

WHY CHANGE SERVICE IN SR-520 CORRIDOR

- ✓ Provide new direct connections to SLU, a growing regional center
- ✓ Avoid service duplication by integrating planning with King County Metro
- ✓ Improve productivity by carrying more riders with same resources

BACKGROUND

King County Metro (Metro) is currently working with the public and stakeholders in northeast King County to potentially restructure service in that part of the county. A major element of the North Eastside Mobility Plan (NEMP) public process is weighing whether Metro Route 255 (Kirkland-Downtown Seattle) should be restructured to serve the University of Washington. If Route 255 is restructured, service on ST Express Route 540 (Kirkland-U District) would become duplicative. Sound Transit staff has been working closely with Metro and jurisdictional partners to identify opportunities for an improved integrated network and develop the most efficient service for customers in the corridor if Route 255 is restructured.

Current Board-adopted service standards and performance measures for ST Express identify low performing routes as being candidates for service adjustments, to improve productivity and cost effectiveness of resources. Routes 540 and 541 (Overlake P&R-U District) are two of the lowest performing routes in the ST Express system in terms of ridership productivity, ranking 23rd and 25th, respectively, out of 28 routes. Therefore, as part of the NEMP process, Sound Transit is looking to improve resource efficiency in the corridor.

SERVICE PROPOSALS *(Dependent on Metro Route 255 Restructure)*

If Metro Route 255 is restructured to serve the University of Washington, Sound Transit would propose the following changes to ST Express service in the SR-520 corridor.

- **Implement new Route 544 service** between Overlake P&R and South Lake Union (SLU), via the South Kirkland P&R, using reallocated resources from other routes in the corridor.
- **Replace Route 540 service with new restructured Metro Route 255** between Kirkland and U District, to avoid duplication of public resources. Reallocate saved Route 540 resources to new Route 544.
- **Replace Eastside segment of Route 541 with new Route 544 service.** Route 541 riders traveling between Overlake and U District can switch to Route 542. Reallocate saved Route 541 resources to new Route 544.
- **Route 544 replaces Capitol Hill deviation from Route 545** (Bear Creek P&R-Downtown Seattle), to streamline and speed up service for Eastside bound riders.

If the King County Council does not move forward with changes to Route 255, Sound Transit would not move forward with changes to ST Express Routes 540, 541 or 545.

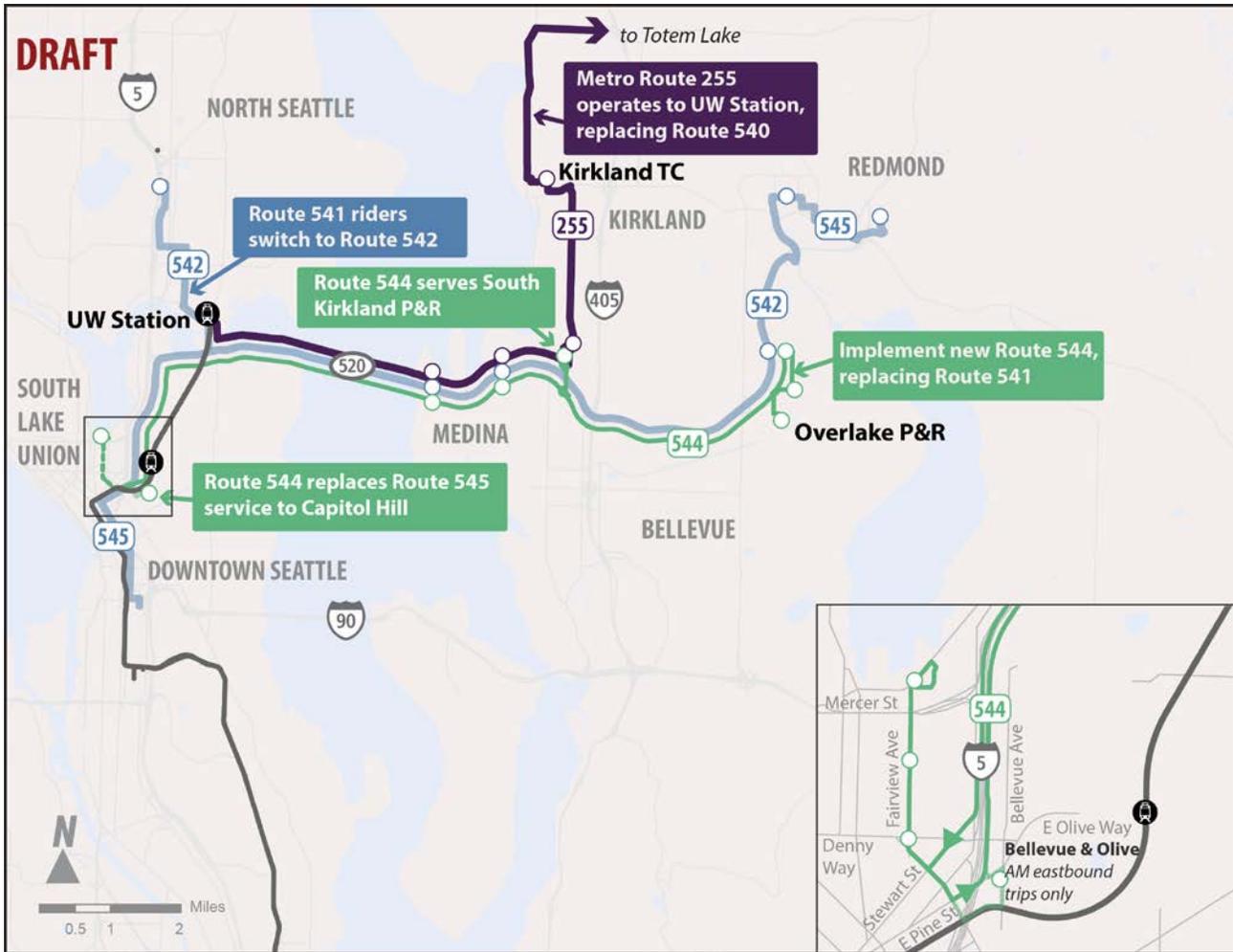
OUTREACH AND SOUND TRANSIT APPROVAL PROCESS

In coordination with Metro, Sound Transit will be participating in the NEMP public outreach process in fall 2018 and sharing the service proposals outlined in this memo. Public and stakeholder feedback gathered during the NEMP process will be used to refine the service proposals. The refined proposals and concepts will be presented to the Sound Transit Board of Directors in early 2019 for approval. If approved, the service proposals would be implemented at the September 2019 service change.



PROPOSED ROUTE 544 ROUTING & CORRIDOR SERVICE PLAN

As shown on the map below, Route 544 would serve major P&Rs and transit centers on the Eastside, closely mirroring today's Routes 540 and 541. In Seattle, Route 544 would use Fairview Ave to access SLU and the bus layover area. The bus layover location in SLU will be shared with Metro's RapidRide C line, and details about the utilization are still being discussed with Metro. Eastbound Route 544 would serve the Capitol Hill neighborhood in the AM only, replacing Route 545 service to the stop.



As shown in the table below, a preliminary service plan for new Route 544 identifies that the route would operate every 12-15 minutes in both directions and operate during peak periods only. A total of 50 to 60 trips would be provided each weekday.

Direction	Frequency	Total Trips	Service Span
To Eastside (EB)	12-15 min	25-30 trips	Peak Only
To SLU (WB)	12-15 min	25-30 trips	Peak Only

What happens if Metro doesn't restructure Route 255?

Public feedback received by Metro as part of their NEMP public engagement process will inform the King County Council adoption process for any potential changes to service in the north east part of King County. The public engagement process is expected to wrap up by the end of 2018, with the King County Council potentially taking action on the proposed changes in spring 2019.

If the King County Council does not move forward with changes to Route 255, Sound Transit would not move forward with changes to ST Express Routes 540, 541 or 545. Changing ST Express service without a Route 255 restructure would remove a direct connection from Kirkland to the University of Washington and introduce further impacts; therefore, the proposed changes would not move forward.

KEY QUESTIONS

How is the new Route 544 funded?

Resource reallocation in the corridor provides funding for new Route 544 connections. Resources for new Route 544 would come from the discontinuation of low productivity Routes 540 and 541, as well as from the savings of Route 545 no longer deviating to serve the Capitol Hill stop. The table below shows how resources for the various routes would change with the proposed service plan in the corridor.

Route	Proposed Change	Annual Resources Today	Net Change in Resources	Annual Resources After Changes
540	Discontinue	9,000	-9,000	-
541	Discontinue	10,500	-10,500	-
544	New Route	-	-	20,250
545	Stop Removal	79,500	-750	78,750
	<i>Total</i>	<i>99,000</i>		<i>99,000</i>

How many riders is new Route 544 estimated to carry?

More riders, same resources. Preliminary ridership estimates show a demand of over 1,600 riders each weekday for Route 544, compared to the combined 1,400 riders Routes 540 and 541 carry each weekday. *Ridership on Route 544 was estimated using assumptions of current Route 255 and 545 customer travel patterns to and from the north end of the Downtown Seattle core during the peak periods. Induced ridership demand, i.e. new service drawing new riders into the system, is not captured in the preliminary ridership estimates for Route 544.*

Direction	Time Period	Estimated Period Ridership	Percent Full (12 min Frequency)	Percent Full (15 min Frequency)
Eastbound	AM Peak	600	60%	75%
Eastbound	PM Peak	275	28%	34%
Westbound	AM Peak	550	55%	69%
Westbound	PM Peak	235	24%	29%
	<i>Total</i>	<i>1,660</i>	<i>42%</i>	<i>52%</i>

What are the customer benefits of these proposals?

The implementation of new Route 544, and complementary changes to Routes 540, 541, and 545, would provide significant benefits to riders in the SR-520 corridor, including but not limited to:

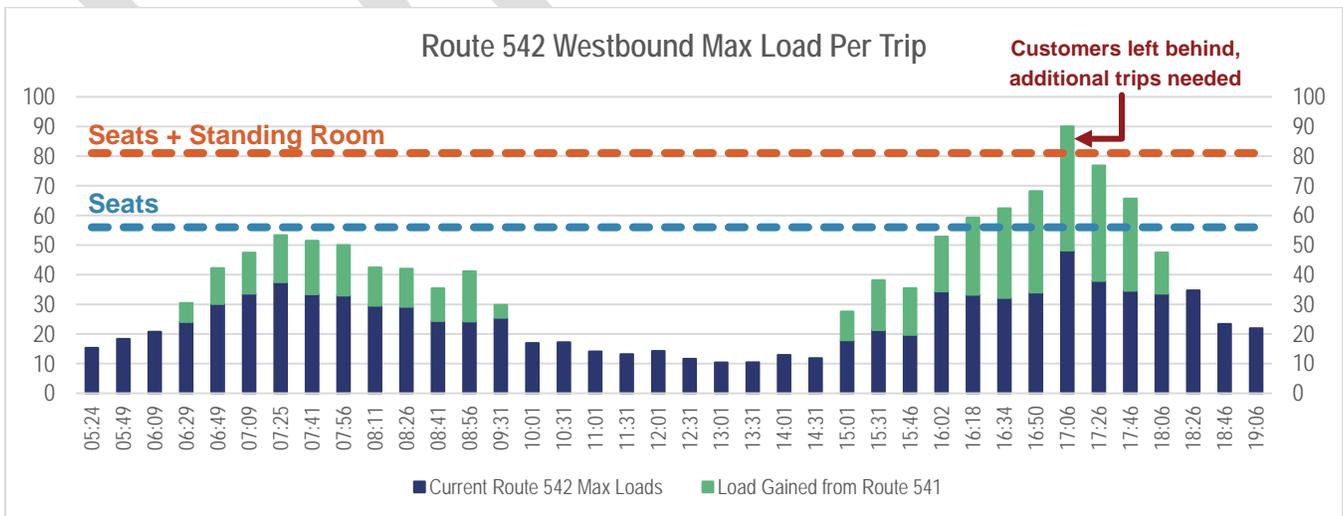
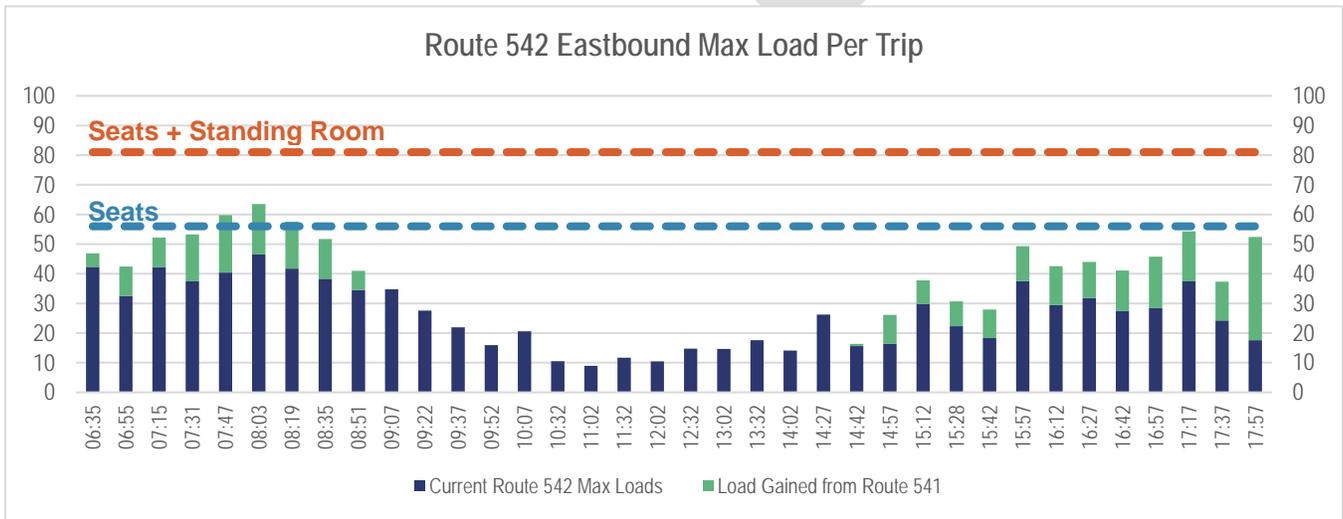
- **Delivers new direct connections to SLU from East King County.** Based on feedback from outreach efforts in the corridor, staff has heard that connections to the SLU market is a high priority for Eastside customers and stakeholders.
- **Over 600 ST Express customers would benefit from improving integration of Sound Transit and Metro service in the corridor.** Current 600 peak only Route 540 Kirkland - University of Washington riders would gain an all-day, all-week frequent service in the restructured Route 255, despite losing access to the ST Express brand.
- **Over 5,000 customers would benefit from providing additional capacity on the busiest part of the corridor, Overlake-North Downtown Seattle.** Adding additional service and seating capacity in the busiest part of the corridor will help alleviate standing loads and overcrowding on Route 545 in the peak periods, benefiting approximately 5,000 riders.
- **Over 1,000 customers would benefit from streamlining and speeding up one of the busiest routes in the system.** By not deviating to serve a stop, over 1,000 customers on Route 545 would have a 5-10 minute faster trip to their destination on the Eastside. Capitol Hill riders would also gain seats for their trips using Route 544, as Capitol Hill customers today often have to stand during their to the eastside when they board Route 545.
- **Maximizing efficiency of ST Express resources,** by consolidating resources of two of the system’s lowest performing routes and avoiding direct duplication of Metro service.

What are the customer impacts of these proposals?

The implementation of new connections between East King County and SLU brings numerous customer benefits, although it also comes with tradeoffs and customer impacts.

- **Over 800 customers would be impacted by reduced frequency, span of service, and capacity between Overlake and the University of Washington**, by discontinuing Route 541. Although Route 542 currently has capacity to handle most of the additional 800 Route 541 riders, there would occasionally be standing loads and two trips may be overcrowded on Route 542 in the PM peak. The table and charts below provide more details of the outcomes of this proposed change. *(Note: it is assumed that Route 542 would operate using 60' articulated buses at the time of this change, rather than a mix of 40' and 60' buses as today)*
- **To alleviate the potential for customers being left behind at the stop because of overcrowding, Sound Transit would need to explore adding one trip westbound in the PM peak.**

Direction	Time Period	Current Route 541 & 542 Joint Service			Route 542 With Route 541 Discontinuation (preliminary)		
		Frequency (min)	Passengers Per Trip	Service Span	Frequency (min)	Passengers Per Trip	Service Span
Eastbound	AM Peak	9	32	6:30am-9:00am	15-20	59	6:30am-9:00am
Eastbound	PM Peak	8.5	21	2:45pm-7:00pm	12-15	46	2:45pm-6:00pm
Westbound	AM Peak	8	24	6:30am-9:30am	15-20	48	6:30am-9:00am
Westbound	PM Peak	12	35	3:00pm-7:00pm	15-20	67	3:00pm-7:00pm



What are the customer impacts of these proposals (continued)?

- Around 475 customers would lose frequency and service span, by Route 544 taking over service to Capitol Hill.** Currently, Capitol Hill riders heading to the Eastside have access to very high frequency bus service on Route 545 for over five hours, as trips on Route 545 operate every 6-10 minutes. With the new Route 544, the riders at the stop would now have buses operating every 12-15 minutes and serve the stop for a fewer service span.

Direction	Time Period	Current Route 545 Service		New Route 544 Service (preliminary)	
		Frequency (min)	Service Span	Frequency (min)	Service Span
Eastbound	AM Peak	6-10	5:00am-10:30am	12-15	6:00am-10:00am

- Around 225 customers would now need to transfer to reach their final destination,** if traveling between Capitol Hill and Downtown Redmond or Bear Creek, or between Overlake P&R and the University of Washington. About 150 Capitol Hill riders heading to Downtown Redmond or Bear Creek via Route 545, would now have to transfer from Route 544 to Route 545 along SR-520. About 75 customers that travel between the Overlake P&R and the University of Washington would lose a direct one-seat ride to the University of Washington campus. With the implementation of Route 544, Overlake P&R riders would and transfer to Route 542 or Route 255 along SR-520 to access the University of Washington campus, or vice versa if traveling from the University of Washington to Overlake P&R.
- Around 145 customers would walk farther, up to six tenths of a mile to access their new stop on Route 255.** The 100 customers utilize the stops on the 15th Ave NE and Stevens Way loop on Route 540 would now have to walk between a quarter to three-quarters of a mile to their new respective Route 255 stop, as Route 255 is not proposed to utilize the 15th Ave NE or Stevens Way loop. The table below shows additional details of the impact to these customers.

Current Route 540 Stop	Boardings	New Route 255 Stop	Distance To New Stop (mi)
Stevens Way & Memorial Way	20	NE Pacific St/15 th Ave NE	0.6
Stevens Way & Pend Oreille Rd	22	UW Station	0.5
Stevens Way & Benton Ln	21	UW Station	0.4
Stevens Way & Rainier Vista	4	UW Station	0.25
Stevens Way & Garfield Ln	4	NE Pacific St/15 th Ave NE	0.25
Grant Ln & Stevens Way	21	NE Pacific St/15 th Ave NE	0.25
15 th Ave NE & NE 40 th St	52	NE Pacific St/15 th Ave NE	0.25
15 th Ave NE & NE 42 nd St	0	NE Pacific St/15 th Ave NE	0.3
Total	144		

What is Sound Transit Outreach and Sound Transit Approval Process for These Proposals?

In coordination with Metro, Sound Transit will be participating in the NEMP public outreach process in fall 2018 and sharing the service proposals outlined in this memo. Public and stakeholder feedback gathered during the NEMP process will be used to refine the service proposals. The refined proposals and concepts will be presented to the Sound Transit Board of Directors in early 2019 for approval. If approved, the service proposals would be implemented at the September 2019 service change.

