



KEY FINDINGS FROM EVALUATING SEASONAL INFLUENCES IN TRAFFIC

City Council
September 26, 2023



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WHAT TRANSPORTATION CAN BE.

AGENDA

- Purpose / Overview of Study
- Seasonal Changes in Traffic
- Woodin Avenue Bridge Analysis
- Level of Service Policies
- Questions / Discussion



PURPOSE/ OVERVIEW

PURPOSE / APPROACH

*To Consider Seasonal Influences of Traffic
in the Downtown and
Review Citywide Level of Service Policies*

Study Focused on Three Primary Tasks

1. Woodin Avenue Bridge Circulation Analysis
2. Seasonal Factors in Traffic
3. Level of Service (LOS) Policy Analysis & Options



ISSUES IMPACTING TRAVEL IN CHELAN

- Significant tourism with peak vehicle traffic volumes in the summer
- How changes to Woodin Avenue Bridge cross-section have changed travel through downtown
- Local & regional development impacts to multimodal transportation system
- Understanding magnitude of seasonal influences
- Options for accounting for seasonal differences in traffic in development review and level of service policies
- Balancing economic development, tourism, and mobility



STUDY PROCESS

Steps to completing the analysis
Presented in the following order:

Task 2



**Evaluating
Seasonal Changes
in Traffic**

Task 1



**Woodin Avenue
Bridge Analysis**

Task 3



**Level of Service
Policy Review**



SEASONAL FACTORS

SEASONAL FACTORS IN TRAFFIC

What are Seasonal Factors?

- Seasonal factors refer to variations in traffic patterns that occur at specific times of the year. The variations are often predictable and can be influenced by a variety of factors, including weather, holidays, school schedules, tourism, and other reoccurring events.

Why Are they Important to Understand?

- They can have a significant impact on traffic congestion, safety, transportation system planning, and maintenance and operations.



SEASONAL FACTORS – DATA ACQUISITION



Data Locations

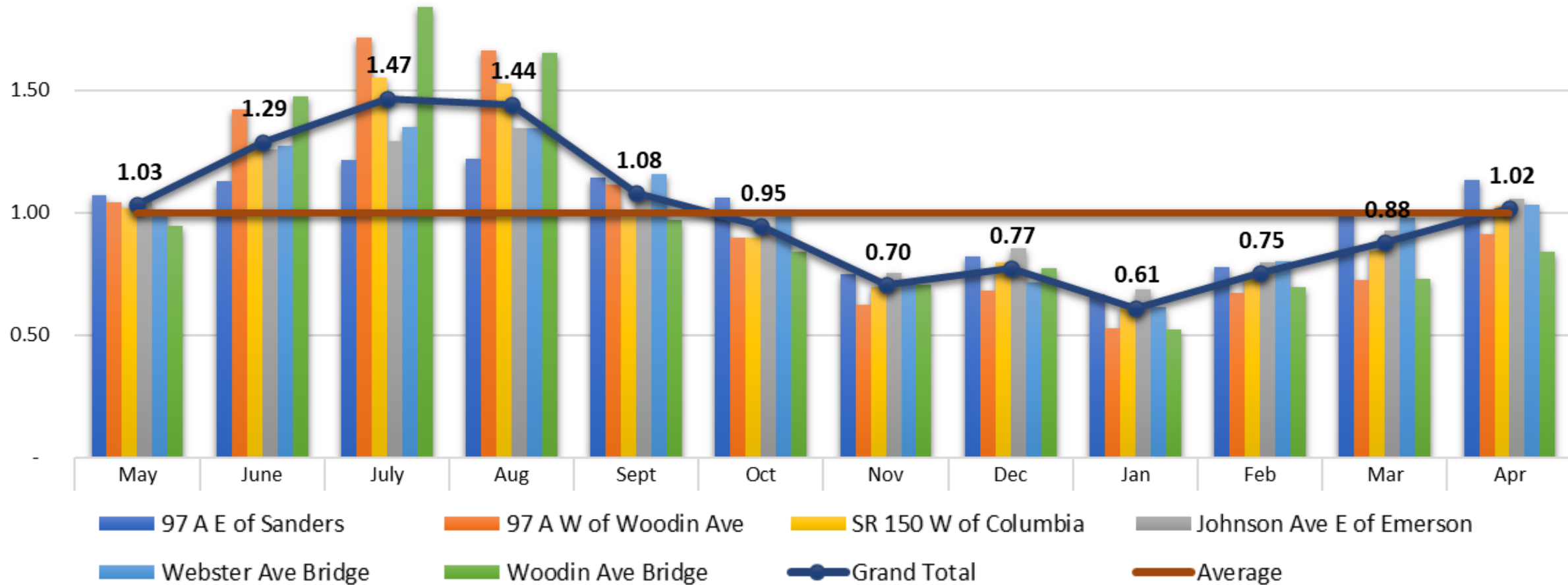
DATA OVERVIEW

- Worked with Chelan-Douglas Transportation Council to analyze traffic data around the downtown
- Data based on third party provider that utilizes GPS data from vehicles, and mobile devices, along with demographic, land use and other relevant data sources.



SEASONAL FACTOR – SUMMARY OF RESULTS

Monthly Factors of Average Annual PM Peak Traffic – Weekday by Month



CONCLUSION

Seasonal factors can be applied in one or more of the following situations:

- Development review process
- Proportionate share mitigation determination
- Capital planning and budgeting
- Updating level of service policies
- Shared with other agencies / partners



WOODIN AVENUE BRIDGE ANALYSIS

WOODIN AVENUE BRIDGE TRAFFIC ANALYSIS

PURPOSE:

To estimate the level of traffic that would be expected to utilize the Woodin Avenue Bridge if it were opened to two-way directional vehicle traffic, and the potential impacts/benefits to traffic in the downtown area



WOODIN AVENUE BRIDGE TRAFFIC ANALYSIS

Analysis Accounted for:

- Traffic operational benefits or impacts of one-way versus two-way operations in the immediate vicinity of the bridge
- Used intersection level of service (LOS) and average vehicle delay measures as comparison criteria

** Other impacts or considerations in changing the bridge back to two-way operations have not been included in the scope of work (i.e. costs, impacts to ped/bikes, etc.)*



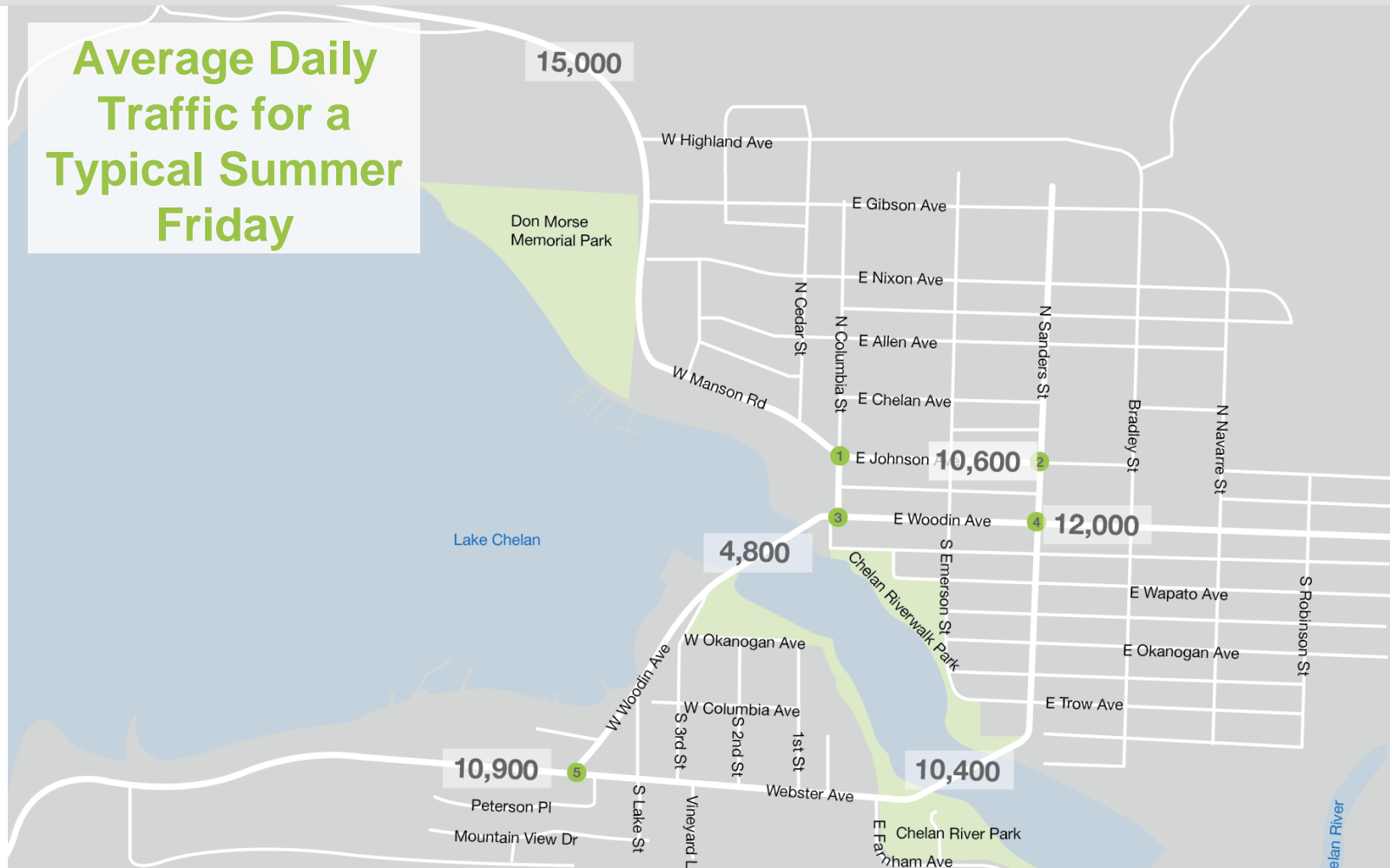
WOODIN AVENUE BRIDGE STUDY AREA

Study Area and Key Intersections



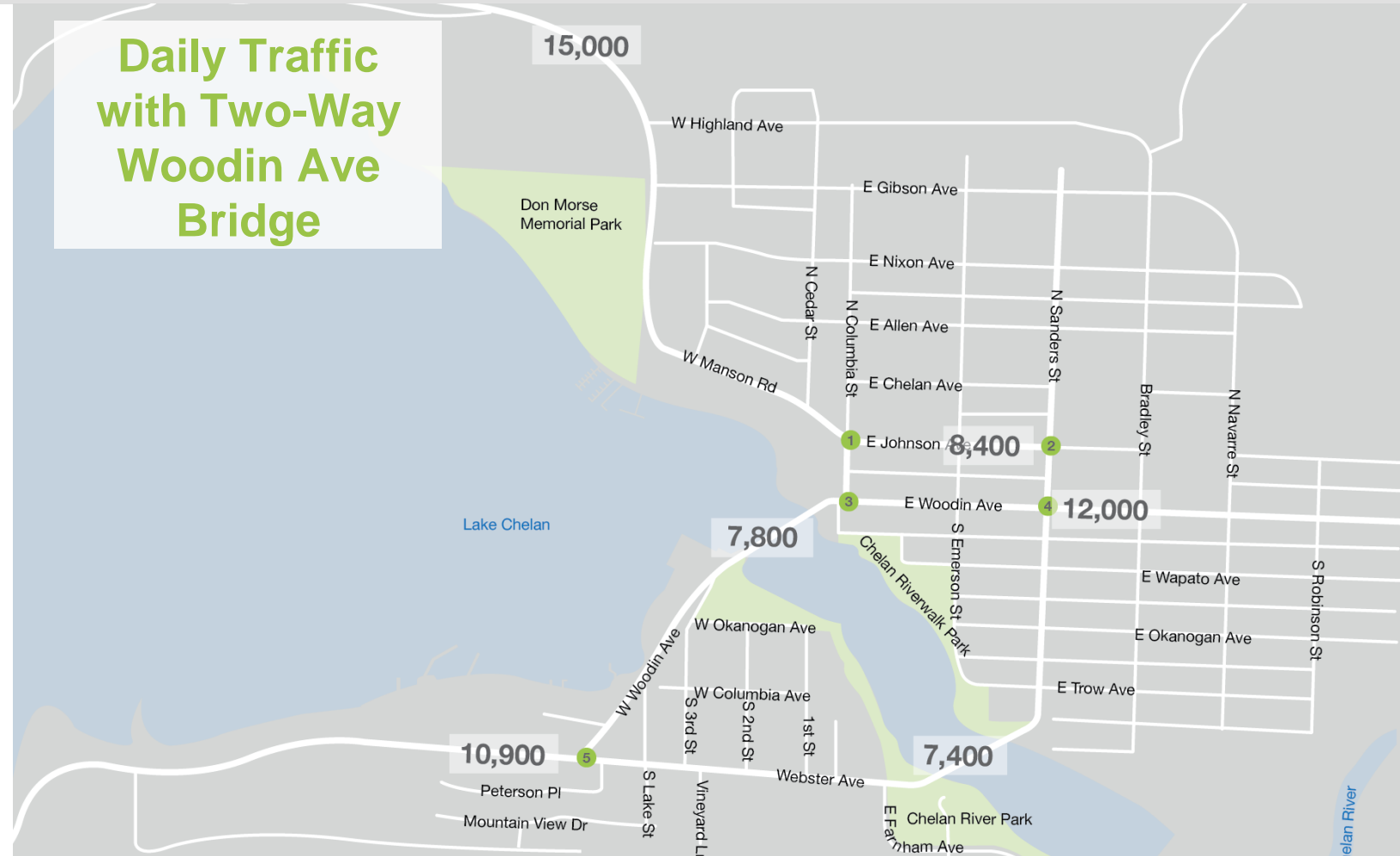
DAILY TRAFFIC – EXISTING ONE-WAY BRIDGE OPERATIONS

- Woodin Avenue Bridge serves approx. 4,800 vehicles a day
- Dan Gordon Bridge services approx. 10,400 vehicles a day



DAILY TRAFFIC – TWO-WAY BRIDGE OPERATIONS

- Traffic estimated to be more evenly split between the two bridges with two-way operations
- Does not account for potential changes from future travel demand



COMPARISON OF INTERSECTION LOS

Intersection Level of Service Comparison

- Change in bridge operations expected to have little impact on overall intersection LOS and average vehicle delay
- Some individual movements may improve, at Columbia/Johnson or Woodin/Webster

INTERSECTION	2023 ONE-WAY BRIDGE			2023 TWO-WAY BRIDGE		
	LOS	DELAY	WM	LOS	DELAY	WM
<i>Summer Friday PM Peak Hour</i>						
Columbia St/Johnson Ave	B	14		B	13	
Saunders St/Johnson Ave	B	14		B	13	
Columbia St/Woodin Ave	B	14		C	20	
Saunders St/Woodin Ave	C	23		C	21	
Woodin Ave/Webster Ave	B	14	SB	B	11	SB



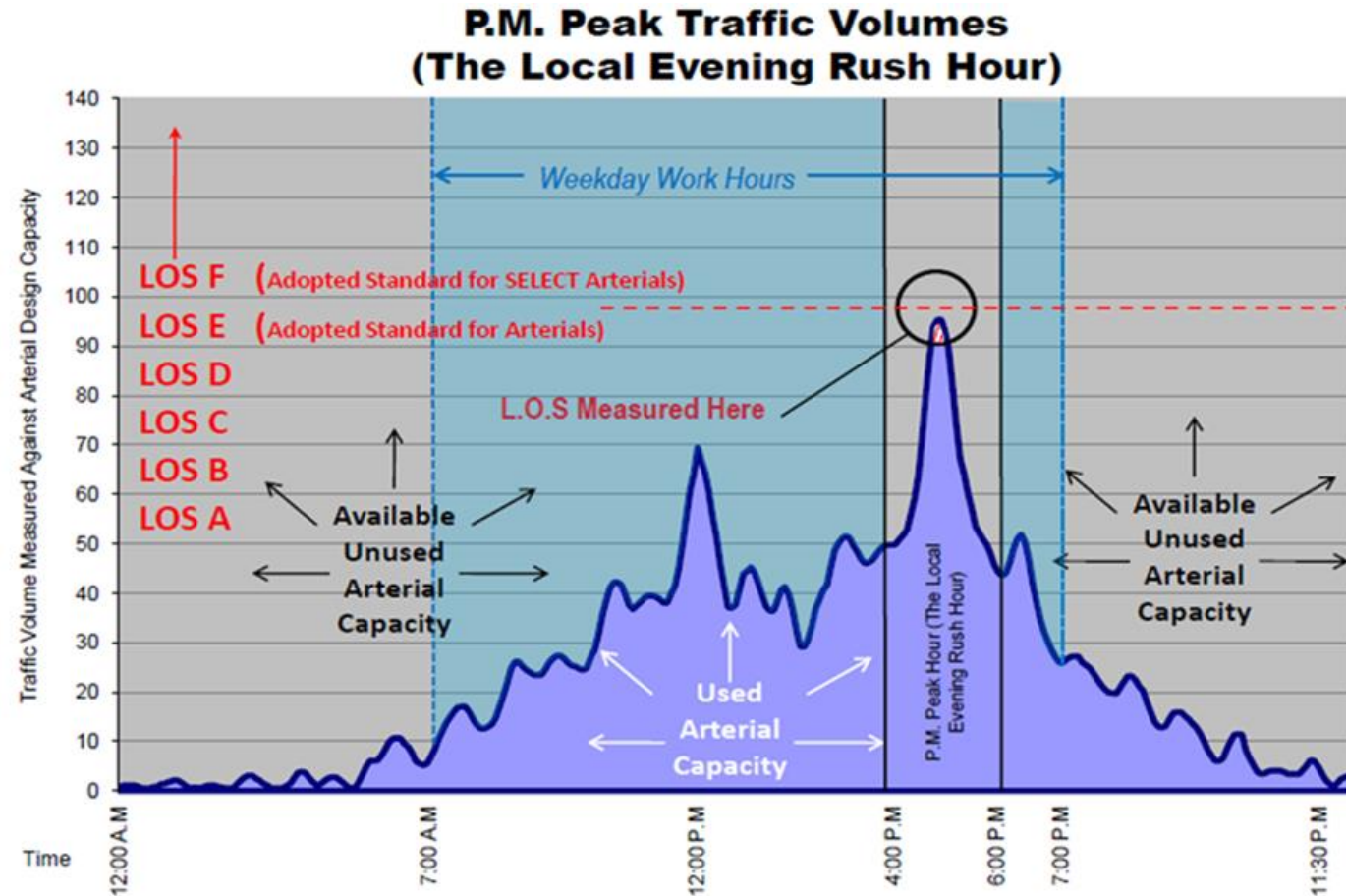
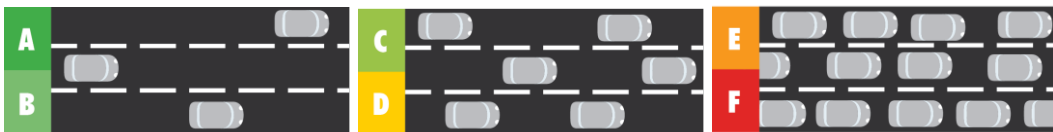
LEVEL OF SERVICE POLICY REVIEW

WHAT ARE LOS STANDARDS?

Traditionally, vehicular LOS only

- Qualitative measures of operations (A – F) such as congestion, seconds of delay, travel times, etc.
- Measured weekday PM 'peak hour' (4-6pm)

Typical Vehicle LOS

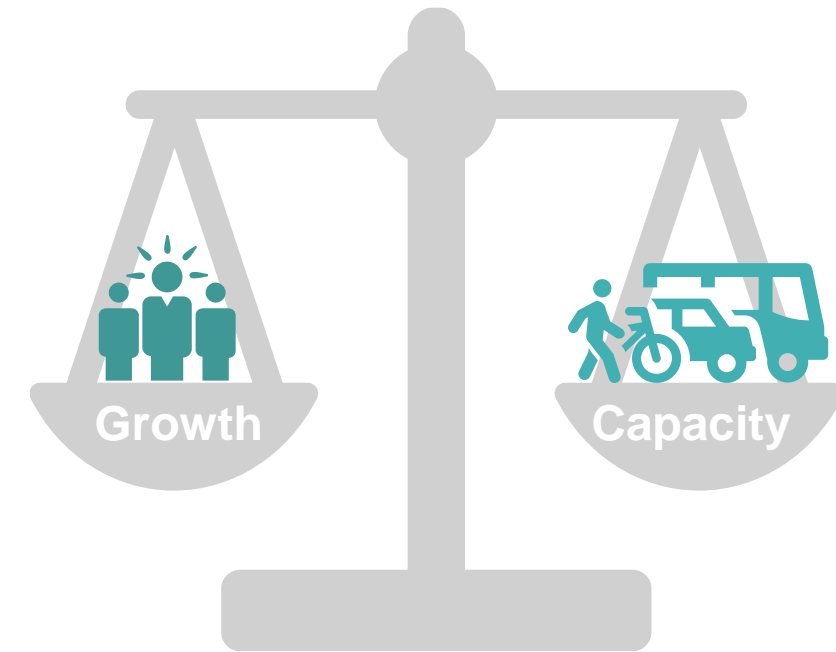


WHAT DOES STATE LAW REQUIRE?

Growth Management Act (GMA) now requires adoption of multimodal LOS in Comp Plan

- Identify transportation improvements & funds to maintain LOS, while allowing growth
- Transportation Concurrency: If LOS can't be maintained, then no development permits
- Reassessment Strategy: Choices = More funding; Less growth; Change/lower LOS

Agencies must find the right BALANCE to achieve their goals and priorities



**Balancing Goals
and Policies**



LOS POLICY – KEY FINDINGS

- City, County, Regional, and State policies and regulations influence LOS standards
- Significant tourism with peak vehicle traffic volumes in the summer months
- Several options for accounting for seasonal differences in vehicle traffic impacts & LOS

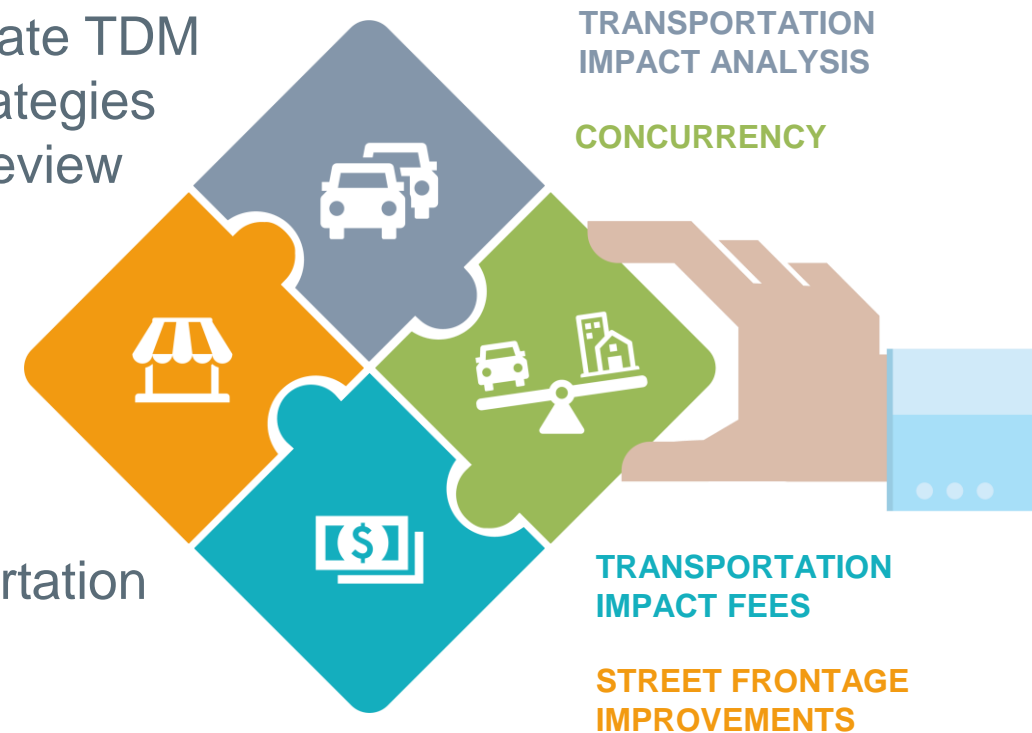


LOS POLICY – KEY FINDINGS

Options the City can Consider to Address Seasonal Influences

- A. Do not utilize summer seasonal adjustment factors
- B. Utilize summer seasonal adjustment factor to account for peak summer season
- C. Change LOS standard at select locations impacted by seasonal fluctuations
- D. Apply seasonal adjustment factor to transportation development regulations

- E. Develop and integrate TDM and multimodal strategies into development review
- F. Develop and adopt multimodal LOS standards (now required)
- G. Develop and adopt multimodal transportation impact fees



QUESTIONS & COMMENTS



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