### CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

	Discussion and Update on the 145 <sup>th</sup> Street Corridor Study Public Works Department
PRESENTED BY:	Kurt Seemann, Senior Transportation Planner
ACTION:	Nytasha Sowers, Transportation Planning Manager         Ordinance       Resolution       Motion         _X_ Discussion       Public Hearing

### PROBLEM/ISSUE STATEMENT:

The purpose of this agenda item is to provide Council with an update on the progress of the 145<sup>th</sup> Street Corridor Study (a project schedule is attached to this staff report as Attachment A). It is appropriate to provide an update now because the project team has refined the information previously shared with Council into four draft concepts (Attachment B). These include a "no action" concept (Study Concept 1) and three study concepts (Study Concepts 2-4). Staff will review the three study concepts, go over potential property impacts, and outline next steps in the process.

### **RESOURCE/FINANCIAL IMPACT:**

This study has a total budget of \$596,000, with revenues of \$246,000 from the U.S. Department of Transportation's Surface Transportation Program (STP) and the balance from the City of Shoreline Roads Capital Fund. There is no immediate financial impact associated with the continued design work on 145<sup>th</sup>.

### RECOMMENDATION

No formal action is required at this time. Staff would like Council's confirmation that the work accomplished to date is consistent with Council goals and objectives for this study.

### **INTRODUCTION**

The 145<sup>th</sup> Street corridor runs 3.2 miles from 3<sup>rd</sup> Avenue NW on the west to SR-522 (Lake City Way/Bothell Way) on the east side of the city and is the border between the City of Shoreline and the City of Seattle. 145<sup>th</sup> Street experiences significant traffic and safety issues and lacks a sidewalk system that complies with the Americans with Disabilities Act (ADA). Traffic volumes are anticipated to increase with regional growth and the future light rail station at 145<sup>th</sup> and I-5. Upgrades are needed to accommodate future development of the corridor as well as to improve safety for bicycles and pedestrians and to provide adequate speed and reliability for transit.

### BACKGROUND

The 145<sup>th</sup> Street Corridor Study began in early 2015 by defining project goals and evaluation criteria and analyzing existing conditions. Currently, City staff and CH2M, the City's consultant team, have developed study concepts that are meant to "bookend" the range of concepts that would improve how the corridor addresses pedestrian, bicycle, transit and vehicular mobility, while considering impacts to right-of-way and potential project costs.

Staff has engaged in ongoing robust community outreach, including holding an open house and conducting ongoing monthly meetings with a Citizens Advisory Task Force (CATF) as well as ongoing local agency coordination with the Inter-jurisdictional Technical Team (ITT).

### DISCUSSION

### **Design Elements**

The three current study concepts represent a range of design options that could be applied to the corridor. Each study concept is composed to two components, a roadway component (curb to curb) and a non-motorized component that includes sidewalks, bicycle facilities, and multi-use paths. These non-motorized elements could be "mixed and matched" between roadway concepts to arrive at a preferred design alternative for the corridor. All proposed study concepts show a typical mid-block section with the roadway and overall widths shown. The alternatives would typically be wider at the intersections to accommodate left, right, and U-turns.

For the purposes of this study, the corridor has been divided into three segments:

- 1) 3<sup>rd</sup> Avenue NW to Greenwood Avenue N,
- 2) Greenwood Avenue N to Aurora Avenue N, and
- 3) Aurora Avenue N to SR-522.

The most westerly segment from 3<sup>rd</sup> Avenue NW to Greenwood Avenue N is the shortest segment. The proposed study concepts are similar, and include two travel lanes and improvements to the non-motorized elements (for pedestrians and bikes). Generally, the study concepts proposed for this segment could be constructed within the existing right-of-way with minimal impacts to adjacent properties.

The existing corridor segment from Greenwood Avenue N to Aurora Avenue N is typically four lanes, 44 feet from curb to curb. The concepts proposed for study for this

portion of the corridor range from adding sidewalks to the construction of a five lane section.

The segment from Aurora Avenue N to SR-522 includes three distinct segments (Aurora to I-5, the I-5 interchange (on-ramps/off-ramps and interstate bridge), and I-5 to SR-522. These three segments within this larger segment have similar components and have been combined for simplification in this presentation. The interchange design requires that Shoreline work closely with the Washington State Department of Transportation (WSDOT) to identify constraints and opportunities. The three concepts for this section of the corridor range from a four lane section with sidewalks to a six lane concept that includes dedicated bus lanes.

### **Bicycle Facilities**

Bicycle facilities are proposed and shown in each of the non-motorized components of the concepts. As previously discussed, the non-motorized concepts could be "mixed and matched" with any of the proposed roadway sections. In addition, the City has been looking at using parallel bike corridors that could provide bike connectivity for 145<sup>th</sup> Street without actually using the 145<sup>th</sup> Corridor (Attachment C). This concept has generally received support as long as the route was direct. This approach could make use of existing local streets and could provide a safe route for bicycles while reducing right-of-way.

### **Potential Property Impacts**

For much of the corridor, the existing right-of way is 60 feet. Study Concept 2 generally keeps the roadway within the existing 60' corridor and provides sidewalks along the roadway. Intersections would typically be widened to accommodate turn lanes and therefore would require additional right of way. Other properties could potentially be impacted when differences in grades require retaining wall or driveways to be reconstructed.

As the study concepts (Study Concepts 3 and 4) add more lanes and more substantial non-motorized facilities, the potential property impacts are greater. Because of the number of buildings close to the existing right-of-way, any widening could affect a significant number of properties.

### **Next Steps**

Staff and the consultant team are currently evaluating each concept against the project objectives and criteria. Generally, each study option will be evaluated to see how well it benefits pedestrians, bicycles, transit, and vehicles. In addition, we will look at how consistent each concept is with existing plans, as well as evaluate the environmental benefits and potential impacts of each plan. Staff and the consultant team will look at potential tradeoffs, including potential property impacts, and overall project costs.

Finally, staff and the consultant team will develop a preferred alternative based on how well it addresses all the benefits while talking into consideration potential project tradeoffs. Once the preferred concept is selected, work could begin design and environmental work on the Aurora to I-5 portion of the corridor, as there is funding for the final design of this section.

### STAKEHOLDER OUTREACH

Stakeholder outreach includes an open house held in May and two additional open houses planned before the end of the year. Staff continues to have ongoing coordination with local agencies.

The first open house for the 145<sup>th</sup> Street Corridor Study was held on Wednesday, May 20, 2015. Attendees viewed materials that described the study process, discussed project goals, and shared thoughts about existing conditions along the corridor. The open house was very well attended, with approximately 150 people participating. A wide variety of citizens attended, from people who lived along the corridor to others from the community, including residents from both the City of Shoreline and the City of Seattle. Many views were shared, including strong support for improved pedestrian facilities, transit, and safe bicycle facilities either on the corridor or adjacent to it. Safety was mentioned as a prime concern. Also, residents were looking for improvements to vehicular mobility, including adding turn lanes at intersections and improving the I-5 interchange.

As well, the CATF continues to provide valuable input into the process. This elevenmember group consists of residents representing adjacent Shoreline neighborhoods (Briarcrest, Parkwood, Ridgecrest, and Westminster Triangle), Seattle neighborhoods (Broadview, Haller Lake, Olympic, and Pinehurst), a local business representative, a representative from the Lakeside School, and a representative from the North King County Mobility Coalition.

The ITT also continues to meet. This group consists of representatives from WSDOT, Sound Transit, the Puget Sound Regional Council (PSRC), King Country Metro, and the Cities of Seattle, Bothell, Kenmore, and Lake Forest Park.

To date staff has held five CATF meetings and five ITT meetings. Staff will continue to meet with these groups throughout the corridor study process. Additionally, staff has met with the Cascade Bicycle Club and Feet First.

### COUNCIL GOALS ADDRESSED

The 145<sup>th</sup> Street Corridor Study directly supports two of the 2013-2015 City Council goals:

- Goal 2: Improve Shoreline's utility, transportation, and environmental infrastructure. 145<sup>th</sup> is currently inadequate for both motorized and nonmotorized use.
- Goal 3: Prepare for two Shoreline light rail stations. 145<sup>th</sup> Street will serve as the primary east-west connection to the future 145<sup>th</sup> Street Sound Transit Light Rail Station.

### **RESOURCE/FINANCIAL IMPACT**

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from the City of Shoreline Roads Capital Fund. There is no immediate financial impact associated with the continued design work on 145<sup>th</sup>.

### RECOMMENDATION

No formal action is required at this time. Staff would like Council confirmation that the work accomplished to date is consistent with Council goals and objectives for this study.

### **ATTACHMENTS**

Attachment A – 145<sup>th</sup> Street Corridor Study Project Schedule Attachment B – Corridor Study Concepts Attachment C – Off-Corridor Bike Network Study Concept

								20	15							
	PROJECT SCOPE ITEM	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	jan	feb
	Define Project Goals and Evaluation Criteria										-					
ILS	Strategy Meeting - Confirm Goals		$\diamond$													
GOALS	Develop and Confirm Evaluation Criteria															
•	Project Goals and Eval Criteria Documentation (by City)		- 1	_												
	Existing Conditions Analysis and Data Collection															
	Traffic Inventory (Volumes and LOS assessment)											LEGEN	D			
	Safety Analysis (Collisions and access assessment)					•					-	Design	Team Ta	isk		
	Transit Baseline (Facilities, service, reliability)										•	Deliver	able			
	Ped and Bike Assessment (Facilities within 1/2 mile)											Milesto	one			
	Parking and Access Baseline				•								Meeting			
	Drainage and Utilities Inventory				-						0	Counci	Briefing	5		
_	Land Use and neighborhoods															
E	Environmental footprinting															
OB	WSDOT Interchange Assessment															
PR	Existing Conditions Documentation															
뿓	Future Projections															
E	Traffic operations and levels of service															
DEFINE THE PROBLEM	Transit demands Ped and Bike Assessment (Facilities within 1/2 mile)															
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	Interchange functionality Land Use and Neighborhood Plans															
	Utility Plans					_										
	Summary Documentation															
	Mapping and Right of Way								×							
	Prepare Aerial Basemapping															
	Verification Survey															
	Prepare Preliminary Utility Mapping		-													
-	Community and Agency Outreach															
Б	Develop Agency and Public Involvement Plan			)												
OUTREACH	Partner Agency Coordination ( and ITT)															
Ĕ	Citizen Advisory Task Force (CATF)		•			•	<b>\</b> _		•	•	_		•	_		
ō	Public Meetings							_								
	City Council Briefings and Action					0	(	)			(	)	_		0	
	Study Concepts Development															
	Develop Solution Strategies (Strategy diagram)															
S	Develop Study Concepts by each unique segment															
NO	Technical analysis developed for each design component Develop concept plans, typical layouts, visualizations, concept of	docianc						_								
5	Evaluation of Study Concepts	uesigiis														
P SOLUTIONS	Develop Constructed Scales (based on Evaluation Criteria)	<b>`</b>														
P	Initial Analysis and Screening	/														
E	Confirm Evaluation, section by section of corridor										•					
DEVELO	Preferred Alternative Development										-					
	Concept Design by segment															
	PA Cost Estimate											-				
	Summary Documentation															
SC.	Channelization Plans															
ă	Concept Coordination															
V. 8	Prepare Conceptual WSDOT Chan Plans															
DE	Identify potential WSDOT Design Deviations														-ŏ	
5	Project Development Strategy and Funding Assistance														-	
PROJECT DEV. & DOC.	Project Development Strategy and Phasing											-				
PR	Route Development Plan Report															
	NOTE: PSRC Funding for design and environmental work for portion	on hotu	Aur	ora and	IE must	bo obli	rated by	( Juno 2)	016							

NOTE: PSRC Funding for design and environmental work for portion between Aurora and I5 must be obligated by June 2016.

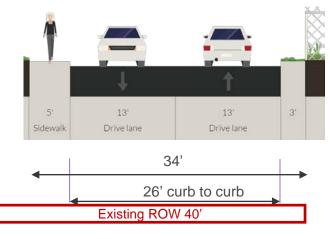
Study Concepts August 6, 2015





# Study Concept 1 – No Action/Existing Conditions

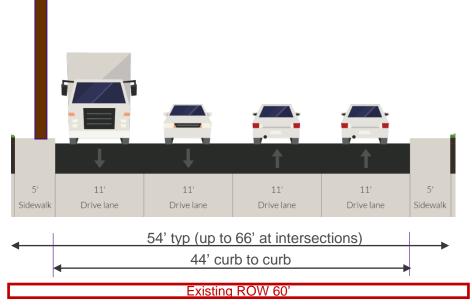
### 3<sup>rd</sup> Ave W to Greenwood Length = 0.25 miles



- 2 traffic lanes
- 5' sidewalk south side

### Greenwood to SR522

Length = 2.95 miles



- 4 traffic lanes
- No bus lanes
- Non-accessible sidewalks
- No bike facilities
- Utility poles exist on both sides of roadway

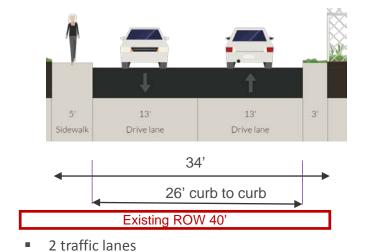




# Study Concept 2

# 3<sup>rd</sup> Ave W to Greenwood

Length = 0.25 miles



No improvements except at traffic signal

ROW Impacts (ft <sup>2</sup> )	1,770
Full Acquisitions	0 (0%)
Parcel Impacts	1 (6%)
Total Number of Parcels	16

Greenwood Length = 0.50 miles		rora				
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	8' Sidewalk	11' Drive lane	11' Drive lane	1' 11' Drive lane	11' Drive lane	6' Sidewalk
_	•		60' typ	o (up to 90' at in	tersections)	
	•	•	44' cu	rb to curb		•
I				ROW 60'		
	4 traffic	clanes, limited	left turns. U	l-turns		

5' sidewalk south side

ROW Impacts (ft <sup>2</sup> )	29,000
Full Acquisitions	3 (9%)
Parcel Impacts	25 (71%)
Total Number of Parcels	35

- innited left turns. O
- No bus lanes
- Minimal ADA accessible sidewalks
- Off-corridor bike facilities, "greenway"
- Utility poles on both sides of roadway. Sidewalk will vary based on presence of utility pole.

# Aurora to SR522 Length = 2.45 miles Concept 2A - with BAT lanes Aurora Ave to I-5

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	8' Sidewalk	11' Drive lane	11' Drive lane	1'	11' Drive lane	11' Drive lane	6' Sidewalk
			60' typ (	up	to 90' at inter	sections)	
		•	44' cu	rb	to curb		
0			Existing F	RC	DW 60'		

- 4 traffic lanes, limited left turns, U-turns
- No bus lanes
- Minimal ADA accessible sidewalks
- Off-corridor bike facilities, "greenway"
- Utility poles on both sides of roadway. Sidewalk will vary based on presence of utility pole.

ROW Impa	acts (ft <sup>2</sup> )	38,400
Full Acqu	isitions	23 (24%)
Parcel In	npacts	63 (66%)
Total Number	of Parcels	96
		I-5 to Lake City Way
ROW Impa	acts (ft <sup>2</sup> )	65,300
Full Acqu	isitions	17 (14%)
Parcel In	npacts	82 (69%)
Total Number	of Parcels	120

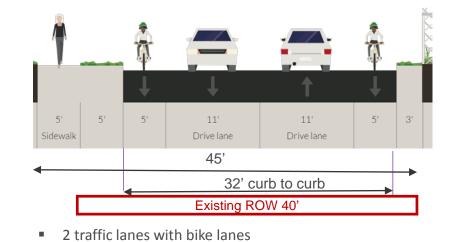




# Study Concept 3

### 3<sup>rd</sup> Ave W to Greenwood

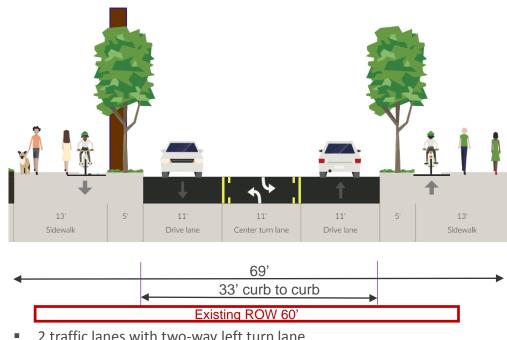
Length = 0.25 miles



ROW Impacts (ft <sup>2</sup> )	8,450
Full Acquisitions	0 (0%)
Parcel Impacts	15 (94%)
Total Number of Parcels	16

# Greenwood to Aurora

Length = 0.50 miles



ROW Impacts (ft <sup>2</sup> )	31,350
Full Acquisitions	6 (17%)
Parcel Impacts	34 (97%)
Total Number of Parcels	35

- 2 traffic lanes with two-way left turn lane
- No bus lanes
- 5' amenity zones/planter
- 13' sidewalks includes 5' striped directional bike lane each side
- Utility poles in amenity zones

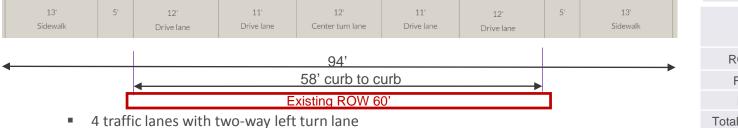
5' sidewalk south

### Aurora to SR522 Length = 2.45 miles



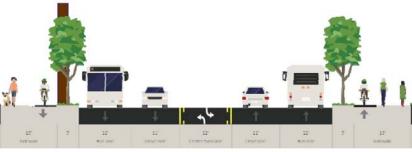
Concept 3A - "Road Diet"

	Aurora Ave to I-5
ROW Impacts (ft <sup>2</sup> )	124,200
Full Acquisitions	40 (42%)
Parcel Impacts	96 (100%)
Total Number of Parcels	96



13' sidewalks includes 5' striped directional bike lane each side

I-5 to Lake City Way ROW Impacts (ft<sup>2</sup>) 221,500 55 (46%) **Full Acquisitions** 120 (100%) Parcel Impacts 120 Total Number of Parcels



Concept 3B - with BAT lanes





No bus lanes

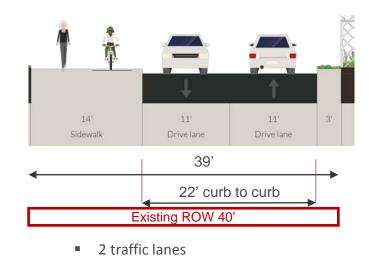
5' amenity zones/planter

Utility poles in amenity zone

# Study Concept 4

### 3<sup>rd</sup> Ave W to Greenwood

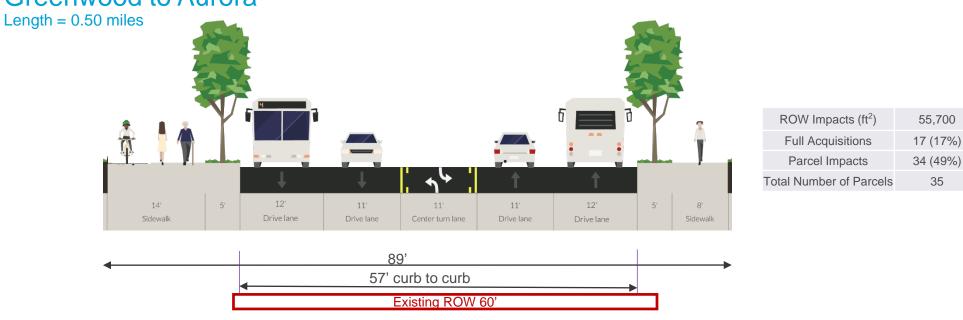
Length = 0.25 miles



Shared path on south side

4,720
0 (0%)
8 (50%)
16

35



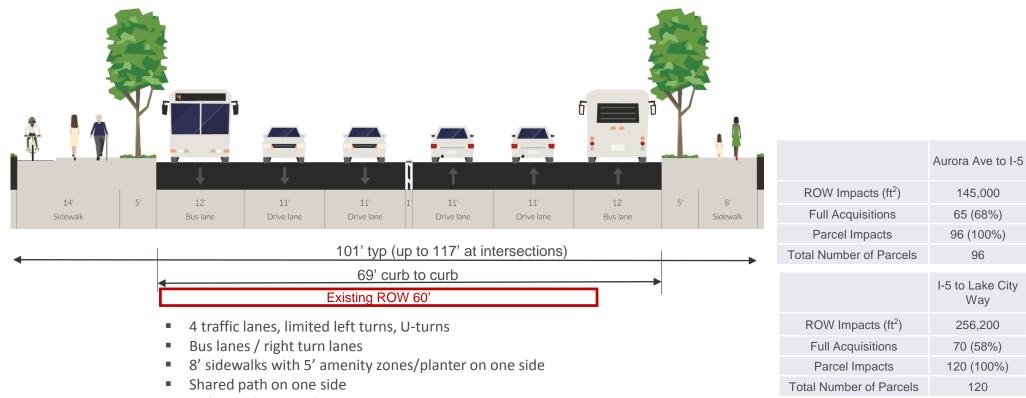
- 4 traffic lanes with two-way left turn lane
- No bus lanes

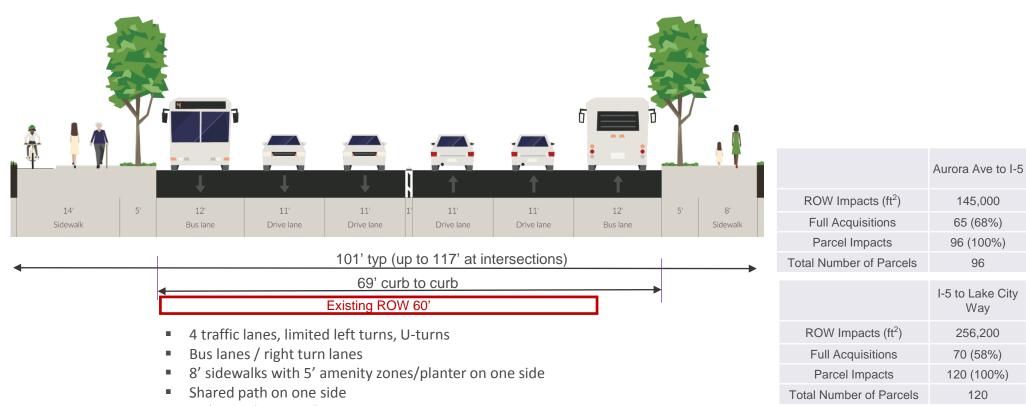
- Sidewalk and amenity zone
- Shared path on north side
- Utility undergrounding





Concept 4A – Center Two-lane Bus way





# Greenwood to Aurora

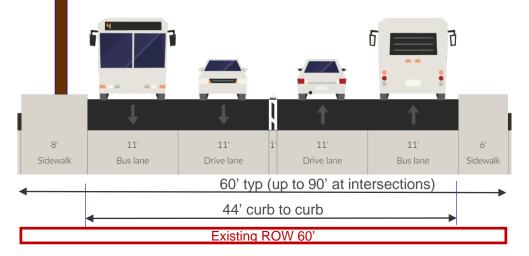
- Utility undergrounding





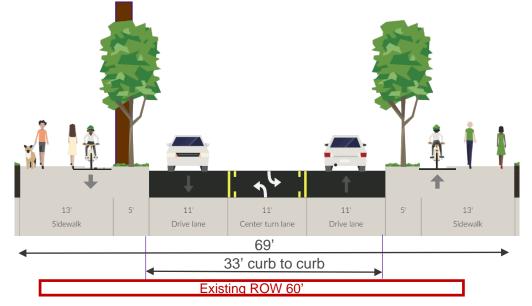
# **Additional Study Concepts**

## Concept 2A – BAT Lanes, Aurora to SR522



- 2 traffic lanes, limited left turns, Uturns
- BAT Lanes

## Concept 3A – Three Lanes "Road Diet", Aurora to SR522

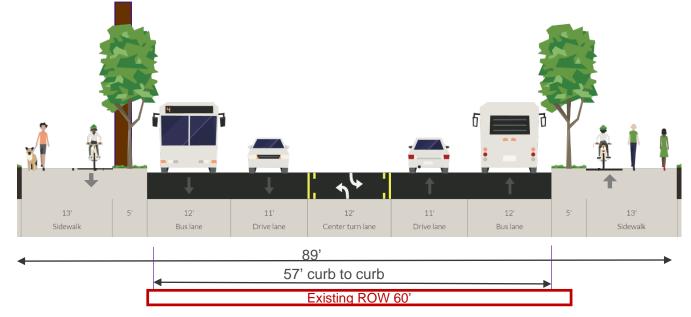


 2 traffic lanes with two-way left turn lane

2 traffic lanes with two-way left

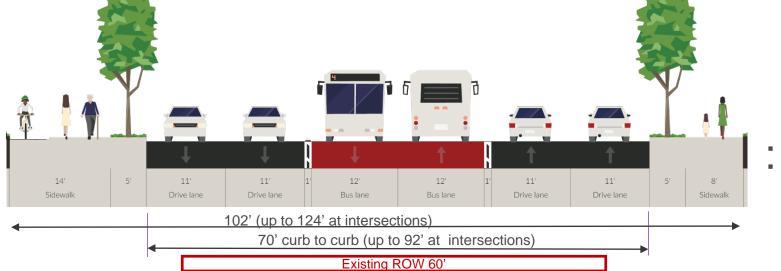
No bus lanes

### Concept 3B – with BAT Lanes, Aurora to SR522



- Concept 4A Center Bus Lanes, Aurora to SR522

turn lane Bat lanes



- 4 traffic lanes
- Center two-lane bus way

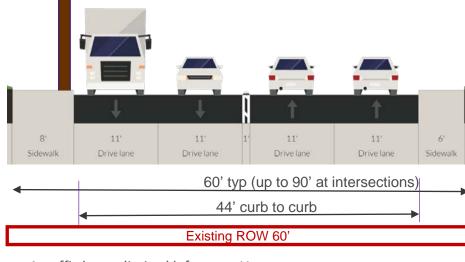




# **Typical Sections – Mid-block**

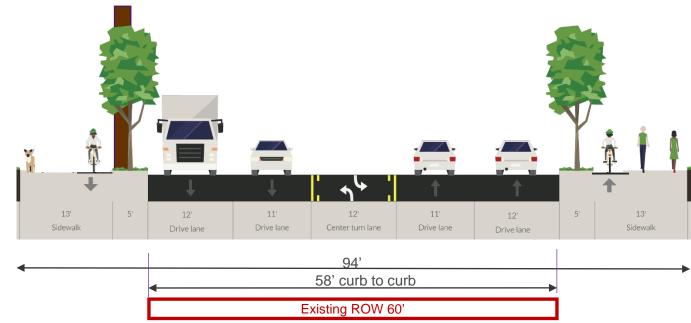
Aurora to SR522 Length = 2.45 miles

# Study Concept 2



- 4 traffic lanes, limited left turns, U-turns
- No bus lanes
- Minimal ADA accessible sidewalks
- Off-corridor bike facilities, "greenway"
- Utility poles on both sides of roadway. Sidewalk will vary based on presence of utility pole.

# Study Concept 3



- 4 traffic lanes with two-way left turn lane
- No bus lanes
- 5' amenity zones/planter
- 13' sidewalks includes 5' striped directional bike lane each side
- Utility poles in amenity zone

# Study Concept 4





#### Preliminary Property Impact Summary

	Aurora Ave to I-5
ROW Impacts (ft <sup>2</sup> )	38,400
Full Acquisitions	23 (24%)
Parcel Impacts	63 (66%)
Total Number of Parcels	96
	I-5 to Lake City Way
ROW Impacts (ft <sup>2</sup> )	-
ROW Impacts (ft <sup>2</sup> ) Full Acquisitions	Way
,	Way 65,300
Full Acquisitions	Way 65,300 17 (14%)

	Aurora Ave to I-5			
ROW Impacts (ft <sup>2</sup> )	124,200			
Full Acquisitions	40 (42%)			
Parcel Impacts	96 (100%)			
Total Number of Parcels	96			
	I-5 to Lake City Way			
ROW Impacts (ft <sup>2</sup> )	, , , , , , , , , , , , , , , , , , ,			
ROW Impacts (ft <sup>2</sup> ) Full Acquisitions	Way			
1 ( )	Way 221,500			

			interest of the second	<b>( →</b>	Î ↑	1		ľ	¢ŧ.	ROW Impacts (ft <sup>2</sup> ) Full Acquisitions Parcel Impacts	Aurora Ave to I-5 145,000 65 (68%) 96 (100%)
14' Sidewalk	5'	12' Bus lane	11' Drive lane	11' Drive lane	1' 11' Drive lane	11' Drive lane	12' Bus lane	5'	8' Sidewalk	Total Number of Parcels	96
101' typ (up to 117' at intersections)											I-5 to Lake City Way
69' curb to curb Existing ROW 60'							,			ROW Impacts (ft <sup>2</sup> )	256,200
	<ul> <li>4 traffic lanes, limited left turns, U-turns</li> </ul>									Full Acquisitions	70 (58%)
										Parcel Impacts	120 (100%)
		<ul> <li>Bus lanes / right turn lanes</li> <li>8' sidewalks with 5' amenity zones/planter on one side</li> </ul>								Total Number of Parcels	120
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