medical Lake is summarized by following **Table 6.1**. Shown is the recommended project with a brief description, the action, and the project construction cost estimate. Where improvement options were presented, the least expensive project was selected for initial installation. In addition, the complete street projects were identified with phases given the time it takes to advance large projects.

Table 6.1. Medical Lake 6-Year TIP		
Target Year and Project	Project Type	Project Cost
Year 2026		
Lake / Stanley: Install Cross-Traffic Signs	Design & Construction	$2,700
SR 902 / Stanley N.: Install Reflective Markers	Design & Construction	$3,385
SR 902 / Lefevre: Convert to All-Way Stop	Design & Construction	$4,700
Basic Crossing Installation	Design & Construction	$25,670
Year 2026 TIP Total		**$36,455**
Year 2027		
Roadway Public Works Design Standards	Planning	$10,000
SR 902 Complete Street; Multimodal Street	Planning & TIB Grant	$32,000
RRFB Crossing Installation	Design & Construction	$115,145
Year 2027 TIP Total		**$157,145**
Year 2028		
SR 902 Complete Street; Multimodal Street	Design, Permits, & Plans	$447,850
Basic Crossing Installation	Design & Construction	$25,670
Year 2028 TIP Total		**$473,520**
Year 2029		
SR 902 Complete Street; Multimodal Street	Construction	$4,318,490
Lefevre Complete Street; Multimodal Street	Planning & TIB Grant	$25,445
Basic Crossing Installation	Design & Construction	$25,670
Year 2029 TIP Total		**$4,369,605**
Year 2030		
Lefevre Complete Street; Multimodal Street	Design, Permits, & Plans	$356,275
Basic Crossing Installation	Design & Construction	$25,670
Year 2030 TIP Total		**$381,945**
Year 2031		
Lefevre Complete Street; Multimodal Street	Construction	$3,435,505
Basic Crossing Installation	Design & Construction	$25,670
Year 2030 TIP Total		**$3,461,175**

6. 3 Long-Range Projects

Again, the strategy presented by this Transportation Master Plan is to advance multimodal facilities through the provision of widening with active facilities and/or complete street upgrades for City arterials, collectors, and major local streets. Improvements were identified for several streets in Medical Lake. A loose priority is inferred in Section 4.3. These projects would include some variation of sidewalk, buffered bike lanes, shared-use paths, parking, lighting, crossing, widening, and/or sign improvements.

Construction costs do change with time, as do the priorities of agencies and funding agents. As such, the detailed cost of long-range projects were not estimated for this Plan. However, some level of understanding is needed for to help with City planning functions. Thus, a range of project costs were developed based on the costs estimated from the TIP; the SR 902 and Lefevre Street projects. The result is a planning, design, and construction cost estimate range of $1,300 to $1,700 per linear road foot; $7,000,000 to $9,000,000 per mile. This does align with FHWA's year 2020 "*Status of the Nation's Highways, Bridges, and Transit*", which provides urban lane-mile costs for roads (planning level costs), when factoring in inflation (https://www.fhwa.dot.gov/policy/23cpr/).

These ranges were then applied to the priorities from Section 4.3 to give cost ranges to the City, for planning functions. For instance, a complete street has been recommended as a

priority for Lake Street, Sherman Street to Freeman Drive. This is measured at a horizontal distance of about 2,650-feet per Google Earth. Thus, a cost range of $3.445 to $4.505 million would be estimated for the project.

Again, this is just a tool provided as a resource for planning purposes until the next TIP update is provided, with refined construction costs provided by the City Engineer. All of the road improvements planning costs suggested below include a degree of widening with active mobility improvements.

The priority improvements for functionally classified roadways with cost ranges are as follows, these would be targeted for construction by year 2050 following TIP project construction:

- Lake Street, Sherman to Freeman (2,650 ft)
  Cost Range: $3.445 to $4.505 million
- Jefferson Street, W 4th St to Lake (1,450 ft)
  Cost Range: $1.885 to $2.465 million
- W. 4th Street, North Trailhead to Jefferson (2,120 ft)
  Cost Range: $2.756 to $3.604 million
- Howard Street, Brooks to W. 4th St (610 ft)
  Cost Range: $0.793 to $1.037 million
- Brooks Road, San Salvador to Lefevre (2,520 ft)
  Cost Range: $3.276 to $4.284 million
- Stanley Street, Percival to Campbell (2,780 ft)
  Cost Range: $3.614 to $4.726 million
- Barker Street, Lefevre to Stanley (2,000 ft)
  Cost Range: $2.600 to $3.400 million
- Campbell Street, Lefevre to Stanley (2,000 ft)
  Cost Range: $2.600 to $3.400 million

To be clear, these are the priority projects for the City over the next 25 years. They do not address all City multimodal needs; just those important to commutes and safety. The assumption is this plan would be updated in 5 to 10-years, the TIP and long-range list would be updated with revised project priorities provided with time.

There were local streets identified for improvements, some as a function of proposed functional class upgrades noted subsequently. These are widening with active improvement or complete street projects developed following 25-year projects, summarized below with preliminary project costs.

- Jefferson Street, Brooks to Lefevre (3,370 feet)
  Cost Range: $4.381 to $5.729 million
- Barker Street, Stanley to Sherman (1,360 feet)
  Cost Range: $1.768 to $2.312 million
- Sherman/Henderson, SR 902 to Lake (3,965 feet)
  Cost Range: $5.155 to $6.741 million
- Stanley Street North, Tara Lee to SR 902 (2,000 ft)
  Cost Range: $2.600 to $3.400 million
- Graham Road, City Limits to SR 902 (3,685 feet)
  Cost Range: $4.791 to $6.265 million

Roundabout Intersections

Similarly, planning level construction cost estimates were also provided for roundabouts proposed at SR 902 with Lefevre

Street, South Stanley Street, and Graham Road; and for Stanley Street and Lake Street. Again, as this is a long-range review, a detailed cost estimate was developed for a typical single-lane roundabout for the City.

The design for this roundabout was modeled after Wellesley and A Street in the City of Spokane. This roundabout has an inscribed diameter of 125-feet, which is sufficient for school buses, city buses, and WB-50 trucks. A mountable center island is provided to accommodate WB-67 vehicles. Wider sidewalk was assumed in the roundabout for pedestrian and bike activities, with typical sidewalk in the approach. Bike lanes lead to transitions at the edges of the roundabout to the wide sidewalk. Landscaped buffers would be provided.

The footprint was assessed at locations mentioned, minor rights-of-way may be needed for intersection corners, which has been factored into costs. The roundabout assumes spitter islands with refuge. A resulting total cost estimate of **$2 million** can be assumed per each of the SR 902 roundabouts. Scaling down, an estimate of **$1.6 million** can be assumed for Stanley Street / Lake Street.

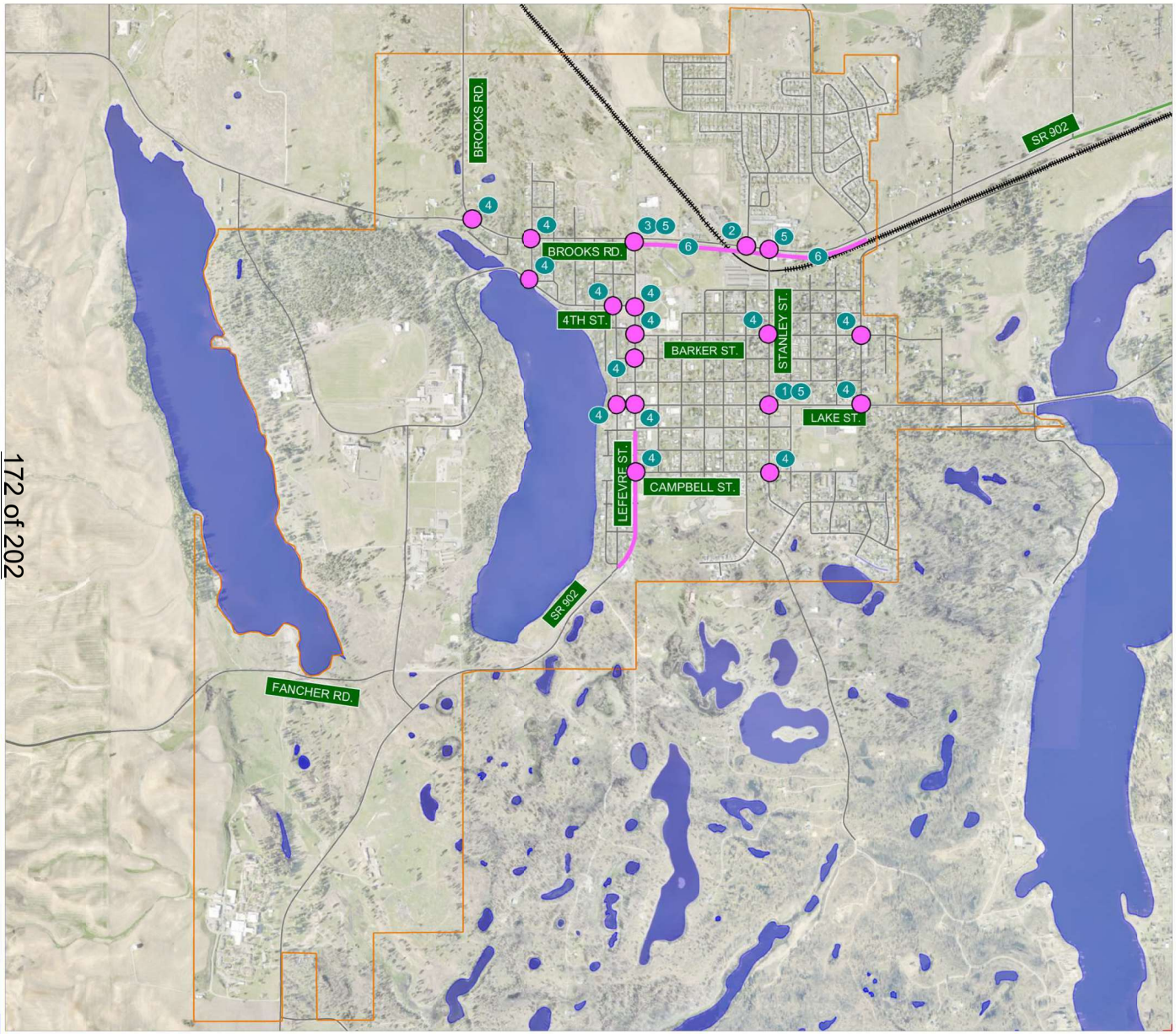
Exhibit 6.1 shows the type of roundabout that would be envisioned for these intersections, Wellesley Avenue and A Street in Spokane.

These are street projects that assume the road and sidewalk improvements discussed prior. Also highlighted are the

Exhibit 6.1. Wellesley Avenue & A Street Roundabout

bicycle recommendations emphasized for complete streets and intersections targeted for enhancement.

Improvement maps were created to help show the limits of the road and intersection projects discussed for the TIP and long-range plans. **Exhibit 6.2** shows 6-year improvements. **Exhibit 6.3** shows short-term improvements targeted for 6 to 20 years. Finally, **Exhibit 6.4** shows the longer-term projects anticipated for development after 20-years, as well as general alignments for growth areas (discussed Section 6.5).



N.T.S.

LEGEND

	6 YEAR IMPROVEMENTS
	6 YR INTERSECTION PROJECT

Summary of Proposed Imprcvements:

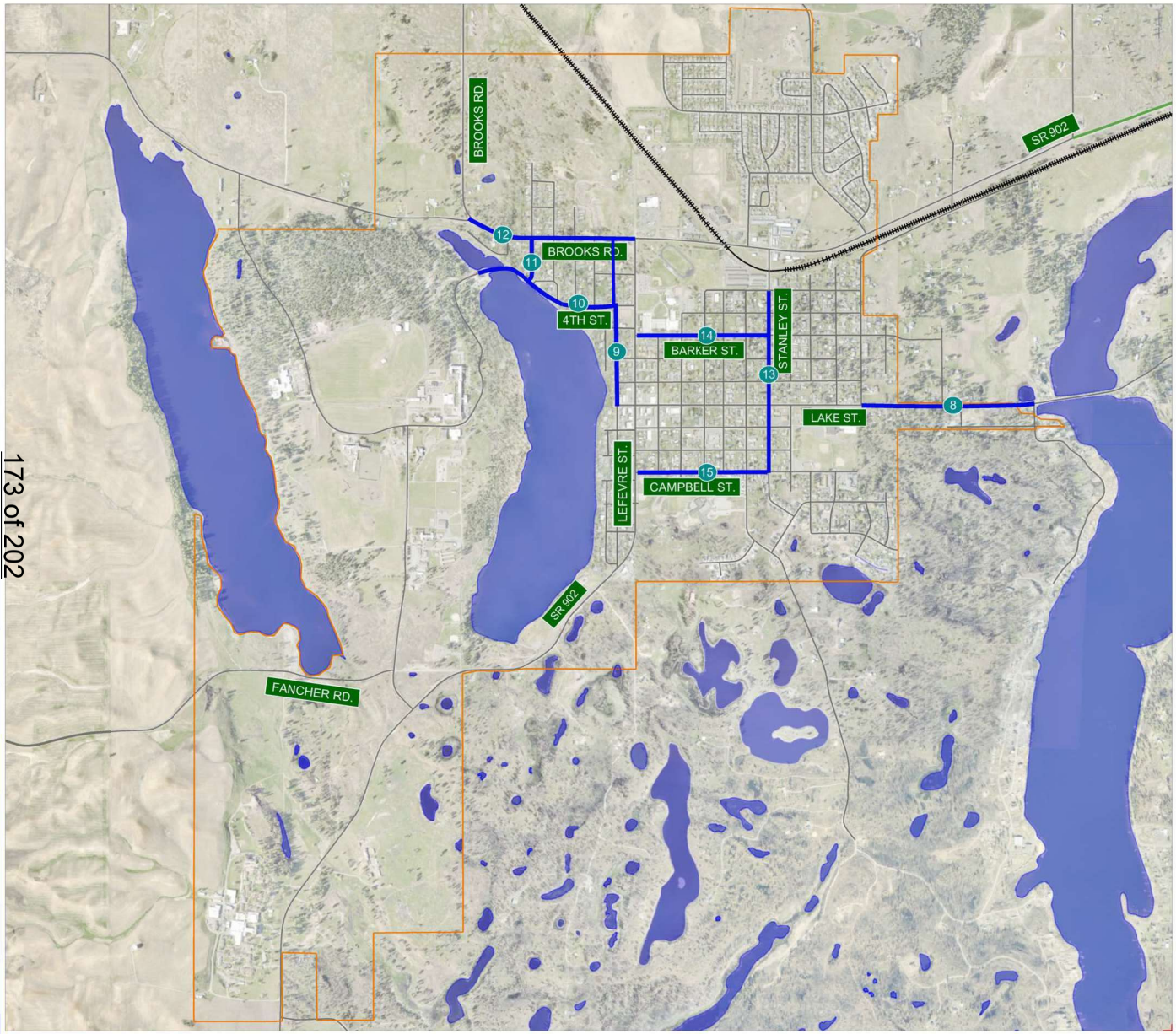
1. Lake/Stanley: Install Cross-Traffic Signs
2. SR 902/Stanley North; Install Reflective Markers
3. SR 902/Lefevre: Convert to All-Way Stop
4. High Viability Crossing Improvements/Upgrades
5. RRFB Crossing Improvement w/Signs and Stripes
6. SR 902 Complete Street; Widening, Curb, Gutter, and Path
7. Lefevre Complete Street; Curb, Gutter, Sidewalk, and Direction Bike Lanes

N.T.S.

Exhibit 6.2

PROPOSED IMPROVEMENTS
SHORT-TERM, 6-YEAR

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON



N.T.S.

LEGEND

———	6 - 20 YEAR ROAD PROJECTS
●	6 - 20 YR INTERSECTION PROJ

Summary of Proposed Improvements:

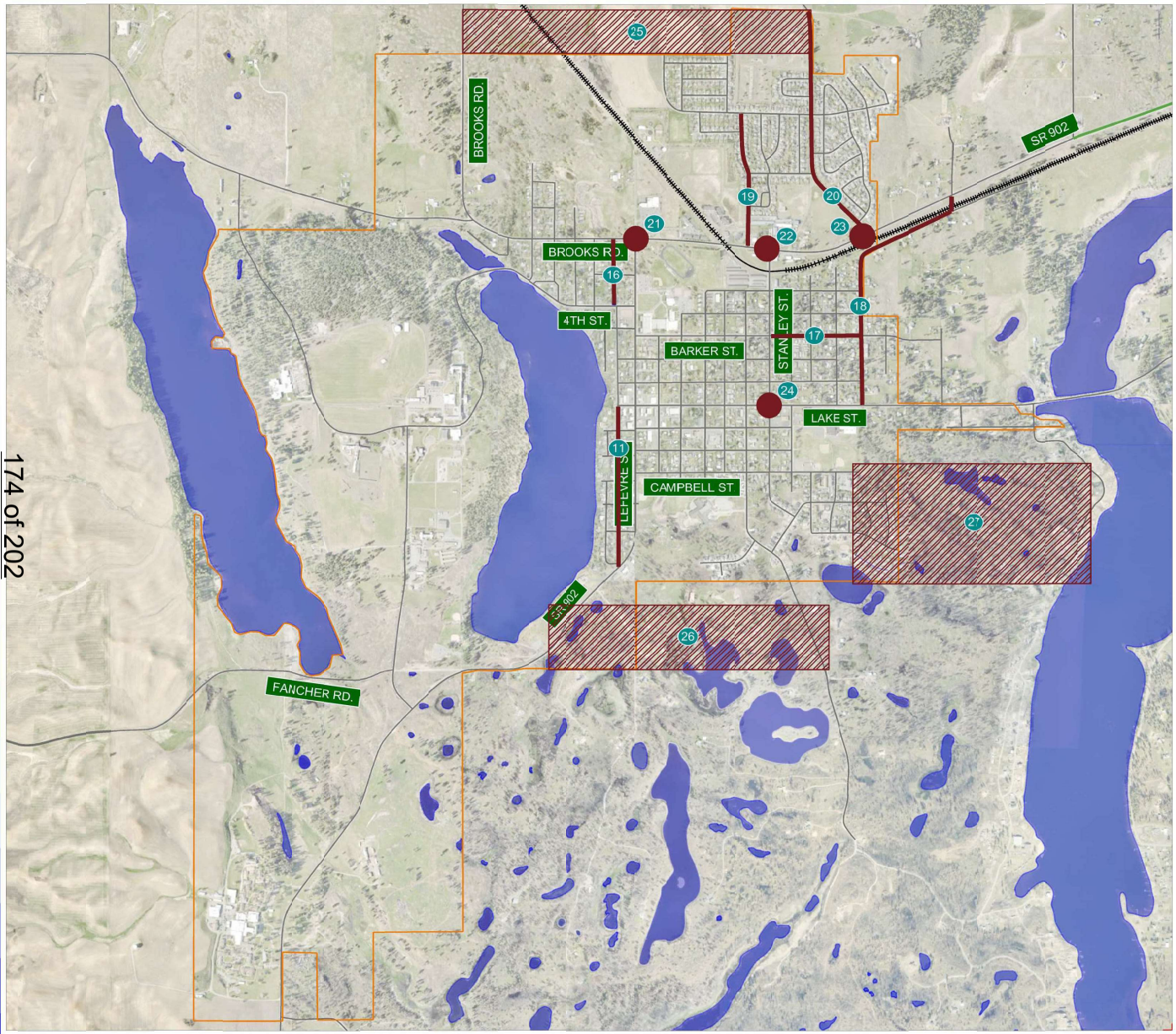
8. Lake St, Sidewalk and Bike Lanes, Sherman to Freeman
9. Jefferson, Sidewalk and Bike Lane (Both), 4th St to Lake St
10. 4th St, Pathway South Side, North Trail Head to Jefferson
11. Howard, Sidewalk and Bike Lanes, Brooks to 4th St
12. Brooks, Sidewalk and Pathway, San Salvador to Lefevre
13. Stanley, Sidewalk, Percival to Campbell
14. Barker St, Sidewalk and Bike Lanes, Lefevre to Stanley
15. Campbell St, Sidewalk and Bike Lanes, Lefevre to Stanley

N.T.S.

Exhibit 6.3

PROPOSED IMPROVEMENTS
MID-TERM, 6 - 20 YEAR

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON



N.T.S.

LEGEND

	20 PLUS YR ROAD PROJECTS
	20 PLUS YR INTERSECTION PR

Summary of Proposed Improvements:

16. Jefferson St, Bike Lanes, Brooks to Lefevre
17. Barker St, Bike Lanes, Stanley to Sherman
18. Sherman/Henderson, Bike Lanes, SR 902 to Lake
19. Stanley, Bike Lanes, Tara Lee to SR 902
20. Graham, Bike Lanes or Path, City Limit to SR 902
21. Lefevre Street/SR 902 Roundabout
22. Stanley Street South/SR 902 Roundabout
23. Stanley Street/Lake Street Roundabout
24. Lefevre Street/SR 902 Roundabout
25. North Collector, Shoulders Road and Share Use Path, Brooks to Graham
26. South Collector, Shouldered Road and Shared Use Path, SR 902 to Hallet Road/Medical Lake Road
27. East Collector, Shouldered Road and Shared Use Path, Hallet Road/Medical Lake Roac to Freeman Street

N.T.S.

Exhibit 6.4

PROPOSED IMPROVEMENTS
LONG-TERM, 20-PLUS YEAR

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

6. 4 Functional Classification Revisions

As indicated, streets are classified to understand how each serves local, regional, and State mobility. For instance, a principal or minor arterial serves regional needs, moving high levels of traffic between smaller communities or areas of a large city. Conversely, a local street is intended to access residential or small commercial areas. A collector directs local trips from these residential areas to arterials or highways.

There distinctions between roadway classes are based on factors such as use and intent. As it pertains to Medical Lake, several streets have been identified throughout this Plan for increased multimodal use within Medical Lake within intention of access more expansive residential areas. To that end, this report recommends the City consider petitioning (applying to) WSDOT to elevate the classification of select roads and roadway segments to collectors.

Reclassifications can be proposed as either major or minor collectors, depending on the preference of City officials. Reclassifying roads will help the City achieve three primary measures for future development:

1. A higher and better, complete street design standard would therefore become applicable.
2. When accepted by WSDOT, the roads become eligible for grant funding support (local roads are not typically eligible for grant funds from Federal and State agencies).
3. A network is established that development must adhere to when extending frontage and mitigating improvements as a function of entitlement processes.

Exhibit 6.5 shows and lists the proposed collector designation revisions for Medical Lake.

6. 5 Growth Area Roadway Alignments

City officials requested a review of possible road alignments to help move traffic within targeted growth areas of the City. Two of these are the north and east UGA expansion areas. The third is a developing district in south Medical Lake. The purpose was establishing alignments between established roadways to and through these areas.

A very preliminary review was performed, considering factors like topography, minimizing the number of owners that would be impacted by ROW/property, and attempting to minimize alignment through wetlands and sensitive areas. The general limits of these long-term future/possible, collectors are as follows, summarized with a basic design consideration:

- North UGA Collector
  Two lanes, wide shoulders and a shared-use path, Brooks Road to Graham Road.
- South Development Area Collector
  - Two lanes, wide shoulders and a shared-use path, SR 902 to Hallett Road/Medical Lake Road.

- East UGA Collector
  - Two lanes with wide shoulders and a shared-use path, Hallet/Medical Lake Road to Freeman Street

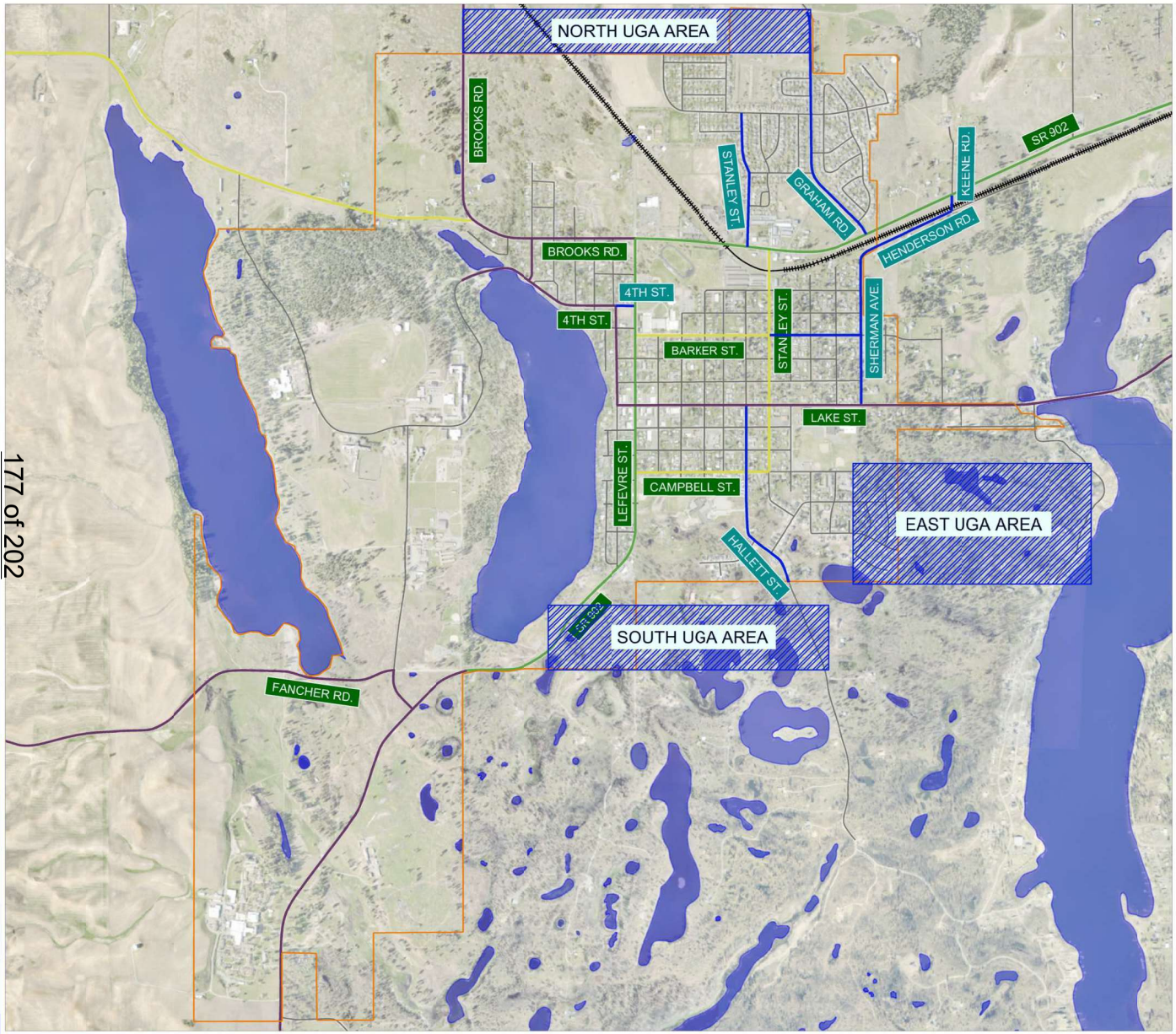
6. 6 INFLATION

Inflation has been neglected to this point. The construction costs shown in Table 6.1 are conservative (high-end), so inflation was not addressed, the same with the long-range planning estimates. With that said, inflation is a very real issue for agencies to understand and reflect in project costs.

The recommendation is that any future update to the TIP or this Plan factor inflation, accounting for increasing prices. Per resources such as WSDOT's historical pricing index pages (unit bid history webpage) and Engineering News Record (https://www.enr.com/) inflation tables, a 2.8% inflation factor has been occurring within more recent histories. To ensure conservative results, a 3% annual adjustment should be used to estimate future costs.

Per the prior example, a cost range of $3.445 to $4.505 million was estimated to provide a complete street along Lake Street, Sherman Street to Freeman Drive. If a year 2036 cost estimate were to be developed, a 3% compounding of 10-years would be applied for a total adjustment factor of 1.344. This would be applied against former costs to develop a revised range of $4.63 to $6.055 million for year 2036. For convenience, an inflation adjustment summary is as follows:

2027 = 1.03	2035 = 1.305	2043 = 1.653
2028 = 1.061	2036 = 1.344	2044 = 1.702
2029 = 1.093	2037 = 1.384	2045 = 1.754
2030 = 1.126	2038 = 1.426	2046 = 1.806
2031 = 1.159	2039 = 1.469	2047 = 1.860
2032 = 1.194	2040 = 1.513	2048 = 1.916
2033 = 1.230	2041 = 1.558	2049 = 1.974
2034 = 1.267	2042 = 1.605	2050 = 2.033



N.T.S.

LEGEND

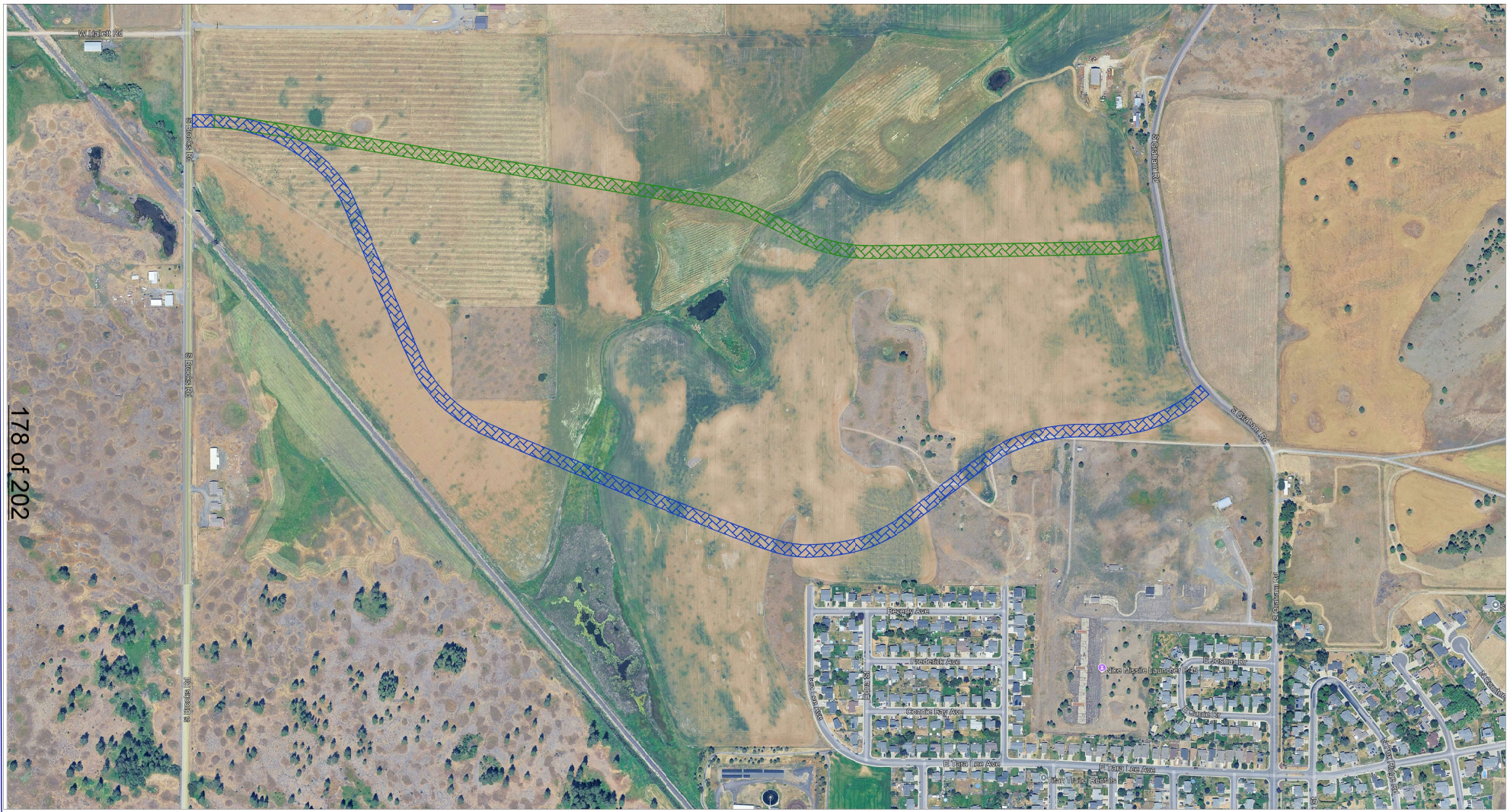
	PRINCIPAL ARTERIAL
	MINOR ARTERIAL
	MAJOR COLLECTOR
	MINOR COLLECTOR
	LOCAL STREET
	CITY URBAN BOUNDARY
	WASHINGTON EASTERN RAIL
	FUTURE COLLECTOR
	FUTURE COLLECTOR AREA

Proposed Revision to Major or Minor Collector

- Hallett Street, Lake Street to City Limit
- Stanley Street, Tara Lee Avenue to SR 902
- Graham Road, Tara Lee Avenue to SR 902
- Sherman Avenue, Henderson Rd to Lake St
- Henderson Rd, Sherman Ave to Keene Rd
- Keene Road, Henderson Road to SR 902
- 4th Street, Jefferson Street to Lefevre Street
- Barker Street, Stanley St to Sherman Ave

Exhibit	
6.5	PROPOSED FUNCTIONAL CLASSIFICATIONS

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON



N.T.S.

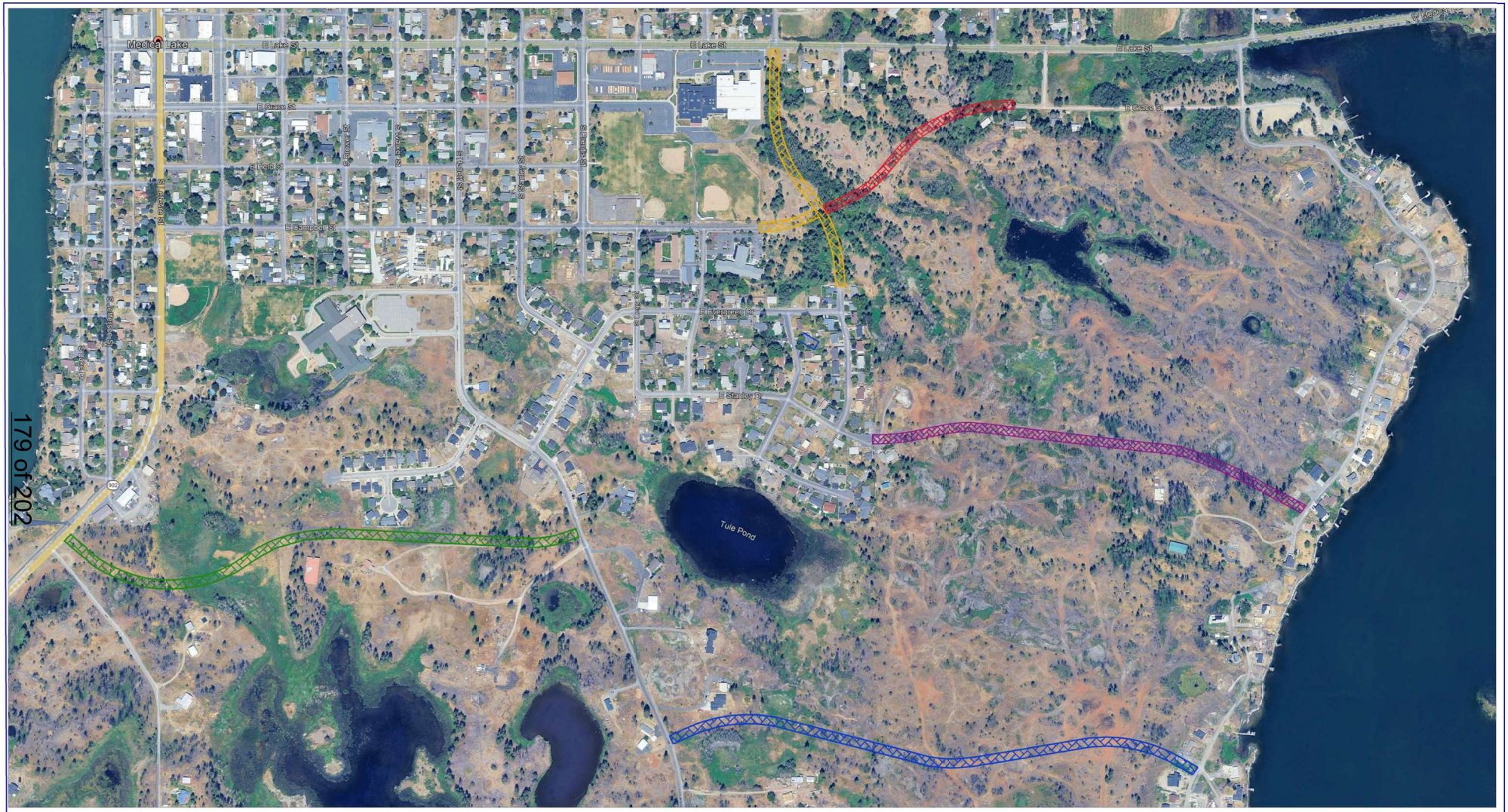
LEGEND

	ALIGNMENT OPTION # 1
	ALIGNMENT OPTION # 2

Exhibit 6.6

PROPOSED ROAD ALIGNMENTS
NORTH UGA AREA

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON



N.T.S.

LEGEND

	ALIGNMENT OPTION # 1		ALIGNMENT OPTION # 3		ALIGNMENT OPTION # 5
	ALIGNMENT OPTION # 2		ALIGNMENT OPTION # 4		

Exhibit 6.7

PROPOSED ROAD ALIGNMENTS
SOUTH GROWTH & EAST UGA

CITY OF MEDICAL LAKE
TRANSPORTATION MASTER PLAN
MEDICAL LAKE, WASHINGTON

Appendix A:

Glossary of Terms

This section of the Technical Appendix provides a glossary of terms.

- Access point - An intersection, driveway, or opening on a roadway that provides access to a land use or facility.
- All-way stop-controlled - An intersection with stop signs located on all approaches.
- Arterial - (General Definition) A signalized street that primarily serves through traffic and secondarily provides access to abutting properties.
- Average daily traffic (ADT) - The average 24-hour traffic volume at a given location on a roadway.
- Capacity - The number of vehicles or persons that can be accommodated on a roadway, roadway section, or at an intersection over a specified period. Capacity is also a term used to define limits for transit, pedestrian, and bicycle facilities. Concept typically expressed as vehicles per hour, vehicles per day, or persons per hour or per day.
- Collector street - (General Definition) A surface street providing land access and traffic circulation within residential, commercial, and industrial areas.
- Cycle - A complete sequence of cycle indicators.
- Cycle length - The total time for a signal to complete one cycle.
- Delay - The additional travel time experienced by a driver, passenger, or pedestrian.
- Demand - The number of users desiring service on a highway system or street over a specified time. Concept typically expressed as vehicles per hour, vehicles per day, or persons per hour or per day.
- Departing sight distance - The length of road required for a vehicle to turn from a stopped position at an intersection (or driveway) and accelerate to travel speed.
- Design Hour - The peak hour of traffic volumes/conditions; typically used in traffic studies, design analyses, and design. Typically recognized as the 85th percentile hours and often one of the peak/commute hours.
- Downstream - The direction of traffic flow.
- Functional class - A transportation facility defined by the traffic service it provides.
- Growth factor - A percentage increase applied to current traffic demands or counts to estimate future demands/volumes.
- Intersection Control Analysis - An intersection control analysis (ICA) is a traffic/transportation study used to recommend geometric and traffic control improvements for an intersection or intersections.
- Level of Service - The standard used to evaluate traffic operating conditions of the transportation system. This is a qualitative assessment of the quantitative effect of factors such as speed, volume of traffic, geometric

features, traffic interruptions, delays, and freedom to maneuver. Operating conditions are categorized as LOS A through LOS "F." LOS A generally represents the most favorable driving conditions and LOS F represents the least favorable conditions.

- Mainline - The primary through roadway as distinct from ramps, auxiliary lanes, and collector-distributor roads.
- Major Street - The street not controlled by stop signs at a two-way stop-controlled intersection.
- Minor arterial - (General Definition) A functional category of a street allowing trips of moderate length within a small geographical area.
- Operational analysis - A use of capacity analysis to determine the level of service on an existing or projected facility, with known projected traffic, roadway, and control conditions.
- Peak Generator Hour - The single hour (or hours) in a day during which trip generation for a development or land use is highest.
- Peak hour - A single hour (or hours) in a day during which the maximum traffic volume occurs on a given facility (roadway, intersection, etc.). Typically, the peak hour is known as the "rush" hour that occurs during the AM or PM work commutes of the typical weekday. The absolute peak hour of the day can also be referred to as the design hour.
- Peak Generator Hour - The peak hourly volume generated by a particular development or land use. In the context of traffic reports, the generator hour can occur in the morning and afternoon, described as AM and PM peak generator hours, respectively.
- Peak hour factor - The hourly volume during the maximum-volume hour of the day divided by the peak 15-minute flow rate within the peak hour; a measure of traffic demand fluctuation within the peak hour.
- Principal Arterial - (General Definition) A major surface street with relatively long trips between major points, and with through-trips entering, leaving, and passing through the urban area.
- Queue - A line of vehicles, bicycles, or persons waiting to be served by the system in which the flow rate from the front of the queue determines the average speed within the queue. Slower moving vehicles or people joining the rear of the queue are usually considered a part of the queue.
- Roadside obstruction - An object or barrier along a roadside or median that affects traffic flow, whether continuous (e.g., a retaining wall) or not continuous (e.g., light supports or a bridge abutment).
- Road characteristic - A geometric characteristic of a street or highway, including the type of facility, number and width of lanes, shoulder widths and lateral clearances, design speed, and horizontal and vertical alignment.

- Roundabout - An unsignalized intersection with a circulatory roadway around a central island with all entering vehicles yielding to the circulating traffic.
- Shoulder - A portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, emergency use, and lateral support of the subbase, base, and surface courses.
- Stopping sight distance - The length of road needed for a moving vehicle to come to a complete stop prior to an obstruction sighted on the road.
- Traffic conditions - A characteristic of traffic flow, including distribution of vehicle types in the traffic stream, directional distribution of traffic, lane use distribution of traffic, and type of driver population on a given facility.
- Travel speed - The average speed, in miles per hour, of traffic computed as the length of the roadway segment divided by the average travel time of the vehicles traversing the segment.
- Travel time - The average time spent by vehicles traversing a highway segment, including control delay, in seconds per vehicle or minutes per vehicle.
- Trip Distribution and Assignment - The predicted travel patterns of vehicle trips as they approach and depart a land use. Distribution refers to the travel pattern, usually defined in percentages or fractions, and assignment refers to vehicle trip ends.
- Traffic forecast - The predicted traffic volume of the analysis horizon year or period. Most typically predicted for the weekday, AM peak hour, PM peak hour, or AM or PM peak generator hours of the typical weekday.
- Traffic impact analysis - A traffic impact analysis (TIA) is an engineering and planning study that forecasts the potential traffic and transportation impacts of a proposed development on an area, neighborhood, or community. Reports can also be referred to as a traffic impact study (TIS).
- Trip generation - The number of vehicle trips generated by a development or land use. Most typically predicted for the weekday, AM peak hour, PM peak hour, or AM or PM peak generator hours of the typical weekday.
- Two-way left-turn lane - A lane in the median area that extends continuously along a street or highway and is marked to provide a deceleration and storage area, out of the through-traffic stream, for vehicles traveling in either direction to use in marking left turns at intersections and driveways.
- Two-way stop-controlled - The type of traffic control at an intersection where drivers on the minor street or drivers turning left from the major street wait for a gap in the major street traffic to complete a maneuver. Typically, the minor approaches are stop-controlled.
- Unsignalized intersection - An intersection not controlled by traffic signals.

- Upstream - The direction from which traffic is flowing.
- Volume - The number of persons or vehicles passing a point on a lane, roadway, or other traffic-way during some time interval, often one hour, expressed in vehicles, bicycles, or persons per hour.
- Volume-to-capacity ratio - The ratio of flow rate to capacity for a transportation facility.
- Walkway - A facility provided for pedestrian movement and segregated from vehicle traffic by a curb or provided for on a separate right-of-way.

Appendix B:

HCM Methodology

All intersections capacity conditions were analyzed using the methodologies presented in the latest (7th) edition of the *Highway Capacity Manual* (HCM) updated in 2022. The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within the traffic stream. The individual levels of service are described by factors that include speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations A through F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions; a description of each LOS grade is provided as follows:

LOS A represents uninterrupted travel operations. A roadway operating at LOS B may also be over-engineered, where resources could have been allocated to higher priority areas.

LOS B represents reasonably free-flow travel operations, unaffected by the presence of other vehicles. A roadway operating at LOS A may be over-engineered, where resources could have been allocated to higher priority areas.

LOS C represents stable travel operations and average speeds remain at or near free-flow conditions. This is an ideal LOS, requiring drivers to be vigilant for safety and representing appropriate infrastructure investment.

LOS D represents travel operations that are acceptable but are approaching instability. Speeds decrease and the roadway investment is serving an appropriate number of users.

LOS E represents travel operations that are unacceptable to the city. Traffic is unstable and flow, speed, and maneuverability are limited. LOS E may be mitigated with improvements that include traffic control measures, signal timing adjustments, or capacity improvements.

Table 5. Intersection LOS Criteria

Level of Service	Control Delay (sec/veh)	
	Signalized	Unsignalized
A	≤ 10	≤ 10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80 (or v/c>1)	> 50 (or v/c>1)

Source: Exhibits 19-8, 20-2, 21-8, and 22-8, Highway Capacity Manual, 7th Edition (2022)

LOS F represents travel operations that are forced flow or breakdown conditions in queued traffic. Stop-and-go travel with long delays exists as vehicles shuffle through queues. Like LOS E, these conditions must be mitigated.

Levels of service for intersections are defined within ranges of average control delay experienced per vehicle, the number of seconds a vehicle can expect to wait due to the presence of a traffic control device. Signalized LOS is the function of control delay experienced by all vehicles at the intersection, as is LOS for an all-way stop. However, LOS for an unsignalized one or two-way stop to another road is the function of control delay experienced within the worse, stopped approach or approach movement. **Table 5** lists LOS criteria for signalized and unsignalized intersections (all or partial stops).

The LOS (capacity) analysis was developed using Synchro software, version 12.0. Synchro 12.0 software calculates the LOS per HCM 7th edition methodology. The 7th edition HCM documents the signalized LOS calculation methodology which considers lane geometry,

traffic volumes and cycle length/phasing to compute LOS. Synchro analysis worksheets report individual movement delay/LOS and overall delay/LOS for signalized intersections; unsignalized intersection worksheets report the worst-case delay/LOS and the average overall intersection delay.

Appendix C:

Summary Collision Data

CURRED ON ALL ROADS IN THE CITY OF MEDICAL LAKE

1/2020 - 12/31/2024

Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

JURISDICTION	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)
City Street	Medical Lake	CONNIE RAY AVE	300		30	F	E	EDNA ST		EC03447	12/20/2021	12:12	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Intersection Related but Not at Intersectio	Overcast	Snow/Slush	Daylight	One parked--one moving	Making Right Turn	Legally Parked, Unoccupied	North	East			Other Contributing Circ Not Listed	Operating Recklessly or Aggressively	None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	E BARKER ST	416	N BROWER ST						EC65936	07/19/2022	18:17	No Apparent Injury	0	0	2	0	0	Not Stated	Passenger Car	At Intersection and Related	Clear	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Other Contributing Circ Not Listed		None	Lane of Primary Trafficway
City Street	Medical Lake	E BARKER ST	698	N STANLEY ST						ED33562	02/07/2023	14:47	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Starting in Traffic Lane	Making Left Turn	West	East	South	West	Distractions Outside Vehicle		Unknown Distraction	Lane of Primary Trafficway
City Street	Medical Lake	E FELLOWS ST		N PRENTIS ST						EC98654	10/30/2022	12:05	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	E FELLOWS ST	407	N WALKER ST						3878554	10/22/2021	14:33	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	E GRACE ST	0	S WASHINGTON ST						3841229	02/24/2020	11:34	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle	Disregard Traffic Sign and Signals	None	Lane of Primary Trafficway
City Street	Medical Lake	E HERB ST	0	S HALLETT ST						EA05828	01/15/2020	21:31	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Snowing	Ice	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	609	N STANLEY ST						EF36617	09/20/2024	08:44	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Disregard Traffic Sign and Signals		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	609	N STANLEY ST						EB90581	11/14/2021	16:49	Suspected Minor Injury	5	0	3	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast	Wet	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West	Disregard Traffic Sign and Signals		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	609	N STANLEY ST						3878559	07/15/2022	10:27	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	486	N WALKER ST						EE89672	06/22/2024	10:48	Possible Injury	1	0	2	0	0	Motorcycle	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped for Traffic	West	East	West	Vehicle Stopped	Follow Too Closely		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	298	S BROAD ST						ED97728	09/08/2023	17:03	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	South	West	West	None		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	1845	S FREEMAN DR						3879723	08/21/2022	12:45	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	South	West	West	East	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	0	S STANLEY ST						EA08867	01/25/2020	09:02	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	609	S STANLEY ST						EF19813	09/27/2024	13:18	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South	None		Disregard Traffic Sign and Signals	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST		S STANLEY ST						ED90146	08/13/2023	17:02	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	609	S STANLEY ST						EA81311	11/14/2020	14:21	Suspected Minor Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Disregard Traffic Sign and Signals		None	Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	100		157	F	E	902		EB41830	06/22/2021	18:10	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	One parked--one moving	Backing	Legally Parked, Unoccupied	Vehicle Backing	Vehicle Backing			Improper Backing		None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	E LAKE ST	1501		149	F	E	KEENE LN		EA67790	09/29/2020	20:20	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Dark-Street Lights On	Vehicle Strikes Deer	Going Straight Ahead		East	West			None			Lane of Primary Trafficway
City Street	Medical Lake	E LAKE ST	100		38	F	W	N BROAD ST		EA71807	10/08/2020	18:21	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Clear	Dry	Dusk	One parked--one moving	Backing	Legally Parked, Unoccupied	Vehicle Backing	Vehicle Backing			Improper Backing		None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	E LAKE ST	800		99	F	E	N PRENTIS ST		EB23133	04/16/2021	14:00	No Apparent Injury	0	0	2	0	0	Not Stated	Passenger Car	Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	One parked--one moving	Going Straight Ahead	Legally Parked, Unoccupied					Unknown Distraction		None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	E LAKE ST	1200		269	F	W	S BRAYTON RD		EE72351	04/27/2024	07:40	Unknown	0	0	1	0	0	Not Stated		Not at Intersection and Not Related	Clear	Dry	Unknown	Garbage / Recycle Containers (Out for PU)	Going Straight Ahead		East	West			Other Contributing Circ Not Listed			Outside Shoulder of Primary Trafficway
City Street	Medical Lake	E LAKE ST	1300		150	F	W	S BRAYTON RD		EF41836	12/02/2024	08:44	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Overcast	Dry	Daylight	Tree or Stump (stationary)	Going Straight Ahead		East	West			Apparently Asleep or Fatigued			Past the Outside Shoulder of Primary Trafficway
City Street	Medical Lake	E STANLEY DR	1000		75	F	E	S STANLEY CT		3878558	05/02/2022	09:39	No Apparent Injury	0	0	2	0	0	Not Stated	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Raining	Wet	Dark-No Street Lights	One parked--one moving	Other*	Legally Parked, Unoccupied			Vehicle Backing	Vehicle Stopped	Unknown Distraction		None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	E TARA LEE AVE	500		45	F	E	WILLIAM ST		EA93659	12/20/2020	00:01	No Apparent Injury	0	0	2	0	0	Passenger Car	Not Stated	Not at Intersection and Not Related	Clear or Partly Cloudy	Unknown	Unknown	One parked--one moving	Legally Parked, Occupied	Going Straight Ahead					None		Other Contributing Circ Not Listed	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	MAPLE ST		SPRUCE ST						ED37732	02/25/2023	07:03	Suspected Minor Injury	1	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Not Related	Clear	Ice	Daylight	Tree or Stump (stationary)	Going Straight Ahead		North	North			Exceeding Reas. Safe Speed			Past the Outside Shoulder of Primary Trafficway
City Street	Medical Lake	MAPLE ST			350	F	E	N HOWARD ST		EF13725	09/09/2024	18:35	Suspected Minor Injury	1	0	1	0	0	Motorcycle		Not at Intersection and Not Related	Clear	Dry	Daylight	Earth Bank or Ledge	Negotiating a Curve		Southeast	West			Other Contributing Circ Not Listed			Past the Outside Shoulder of Primary Trafficway
City Street	Medical Lake	N BROAD ST	101	E LADD ST						3878555	11/11/2021	09:14	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining	Wet	Daylight	Entering at angle	Starting in Traffic Lane	Starting in Traffic Lane	West	East	South	North	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	N BROOKS RD	700		118	F	NW	W BROOKS RD		EA22948	03/11/2020	08:32	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Not at Intersection and Not Related	Clear	Dry	Daylight	From opposite direction - both moving - head-on	Going Straight Ahead	Going Straight Ahead	East	West	West	East	Other Contributing Circ Not Listed		None	Lane of Primary Trafficway
City Street	Medical Lake	N BROWER ST	401	E BARKER ST						EE98057	07/20/2024	15:27	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North	East	West	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	201	E LADD ST						EE36690	12/25/2023	03:59	Suspected Serious Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear	Dry	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	South	North	Under Influence of Alcohol		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST		E LAKE ST						EE81061	05/24/2024	09:33	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	101	E LAKE ST						EC57283	06/18/2022	10:56	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Overcast	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	101	E LAKE ST						ED93492	08/25/2023	22:05	Suspected Minor Injury	3	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear	Dry	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	101	E LAKE ST						EC66360	07/20/2022	18:22	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	East	West	None		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	0	E LAKE ST						3841231	02/25/2020	11:54	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped at Signal or Stop Sign	North	South	North	South	Follow Too Closely		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	101	E LAKE ST						EB28072	05/06/2021	12:27	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	600	RR S OF SR 902						EB05262	02/05/2021	08:50	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	School Bus	At Intersection and Related	Clear	Wet	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped at Signal or Stop Sign	South	North	Vehicle Stopped	Vehicle Stopped	Other Distractions		None	Lane of Primary Trafficway
City Street	Medical Lake	N STANLEY ST	821		100	F	N	SR 902		ED03886	11/14/2022	00:00	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear	Dry	Dark-Street Lights On	Other Objects	Going Straight Ahead		North	South			Overcorrecting / Oversteering			Outside Shoulder of Primary Trafficway
City Street	Medical Lake	N WALKER ST	351	E BARKER ST						EB01485	01/26/2021	19:54	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear	Ice	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North	East	West	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
City Street	Medical Lake	N WALKER ST	501	E FELLOWS ST						EC99122	10/31/2022	21:10	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Raining	Wet	Dark-No Street Lights	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Distractions Outside Vehicle	Disregard Traffic Sign and Signals	None	Lane of Primary Trafficway
City Street	Medical Lake	N WASHINGTON ST	400		112	F	S	E FELLOWS ST		ED24216	01/09/2023	09:31	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Driveway	Clear	Wet	Daylight	One parked--one moving	Backing	Legally Parked, Unoccupied	Vehicle Backing	Vehicle Backing			Improper Backing		None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	PINE ST	300		335	F	NW	S MEDICAL LAKE TYLER RD		EB38874	06/13/2021	17:40	Suspected Minor Injury	1	0	1	0	0	Motorcycle		Not at Intersection and Not Related	Clear	Dry	Daylight	Earth Bank or Ledge	Negotiating a Curve		North	South			Under Influence of Alcohol			Past the Outside Shoulder of Primary Trafficway
City Street	Medical Lake	S BROWER ST	364	E HERB ST						EC59466	06/27/2022	22:55	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear	Dry	Dark - Unknown Lightin	Entering at angle	Making Right Turn	Going Straight Ahead	South	East	West	East	Exceeding Stated Speed Limit		Did Not Grant RW to Vehicle	Lane of Primary Trafficway
City Street	Medical Lake	S BROWER ST	100		26	F	N	E GRACE ST		EB23144	04/17/2021	17:12	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear	Dry	Daylight	Wood Sign Post	Going Straight Ahead		North	South			Improper Signal			Past the Outside Shoulder of Primary Trafficway
City Street	Medical Lake	S GRANT AVE	473	E EVERGREEN DR						EA78978	10/30/2020	21:30	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Overcast	Unknown	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North	Other Contributing Circ Not Listed		None	Lane of Primary Trafficway
City Street	Medical Lake	S JEFFERSON ST	298	W HANCOCK ST						3878551	10/11/2020	12:30	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	North	South	South	North	Disregard Traffic Sign and Signals		None	Lane of Primary Trafficway
City Street	Medical Lake	S LAKE DR	500		57	F	N	OREGON ST		EE72819	04/30/2024	16:10	Unknown	0	0	1	0	0	Not Stated		Not at Intersection and Not Related	Clear	Dry	Daylight	Building	Backing		Vehicle Backing	Vehicle Backing			Other Contributing Circ Not Listed			Past the Outside Shoulder of Primary Trafficway
City Street	Medical Lake	S SILVER LAKE AVE	600		278	F	S	E EVERGREEN DR		ED39812	02/28/2023	16:21	No Apparent Injury	0	0	2	0	0	Farm Tractor and/or Farm equipment	Passenger Car	Not at Intersection and Not Related	Clear	Snow/Slush	Daylight	One parked--one moving	Going Straight Ahead	Legally Parked, Unoccupied	South	North			Unknown Distraction		None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	S STANLEY ST	500		111	F	NW	S EVERGREEN DR		EC81009	09/02/2022	05:00	No Apparent Injury	0	0	2	0	0	Not Stated	Passenger Car	Not at Intersection and Not Related	Clear	Dry	Dawn	One parked--one moving	Going Straight Ahead	Legally Parked, Unoccupied	Northwest	Southeast			Unknown Distraction		None	Outside Shoulder of Primary Trafficway
City Street	Medical Lake	W BROOKS RD	277	N STAPLES ST						EF30083	10/29/2024	15:08	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped at Signal or Stop Sign	West	East	West	Vehicle Stopped	Follow Too Closely		None	Lane of Primary Trafficway
City Street	Medical Lake	WILLIAM ST	1109	CONNIE RAY AVE						3879708	12/09/2021	08:00	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	School Bus	At Intersection and Related	Overcast	Dry	Daylight	Entering at angle	Going Straight Ahead	Making Right Turn	North	South	West	South	Did Not Grant RW to Vehicle		None	Lane of Primary Trafficway
State Route	Medical Lake	902							3.86	EB15589	03/20/2021	13:29	Possible Injury	1	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Overcast	Dry	Daylight	Tree or Stump (stationary)	Going Straight Ahead		South	North			Other Distractions			Past Right Shoulder Increasing Milepost
State Route	Medical Lake	902							5.00	EA21332	03/02/2020	22:10	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear	Dry	Dark-No Street Lights	Domestic animal (horse, cow, sheep, etc)	Going Straight Ahead		South	North			None			Lane 1 Increasing Milepost
State Route	Medical Lake	902							5.11	ED06140	11/20/2022	00:00	Unknown	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear	Dry	Dark-Street Lights On	Culvert and/or other Appurtenance in Ditch	Negotiating a Curve		East	West			Other Contributing Circ Not Listed			Past Right Shoulder Increasing Milepost
State Route	Medical Lake	902							5.46	EB24270	04/09/2021	19:35	No Apparent Injury	0	0	2	0	0	Passenger Car	Not Stated	Not at Intersection and Not Related	Clear	Dry	Dark-No Street Lights	From same direction - both going straight - both moving - rear-en	Going Straight Ahead	Going Straight Ahead	South	North	South	North	None		Other Contributing Circ Not Listed	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.03	EE65198	04/03/2024	13:07	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped for Traffic	North	South	Vehicle Stopped	Vehicle Stopped	Other Distractions		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.09	EB23134	04/17/2021	14:11	Suspected Minor Injury	2	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	East	West	North	South	Did Not Grant RW to Vehicle		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.16	EA31837	04/29/2020	20:48	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Clear	Dry	Dark-No Street Lights	Street Light Pole or Base	Making Left Turn		East	South			Physically Impaired			Past Right Shoulder Decreasing Milepost
State Route	Medical Lake	902							6.31	ED05275	11/15/2022	14:55	Possible Injury	2	0	2	0	0	Passenger Car	School Bus	At Intersection and Related	Overcast	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped at Signal or Stop Sign	South	North	South	Vehicle Stopped	Follow Too Closely		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.56	EA77972	11/04/2020	17:34	No Apparent Injury	0	0	2	0	0	Passenger Car	Truck & Trailer	At Intersection and Related	Clear	Ice	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	East	West	Under Influence of Alcohol		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.56	EF47296	12/17/2024	14:24	Suspected Minor Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Raining	Wet	Other	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South	Did Not Grant RW to Vehicle		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.56	EC20364	02/09/2022	15:04	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Did Not Grant RW to Vehicle		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.56	EB17711	03/29/2021	16:55	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	South	North	East	West	Did Not Grant RW to Vehicle		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.62	ED07016	11/22/2022	16:16	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Snowing	Snow/Slush	Dark-Street Lights Off	Entering at angle	Making Right Turn	Stopped for Traffic	East	North	Vehicle Stopped	Vehicle Stopped	Exceeding Reas. Safe Speed		None	Intersecting Road Decreasing Milepost
State Route	Medical Lake	902							6.71	EA35641	05/24/2020	15:47	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear	Dry	Daylight	Boulder (stationary)	Going Straight Ahead		East	West			Under Influence and Alcohol or Dr	Operating Recklessly or Aggressively		Past Right Shoulder Increasing Milepost
State Route	Medical Lake	902							6.88	EC99043	10/27/2022	07:07	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Overcast	Dry	Dawn	Entering at angle	Making Left Turn	Making Left Turn	North	East	West	North	Did Not Grant RW to Vehicle		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.94	EF51446	12/27/2024	17:28	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Intersection Related but Not at Intersectio	Overcast	Dry	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-en	Starting in Traffic Lane	Stopped for Traffic	East	West	East	Vehicle Stopped	Unknown Distraction		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.94	EB38245	06/06/2021	17:20	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Overcast	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped for Traffic	East	West	East	Vehicle Stopped	Distractions Outside Vehicle		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.94	EA95280	12/30/2020	08:14	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Driveway within Major Intersection	Snowing	Snow/Slush	Daylight	Entering at angle	Making Right Turn	Going Straight Ahead	North	West	East	West	Did Not Grant RW to Vehicle		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.94	3878553	09/29/2021	07:25	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - both moving - rear-en	Going Straight Ahead	Going Straight Ahead	West	East	West	East	Follow Too Closely		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.94	3878556	04/05/2022	11:55	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped for Traffic	East	West	East	West	Follow Too Closely		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.95	EF36620	11/12/2024	07:17	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Clear	Dry	Daylight	From opposite direction - all others	Going Straight Ahead	Going Straight Ahead	West	East	East	West	Apparently Asleep or Fatigued		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.95	EC76147	08/19/2022	13:16	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped for Traffic	East	West	East	Vehicle Stopped	Exceeding Reas. Safe Speed		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.95	EC98653	10/29/2022	10:39	Suspected Minor Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Driveway	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	South	West	East	Did Not Grant RW to Vehicle		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.97	EA84102	11/24/2020	09:04	Suspected Minor Injury	2	0	2	0	0	Passenger Car	Passenger Car	Not at Intersection and Not Related	Overcast	Wet	Daylight	From opposite direction - all others	Negotiating a Curve	Going Straight Ahead	East	West	West	East	Exceeding Stated Speed Limit		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.97	EC90342	10/05/2022	07:27	Suspected Minor Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Driveway	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-en	Going Straight Ahead	Stopped for Traffic	West	East	East	Vehicle Stopped	Follow Too Closely		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.98	EA14329	02/11/2020	15:20	Suspected Serious Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Intersection Related but Not at Intersectio	Clear	Dry	Daylight	From same direction - both going straight - both moving - rear-en	Going Straight Ahead	Slowing	West	East	West	East	Follow Too Closely		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							6.98	EB97185	11/27/2021	13:47	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Driveway	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Right Turn	Going Straight Ahead	South	East	West	East	Did Not Grant RW to Vehicle		None	Lane 1 Decreasing Milepost
State Route	Medical Lake	902							6.99	EF02301	07/30/2024	19:38	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	Intersection Related but Not at Intersectio	Overcast	Dry	Daylight	From same direction - both going straight - both moving - rear-en	Going Straight Ahead	Slowing	West	East	West	East	Exceeding Reas. Safe Speed		None	Lane 1 Increasing Milepost
State Route	Medical Lake	902							7.06	EE74481	05/03/2024	06:44	No Apparent Injury	0	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	Fence	Negotiating a Curve		East	North			None			Past Right Shoulder Increasing Milepost
State Route	Medical Lake	902							7.10	EC76926	08/09/2022	19:10	Suspected Serious Injury	1	0	1	0	0	Passenger Car		Not at Intersection and Not Related	Clear	Dry	Daylight	Earth Bank or Ledge	Going Straight Ahead		West	East			Under Influence of Alcohol			Past Right Shoulder Decreasing Milepost
State Route	Medical Lake	902							10.84	ED74495	06/28/2023	05:35	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Driveway	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	East	South	East	West	Did Not Grant RW to Vehicle		None	Lane 1 Increasing Milepost

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Appendix D:

Summary LOS Worksheets

HCM 7th TWSC

1: Lefevre Street/N Lefevre Street & W Brooks Road/SR 902 — Existing PM Peak Hour

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	19	142	50	85	80	5	53	27	135	8	32	17
Future Vol, veh/h	19	142	50	85	80	5	53	27	135	8	32	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	154	54	92	87	5	58	29	147	9	35	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	209	0	0	512	500	182	485	524	90
Stage 1	-	-	-	-	-	-	223	223	-	274	274	-
Stage 2	-	-	-	-	-	-	289	277	-	210	250	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1502	-	-	1362	-	-	472	473	861	493	458	968
Stage 1	-	-	-	-	-	-	780	719	-	732	683	-
Stage 2	-	-	-	-	-	-	719	681	-	792	700	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1502	-	-	1362	-	-	391	432	861	350	418	968
Mov Cap-2 Maneuver	-	-	-	-	-	-	391	432	-	350	418	-
Stage 1	-	-	-	-	-	-	767	708	-	679	634	-
Stage 2	-	-	-	-	-	-	619	632	-	620	689	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.67	3.92	12.38	13.45
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	404	861	154	-	-	890	-	-	488
HCM Lane V/C Ratio	0.215	0.17	0.014	-	-	0.068	-	-	0.127
HCM Ctrl Dly (s/v)	16.3	10	7.4	0	-	7.8	0	-	13.5
HCM Lane LOS	C	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0.6	0	-	-	0.2	-	-	0.4

Intersection							
Int Delay, s/veh	1.4						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Vol, veh/h	46	239	156	57	18	14	
Future Vol, veh/h	46	239	156	57	18	14	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	160	0	-	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	50	260	170	62	20	15	
Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	232	0	-	0	529	170	
Stage 1	-	-	-	-	170	-	
Stage 2	-	-	-	-	360	-	
Critical Hdwy	4.12	-	-	-	6.42	6.22	
Critical Hdwy Stg 1	-	-	-	-	5.42	-	
Critical Hdwy Stg 2	-	-	-	-	5.42	-	
Follow-up Hdwy	2.218	-	-	-	3.518	3.318	
Pot Cap-1 Maneuver	1336	-	-	-	510	874	
Stage 1	-	-	-	-	860	-	
Stage 2	-	-	-	-	706	-	
Platoon blocked, %		-	-	-			
Mov Cap-1 Maneuver	1336	-	-	-	488	874	
Mov Cap-2 Maneuver	-	-	-	-	488	-	
Stage 1	-	-	-	-	823	-	
Stage 2	-	-	-	-	706	-	
Approach	EB		WB		SB		
HCM Ctrl Dly, s/v	1.26		0		11.32		
HCM LOS					B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1		
Capacity (veh/h)	291	-	-	-	605		
HCM Lane V/C Ratio	0.037	-	-	-	0.058		
HCM Ctrl Dly (s/v)	7.8	0	-	-	11.3		
HCM Lane LOS	A	A	-	-	B		
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2		

Intersection							
Int Delay, s/veh	3.3						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations							
Traffic Vol, veh/h	22	35	59	182	31	51	
Future Vol, veh/h	22	35	59	182	31	51	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	24	38	64	198	34	55	

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	62	0	369	43
Stage 1	-	-	-	-	43	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1541	-	631	1027
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1541	-	602	1027
Mov Cap-2 Maneuver	-	-	-	-	602	-
Stage 1	-	-	-	-	980	-
Stage 2	-	-	-	-	697	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.82	9.99
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	811	-	-	441	-
HCM Lane V/C Ratio	0.11	-	-	0.042	-
HCM Ctrl Dly (s/v)	10	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	48	278	255	81	36	19
Future Vol, veh/h	48	278	255	81	36	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	52	302	277	88	39	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	365	0	-	0	728	321
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	407	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1193	-	-	-	391	720
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	672	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1193	-	-	-	370	720
Mov Cap-2 Maneuver	-	-	-	-	370	-
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	672	-

Approach	EB	WB	SE
HCM Ctrl Dly, s/v	1.2	0	14.35
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	265	-	-	-	445
HCM Lane V/C Ratio	0.044	-	-	-	0.134
HCM Ctrl Dly (s/v)	8.2	0	-	-	14.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	25	190	70	135	115	5	80	35	195	10	45	20
Future Vol, veh/h	25	190	70	135	115	5	80	35	195	10	45	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	207	76	147	125	5	87	38	212	11	49	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	283	0	0	742	723	245	701	758	128
Stage 1	-	-	-	-	-	-	299	299	-	421	421	-
Stage 2	-	-	-	-	-	-	443	424	-	280	337	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1280	-	-	332	353	794	353	336	922
Stage 1	-	-	-	-	-	-	710	666	-	610	589	-
Stage 2	-	-	-	-	-	-	594	587	-	727	641	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1280	-	-	236	302	794	198	288	922
Mov Cap-2 Maneuver	-	-	-	-	-	-	236	302	-	198	288	-
Stage 1	-	-	-	-	-	-	694	651	-	535	516	-
Stage 2	-	-	-	-	-	-	460	514	-	490	627	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.66	4.33	19.04	19.55
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	253	794	150	-	-	945	-	-	328
HCM Lane V/C Ratio	0.494	0.267	0.019	-	-	0.115	-	-	0.248
HCM Ctrl Dly (s/v)	32.4	11.2	7.5	0	-	8.2	0	-	19.6
HCM Lane LOS	D	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.5	1.1	0.1	-	-	0.4	-	-	1

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	75	320	225	95	35	30
Future Vol, veh/h	75	320	225	95	35	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	160	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	348	245	103	38	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	348	0	-	0	755	245
Stage 1	-	-	-	-	245	-
Stage 2	-	-	-	-	511	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1211	-	-	-	376	794
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	602	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1211	-	-	-	345	794
Mov Cap-2 Maneuver	-	-	-	-	345	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	602	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.55	0	14.09
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	342	-	-	-	467
HCM Lane V/C Ratio	0.067	-	-	-	0.151
HCM Ctrl Dly (s/v)	8.2	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

Intersection							
Int Delay, s/veh	3.7						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations							
Traffic Vol, veh/h	270	85	140	275	45	75	
Future Vol, veh/h	270	85	140	275	45	75	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	293	92	152	299	49	82	

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	386	0	943	340
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1173	-	291	703
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1173	-	246	703
Mov Cap-2 Maneuver	-	-	-	-	246	-
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	461	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.88	17.63
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	414	-	-	607	-
HCM Lane V/C Ratio	0.315	-	-	0.13	-
HCM Ctrl Dly (s/v)	17.6	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.4	-

Intersection							
Int Delay, s/veh	2.9						
Movement	EBL	EBT	WBT	WBR	SEL	SER	
Lane Configurations							
Traffic Vol, veh/h	70	400	405	135	65	30	
Future Vol, veh/h	70	400	405	135	65	30	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	76	435	440	147	71	33	

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	587	0	-	0	1101	514
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	587	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	988	-	-	-	235	561
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	556	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	988	-	-	-	211	561
Mov Cap-2 Maneuver	-	-	-	-	211	-
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	556	-

Approach	EB	WB	SE
HCM Ctrl Dly, s/v	1.33	0	27.32
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	268	-	-	-	263
HCM Lane V/C Ratio	0.077	-	-	-	0.393
HCM Ctrl Dly (s/v)	8.9	0	-	-	27.3
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	1.8

HCM 7th TWSC

1: Lefevre Street/N Lefevre Street & W Brooks Road/SR 902 — Full Build PM Peak Hour

Intersection	
Int Delay, s/veh	25.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	25	205	80	250	130	10	80	40	285	15	55	20
Future Vol, veh/h	25	205	80	250	130	10	80	40	285	15	55	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	150	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	223	87	272	141	11	87	43	310	16	60	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	152	0	0	310	0	0	1035	1016	266	989	1054	147
Stage 1	-	-	-	-	-	-	321	321	-	690	690	-
Stage 2	-	-	-	-	-	-	715	696	-	299	364	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1429	-	-	1251	-	-	210	238	772	226	226	900
Stage 1	-	-	-	-	-	-	691	652	-	435	446	-
Stage 2	-	-	-	-	-	-	422	443	-	710	624	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1251	-	-	108	177	772	81	168	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	108	177	-	81	168	-
Stage 1	-	-	-	-	-	-	675	637	-	332	340	-
Stage 2	-	-	-	-	-	-	259	338	-	387	609	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.61	5.56	57.18	52.42
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	124	772	137	-	-	1138	-	-	168
HCM Lane V/C Ratio	1.05	0.401	0.019	-	-	0.217	-	-	0.581
HCM Ctrl Dly (s/v)	162.7	12.7	7.6	0	-	8.7	0	-	52.4
HCM Lane LOS	F	B	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	7.4	1.9	0.1	-	-	0.8	-	-	3.1

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	440	345	140	55	45
Future Vol, veh/h	65	440	345	140	55	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	160	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	478	375	152	60	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	527	0	-	0	995	375
Stage 1	-	-	-	-	375	-
Stage 2	-	-	-	-	620	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1040	-	-	-	272	671
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	537	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1040	-	-	-	246	671
Mov Cap-2 Maneuver	-	-	-	-	246	-
Stage 1	-	-	-	-	631	-
Stage 2	-	-	-	-	537	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.12	0	20.19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	232	-	-	-	345
HCM Lane V/C Ratio	0.068	-	-	-	0.315
HCM Ctrl Dly (s/v)	8.7	0	-	-	20.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.3

Intersection							
Int Delay, s/veh	16.3						
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations							
Traffic Vol, veh/h	380	115	250	425	65	105	
Future Vol, veh/h	380	115	250	425	65	105	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	413	125	272	462	71	114	

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	538	0	1481	476
Stage 1	-	-	-	-	476	-
Stage 2	-	-	-	-	1005	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1030	-	138	589
Stage 1	-	-	-	-	625	-
Stage 2	-	-	-	-	354	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1030	-	89	589
Mov Cap-2 Maneuver	-	-	-	-	89	-
Stage 1	-	-	-	-	625	-
Stage 2	-	-	-	-	228	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.61	113.77
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	187	-	-	667	-
HCM Lane V/C Ratio	0.987	-	-	0.264	-
HCM Ctrl Dly (s/v)	113.8	-	-	9.7	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	8.2	-	-	1.1	-

Intersection							
Int Delay, s/veh	33.7						
Movement	EBL	EBT	WBT	WBR	SEL	SER	
Lane Configurations							
Traffic Vol, veh/h	105	515	630	200	110	65	
Future Vol, veh/h	105	515	630	200	110	65	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-	None	-	None	
Storage Length	-	-	-	-	0	-	
Veh in Median Storage, #	-	0	0	-	0	-	
Grade, %	-	0	0	-	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	114	560	685	217	120	71	

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	902	0	-	0	1582	793
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	788	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	753	-	-	-	120	388
Stage 1	-	-	-	-	445	-
Stage 2	-	-	-	-	448	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	753	-	-	-	~ 93	388
Mov Cap-2 Maneuver	-	-	-	-	~ 93	-
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	448	-

Approach	EB	WB	SE
HCM Ctrl Dly, s/v	1.8	0	$ 306.75
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	305	-	-	-	130
HCM Lane V/C Ratio	0.151	-	-	-	1.462
HCM Ctrl Dly (s/v)	10.6	0	-	-	$ 306.7
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	13

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s		
+: Computation Not Defined	*: All major volume in platoon		