2018 Concurrency Update

Transportation Commission Briefing September 27, 2018

Shuming Yan, PE, Transportation Engineering Manager Dave Tallent, Transportation Analyst

Why are we here

To brief the Commission about

- The new concurrency status
- How the concurrency tool will be used in development review

No action is requested of the Commission

Presentation Outline

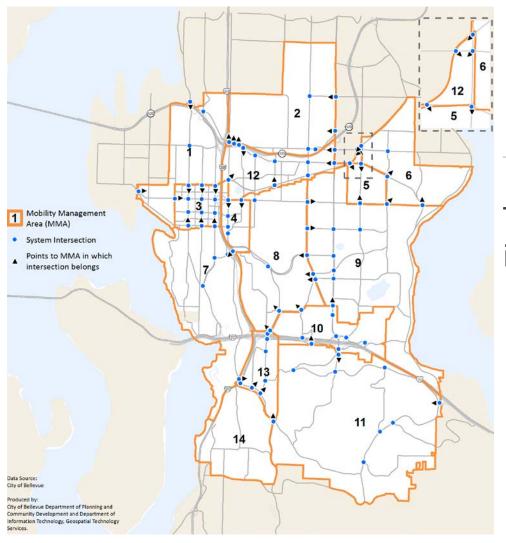
- Concurrency "101"
- Concurrency Standards
- Analysis Process
- Analysis Results
- Relationship to Development Review
- Discussion

What is a currency report?

An assessment of the performance of

- The existing roadway system
- When approved development and six-year Capital Investment Program (CIP) projects are in place.

It is performed to fulfill GMA requirement



What are the performance metrics?

Two metrics for intersections in each MMA:

- V/C ratio
- Congestion Allowance

What are the standards?

MMA		Concurrency Standard		
		V/C Ratio	Congestion Allowance	
1	North Bellevue	0.85	3	
2	Bridle Trails	0.80	4	
3	Downtown	0.95	9	
4	Wilburton	0.90	3	
5	Crossroads	0.90	2	
6	Northeast Bellevue	0.80	2	
7	South Bellevue	0.85	4	
8	Richards Valley	0.85	5	
9	East Bellevue	0.85	5	
10	Eastgate	0.90	4	
11	Southeast Bellevue	0.80	3	
12	BelRed/Northup	0.95	7	
13	Factoria	0.95	5	
14	Newport Hills*	-	-	

Methodology and Process

Tools:

- BKR Model
- LOS analysis tools developed in-house

Inputs:

- Existing transportation system
- Existing development
- Approved development
- Funded CIP projects

Analysis Period:

4:00 – 6:00 PM peak period on a typical weekday

Methodology Improvements

- Used the latest Highway Capacity Manual
- Refined the method for accounting pedestrian crossing
- Reflected signal timing improvements implemented in 2017
- Considered the impact of bottlenecks at several known locations
- Fixed a program bug in the V/C analysis program

Existing & approved developments

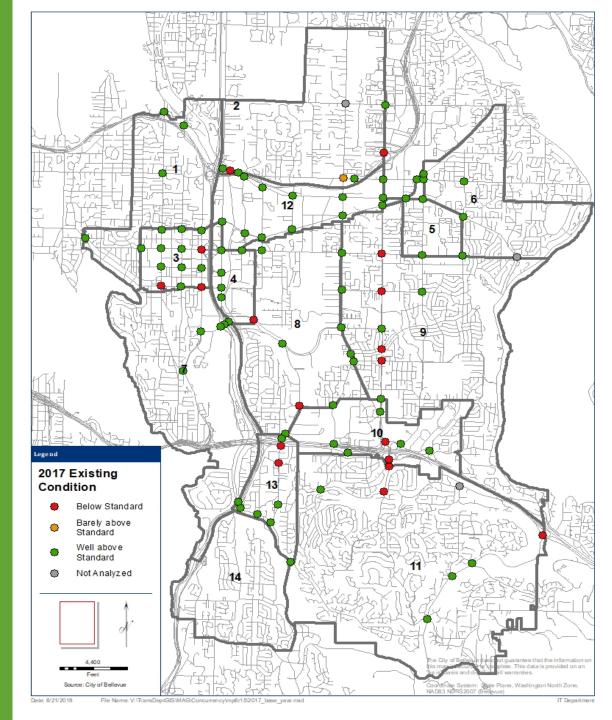
MMA	Name	Commercial (sqft)			Dwelling Units	
		Office	Retail	Others	MF Units	SF Units
1	North Bellevue	1,444,680	225,501	218,333	2,256	2,179
2	Bridle Trails	787,782	431,420	381,890	3,254	1,682
3	Downtown Bellevue	10,414,152	3,988,039	2,348,193	11,917	-
4	Wilburton	1,235,524	658,196	1,364,110	636	76
5	Crossroads	158,052	644,046	179,333	3,897	59
6	Northeast Bellevue	426,608	14,393	621,901	255	3,308
7	South Bellevue	1,210,925	251,247	1,188,067	2,009	2,613
8	Richards Valley	218,610	81,761	209,470	3,523	2,491
9	East Bellevue	556,252	461,864	1,320,660	2,543	6,801
10	Eastgate	4,034,738	503,834	1,846,308	801	237
11	Southeast Bellevue	140,261	126,804	754,846	1,017	8,406
12	Bel-Red/Northup	2,811,463	2,453,396	3,118,607	2,165	23
13	Factoria	1,467,633	856,218	316,028	1,219	381
14	Newport Hills	10,439	96,830	152,517	472	2,682
Total		24,917,119	10,793,549	14,020,263	35,964	30,938

Capacity Projects Included In the Analysis

- 124th Avenue NE Spring Boulevard to Ichigo Way (NE 18th Street)
- 124th Avenue NE NE 12th Street to NE Spring Boulevard
- 130th Avenue NE/NE 20th to NE BelRed Road
- NE Spring Boulevard (Zone 1) 116th Avenue NE to 120th Avenue NE
- NE Spring Boulevard (Zone 2)- 120th Avenue NE to 124th Avenue NE
- NE Spring Boulevard 130th Avenue NE to 132nd Avenue NE
- Bellevue Way/ 112th Ave SE "Y" to I-90
- Newport Way/150th Ave Intersection
- 124th Avenue NE/NE 8th to NE 12th Streets
- 124th Avenue NE/Ichigo Way (NE 18th St) to Northup Way
- I-90 Auxiliary Lanes
- East Link Light Rail

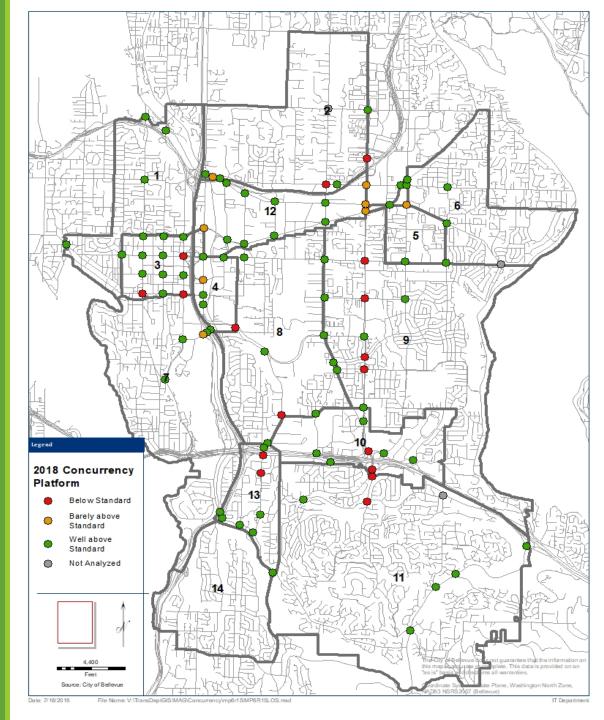
Analysis Results

2017 Existing Condition



Analysis Results

2023 With approved development and CIP projects



Findings

The existing roadway system meets the city's traffic standards

- All MMAs are within the average V/C ratios allowed by the concurrency standard
- All MMAs meet their congestion allowance

How is the "concurrency platform" used in development review?

It is used to test proposed development and answer:

- Does average V/C for each MMA meet the standard?
- Does the number of "failed" intersections exceed the congestion allowance?

The results inform our Development Services Department if development should be:

- Approved, or
- Approved with mitigations requirement, or
- Denied

Questions and Discussion

Thank You!

Shuming Yan, PE (425)452-7858 syan@bellevuewa.gov Dave Tallent, (425)452-6015 dtallent@bellevuewa.gov