



**CITY OF KIRKLAND**  
**Department of Public Works**  
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**MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Julie Underwood, Director of Public Works  
Joel Pfundt, Transportation Manager  
Blair Daly, Transportation Program Coordinator

**Date:** April 6, 2023

**Subject:** TRANSPORTATION MASTER PLAN 2022 PROGRESS REPORT

**RECOMMENDATION:**

It is recommended that the City Council receive the Transportation Master Plan 2022 Progress Report, along with an update about transportation concurrency and tracking the Capital Improvement Program's investment in different transportation modes.

**BACKGROUND DISCUSSION:**

The City Council adopted the [Transportation Master Plan](#) (TMP) in November 2015. Chapter 9 of the TMP, titled "Transportation Measurement," states, "Progress toward the goals of this plan should be reported annually to the City Council and Transportation Commission." Policy T-8.2 in Chapter 9 guides the City to "Establish an acceptable level of service for all modes." It goes on to say that the reporting should track a handful of measures over time that are easy to understand for a wide range of audiences. Page 101 of the TMP identifies a series of level of service (LOS) measures to be used in annual reporting.

The TMP 2022 Progress Report (see Attachment A) is the fourth such report, with the Council having received reports for 2018, 2019, and 2021. There was no 2020 report because of a lack of staff resources during the height of the pandemic.

The first two pages of the three-page TMP 2022 Progress Report contain six infographic sections with between one and three topics per section. The first five sections are ordered consistent with the five priority areas established in the TMP: safety, walking, biking, transit, and driving. A sixth section highlights key ongoing transportation projects. Each topic in the infographic corresponds to a "level of completion area" listed in the LOS table in Policy T-8.2 (page 101).

For certain level of completion areas identified in the LOS table, it was challenging to produce a progress monitoring metric that would be meaningful, easy to understand, and feasible for staff to measure. To address that, staff identified metrics that are replicable and straightforward to update on an annual basis.

Annual TMP Progress Reports intend to offer transparency about the progress being made toward completing 20-year LOS objectives set in 2015. Page 3 of the report provides a year-over-year overview of the rates of completion. The data in the infographic are a snapshot of what the City has accomplished by the end of each calendar year. The report does not include projects or activities that have been completed thus far in the current/publication year or that are anticipated to be completed in the current year.

Below is a selection of noteworthy items in the 2022 report.

### **Safety**

There were zero fatalities on Kirkland's streets in 2022, the first year that has occurred since 2013. Whereas the 2019 and 2021 reports showed an upward trajectory in the rates of serious injuries and fatalities, the 2022 report shows a leveling out of the rates. While this is not yet the downward trajectory the City is striving for, it does show improvement.

In 2015, Kirkland set a goal to achieve zero fatalities and serious injuries on our streets by 2035. Ongoing City initiatives to improve safety on our roads include the Neighborhood Safety Program, Vision Zero Action Plan, Active Transportation Plan, and Safer Routes to School Action Plans.

### **Walk**

Pertaining to improving the nighttime illumination of crosswalks, progress stalled in 2022 because of challenges working with PSE and the fact that remaining crosswalk locations are more challenging to implement. Like the 2021 report, the 2022 report shows that 54% of the crosswalks in the TMP that were slated for lighting upgrades had received upgrades. Staff will continue working with PSE to complete more crosswalk lighting upgrades.

The other items under the Walk section of the infographic—those pertaining to school walk routes and ten-minute neighborhood walk routes—are near 100% completion, as they have been for several years. The goals related to those metrics are expected to be modified or replaced in the TMP update.

### **Transit**

The proportion of Kirkland's 30 highest ridership bus stops that have a bus shelter is one of the metrics under the transit section. The 2022 figure of 93% is the highest since staff began producing annual TMP progress reports in 2018. King County's construction of shelters at unsheltered bus stops is ongoing, with a new one expected in 2023 at the southbound stop at 116<sup>th</sup> Avenue NE/NE 124<sup>th</sup> Street.

### **Drive**

A TMP goal that the City likely will achieve well before 2035 pertains to signalized intersections. At the end of 2022, 90% were fully updated to the City's standard for equipment and connectivity to the Transportation Management Center.

The Pavement Condition Index of 73 is down slightly from 75 in 2021. While this is still above the Council-designated target of 70, the overall PCI trend is headed in a direction that requires attention. Please note, the Streets and Grounds and CIP Divisions will be initiating a Streets 10-year Strategic Plan later in 2023.

Many City initiatives that are underway now will have outcomes that will contribute directly to increasing the rates of completion of TMP goals. Such plans and programs include:

*Active Transportation Plan;*  
*Safer Routes to School Action Plans;*  
*Transit Implementation Plan;*  
*Intelligent Transportation Systems Plan;*  
Capital Improvement Program;  
Neighborhood Safety Program;  
Neighborhood Traffic Control Program; and  
*Vision Zero Action Plan.*

Along with the Streets and Pedestrian Safety Levy Report, the TMP Progress Report is one of multiple tools the City uses to monitor performance.

The Transportation Master Plan update, expected to be completed in 2024, will involve refining and updating the goals and performance measures of the TMP. The exercise of producing this annual TMP Progress Report since 2018 has generated ideas for such revisions.

Staff presented the TMP 2022 Progress Report to the Transportation Commission at its meeting on March 22, 2023.

### **Tracking CIP Investment by Transportation Mode**

The 2015 TMP included a 20-year Project Table (page 78-81) which contains a summarized list of planned transportation investments, and divides projects and funding into the following six "modes":

1. Safety
2. Maintenance
3. Walk
4. Bike
5. Transit
6. Auto

To help ensure that the City's transportation investments are consistent with the priorities put forth in the 2015 TMP, staff regularly monitors the percent of investment in capital projects by mode and compares that to the percent investment by mode reflected in the 20-Year Project Tables. A comparison of the modal percent allocation of investment from the TMP (column 1), the dollars spent between 2016 and 2022 (column 2), and planned investment included in the adopted 2023-2028 CIP (column 3) is provided (see Attachment B, "Tracking CIP Investment by Transportation Mode").

The percentages are calculated and shown with and without the Maintenance and Other modal categories. The Maintenance category is removed because, although Maintenance is funded at levels consistent with the TMP, the overall growth in the size of the CIP has resulted in it looking like the City is underinvesting in Maintenance, which is not the case. The Other category has been removed because it is a relatively small amount of funding that mainly goes to administrative items, such as funding to support coordination of regional transportation projects.

Overall, this analysis shows that the City's investments in safety, biking, and transit are consistent with the funding priorities identified in the 2015 TMP. The City is investing significantly more than was planned in 2015 in the walking mode. This can be explained in part by the decision of the City Council to accelerate the design and construction of projects from the *Safer Routes to School Action Plans* by implementing the City's Transportation Benefit District. The analysis shows that the City is investing less than planned, as a percentage, in the auto mode.

### Transportation Concurrency

The main function of concurrency is to ensure that the impacts of ongoing land use growth are balanced with the implementation of transportation projects and programs. If growth is far outpacing the rate at which transportation improvements are constructed, then permits for new developments can be halted. Such a moratorium represents a failure of the system. Ideally, concurrency is managed so that development continues.

The City's transportation concurrency system is multimodal, where all kinds of projects that add people-moving capacity are considered to provide mobility. It was also developed to be easy to implement and monitor.

The City tracks the number of person trips (or person-moving trips) of capacity being supplied by the City's investment in transportation projects. The demand for person trips is then allocated to development projects as they submit and get approval for transportation concurrency. As long as there is a surplus of person trips of capacity available for new development, this indicates that the City is building/funding projects concurrent with development.

The person trip capacity being supplied by transportation projects was updated based on the adopted 2023-2028 Capital Improvement Program as well as recently completed projects. Table 1, below, shows the total updated supply.

**Table 1: Person Trip Supply PROVIDED by Transportation Projects**

Person Trip Supply	Transportation Projects
4,404	Completed
6,333	Ongoing
7,399	New Project/Additional Scope
18,136	<b>Total Updated Supply</b>

Person trip demand allocated to development also was updated through the end of 2022. Table 2, below, shows the total updated demand.

**Table 2: Person Trip Demand ALLOCATED to Development Projects**

Person Trip Demand	Developments
3,869	2016-2021
1,122	2022
4,991	<b>Total Updated Demand</b>

Based on these results, the City is meeting its transportation concurrency level of service because there is a 13,145 person trip surplus that has not been allocated to development ( $18,136 - 4,991 = 13,145$ ).

This information was presented to the Transportation Commission at its meeting on March 22, 2023.

**NEXT STEPS:**

The TMP Progress Report will be posted on the [Transportation Master Plan webpage](#) on the City's website. Also, the City's Communications Program Manager will utilize the infographic for a piece in the weekly e-mail newsletter and posts on social media. Staff also will continue to track CIP investment by mode and transportation concurrency and report out on an annual basis.

Finally, the City is in the process of updating the Transportation Master Plan. Future TMP Progress Reports will be updated to reflect changes and revisions adopted in the plan; staff anticipates the new report to be presented in the 2025 timeframe.

Attachment A: Transportation Master Plan 2022 Progress Report

Attachment B: Tracking CIP Investment by Transportation Mode



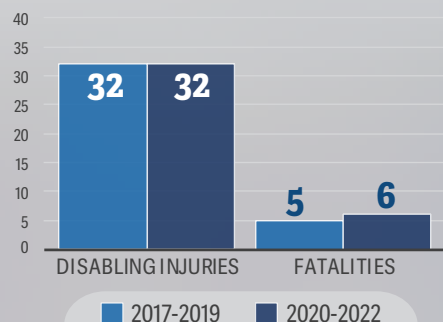
Monitoring progress toward transportation goals for 2015-2035 (TMP p. 101)

# Kirkland Transportation Master Plan 2022 Progress Report



## SAFETY

### COLLISION NUMBERS



### COLLISION RATES



## WALK

### SCHOOL WALK ROUTES (SWR)

**99%** of SWRs network has sidewalk\*

**10 of 12** elementary school walk routes are **100%\***

> Sandburg 97%, Twain 93%



\*refers to arterials and collector streets, with sidewalk on at least one side of the street

### CROSSWALKS

**54%** of 71 light deficient crosswalks now have sufficient lighting.



**TEN MINUTE NEIGHBORHOODS** **99.7%** of highest scoring 10 Minute Neighborhood walk routes has sidewalk\*

“

In 10 minute neighborhoods, residents can walk short distances from home to destinations that meet their daily needs. See the [City website](#) and [TMP p. 4](#) for an explanation of which areas citywide score highest for the 10 minute neighborhood concept.



## BIKE

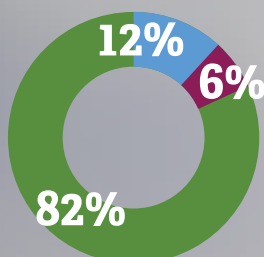
### BIKE LANES NETWORK

> **47 of 58 miles** = **81%** of planned bike lane network complete

> **6 of 33 miles** = **18%** of planned greenways network complete or in design



### NEIGHBORHOOD GREENWAYS NETWORK



■ COMPLETE ■ IN DESIGN ■ PLANNED

“

Neighborhood Greenways are residential streets generally off of main arterials with lower car volumes and speeds where people walking and rolling are given priority.





Monitoring progress toward transportation goals for 2015-2035 (TMP p. 101)

# Kirkland Transportation Master Plan 2022 Progress Report

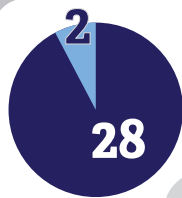


## TRANSIT

### SPEED AND RELIABILITY

**11 projects** slated for completion between 2020 and 2035 contained in the **Transit Implementation Plan**

- I-405 STRIDE Bus Rapid Transit coming 2027 (Sound Transit)
- RapidRide K-Line coming 2030 (King County Metro)



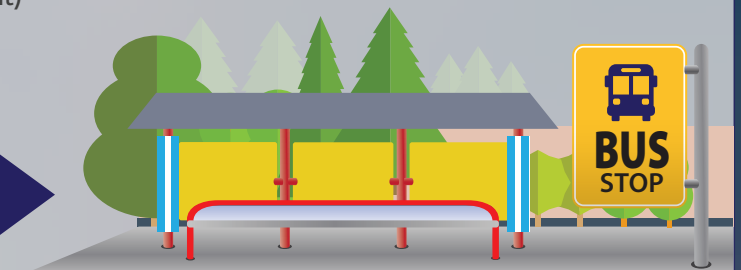
**93%** of Kirkland's 30 highest ridership bus stops have shelters

■ SHELTER ■ NO SHELTER

### PASSENGER ENVIRONMENT

**Next stop receiving a shelter (expected 2023):**

- 116th Ave NE & NE 124th St (southbound)

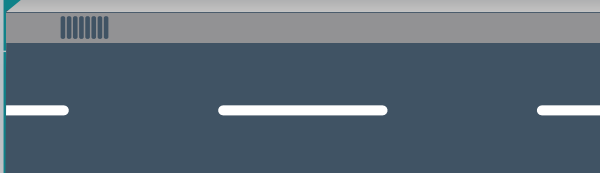


## DRIVE

### PAVEMENT CONDITION INDEX

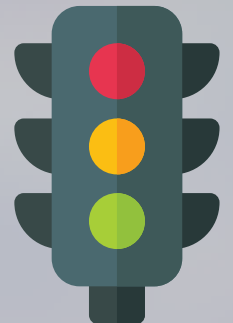
Condition of overall pavement network:

**73** (target = 70, max = 100)



















### INTELLIGENT TRANSPORTATION SYSTEM (ITS)

**90%** 56 of 62 City of Kirkland operated signalized intersections are fully updated to City's standard for both equipment and connectivity to Transportation Management Center



## KEY TRANSPORTATION PROJECTS

45 City transportation projects are underway. Examples:

- |   |   |
|---|---|
|   <b>1.</b> Totem Lake Connector Pedestrian/Bicycle Bridge  |    <b>4.</b> Juanita Drive Improvements  |
|     <b>2.</b> 100th Ave. NE Multimodal Improvements |   <b>5.</b> NE 132nd Street Intersection Improvements   |
|  <b>3.</b> Lake St. & Kirkland Ave. Pedestrian Scramble  |     <b>6.</b> I-405 & NE 132nd Street Interchange Project |





# Kirkland Transportation Master Plan

## 2022 Progress Report



## TRACKING PROGRESS YEAR OVER YEAR

	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>SAFETY</b>									
Population (WA OFM)	82,590	83,460	84,680	86,080	87,240	88,940	90,660	92,110	93,570
Disabling Injuries	7	10	11	10	10	12	13	10	9
Fatalities	2	1	1	1	1	3	2	4	0
Disabling Injuries Rate (per 10,000 pop.)	0.9	1.2	1.3	1.2	1.2	1.3	1.4	1.1	1.0
Fatalities Rate (per 10,000 pop.)	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.4	0.0

	2018	2019	2020	2021	2022	2023	2024	...	2035
<b>WALK</b>									
Sidewalk on School Walk Routes	96%	98%	-	99%	99%				
Sidewalk on Ten Minute Neighborhood Routes	99.7%	99.7%	-	99.7%	99.7%				
Crosswalks Lighting	16%	35%	-	54%	54%				
<b>BIKE</b>									
Bike Lanes Network	69%	74%	-	79%	81%				
Neighborhood Greenways Network	12%	12%	-	18%	18%				
<b>TRANSIT</b>									
Shelters at Bus Stops	90%	90%	-	80%	93%				
<b>DRIVE</b>									
Pavement Condition Index	76	75	-	75	73				
Intelligent Transportation System	66%	80%	-	87%	90%				

**Note:** 2018 was the first year the City published a Transportation Master Plan Progress Report. The 2018 report presented data on serious injuries and fatalities that went back to 2013. The City did not produce a **TMP Progress Report** for the year 2020.



# Attachment B: Tracking CIP Investment by Transportation Mode

Attachment B

Capital Improvement Program Investment Tracking								
	Adopted 2015							
		1		2			3	
Primary Mode*	TMP 20 Year Project "Orange" Table (millions \$)	TMP 20-Year Project List Target Percent by Mode	Dollars spent through 2022 by mode (millions \$)	Percent spent by mode through 2022	Spent through 2022 % - target % (2-1)	Revised 2023-2028 CIP - Adopted 12/13/2022	2023-2028 percent by mode	CIP - target (3-1)
walk	47.0	18%	35.7	28%	10%	46.8	34%	16.0%
safety	5.0	2%	3.1	2%	1%	5.1	4%	1.8%
bike	24.0	9%	23.8	19%	9%	18.0	13%	3.9%
transit	10.5	4%	2.8	2%	-2%	9.6	7%	3.0%
auto	53.5	20%	25.0	19%	-1%	19.0	14%	-6.6%
other	14.2	5%	2.0	2%	-4%	1.4	1%	-4.4%
maintenance	108.5	41%	35.8	28%	-13%	38.1	28%	-13.7%
	262.7	100%	128.3	100%	0%	138.1	100%	0.0%

Capital Improvement Program Investment Tracking (Without Other & Maintenance Categories)								
	Adopted 2015							
		1		2			3	
Primary Mode*	TMP 20 Year Project "Orange" Table (millions \$)	TMP 20-Year Project List Target Percent by Mode	Dollars spent through 2022 by mode (millions \$)	Percent spent by mode through 2022	Spent through 2022 % - target % (2-1)	Revised 2023-2028 CIP - Adopted 12/13/2022	2023-2028 percent by mode	CIP - target (3-1)
walk	47.0	34%	35.7	39%	6%	46.8	47%	13.9%
safety	5.0	4%	3.1	3%	0%	5.1	5%	1.6%
bike	24.0	17%	23.8	26%	9%	18.0	18%	1.2%
transit	10.5	8%	2.8	3%	-4%	9.6	10%	2.3%
auto	53.5	38%	25.0	28%	-11%	19.0	19%	-18.9%
	140.0	100%	90.5	100%	0%	98.6	100%	0.0%