

Attachment 2: Complete Street – Bus Speed Analysis

Staff conducted an analysis of bus vehicle speeds along segments of Telegraph Avenue (Oakland) and Park Street (Alameda) in response to the May 10, 2023, Board follow-up request to report back with data on areas that indicate a linkage between complete streets and transit delays. The following analysis compares average weekday bus speeds during the PM peak period (3:00pm – 7:00pm), before and after the completion of complete streets projects along segments of the Telegraph Avenue and Park Street corridors (see solid blue and orange lines in the charts below). The analysis also includes average weekday bus speeds along segments of Telegraph Avenue and Park Street without complete streets treatments (see dashed gray lines in the charts below), to see if there were any variations in bus speeds along corridor areas that did not have major complete streets treatments. The data covers Winter 2018 through Fall 2024.

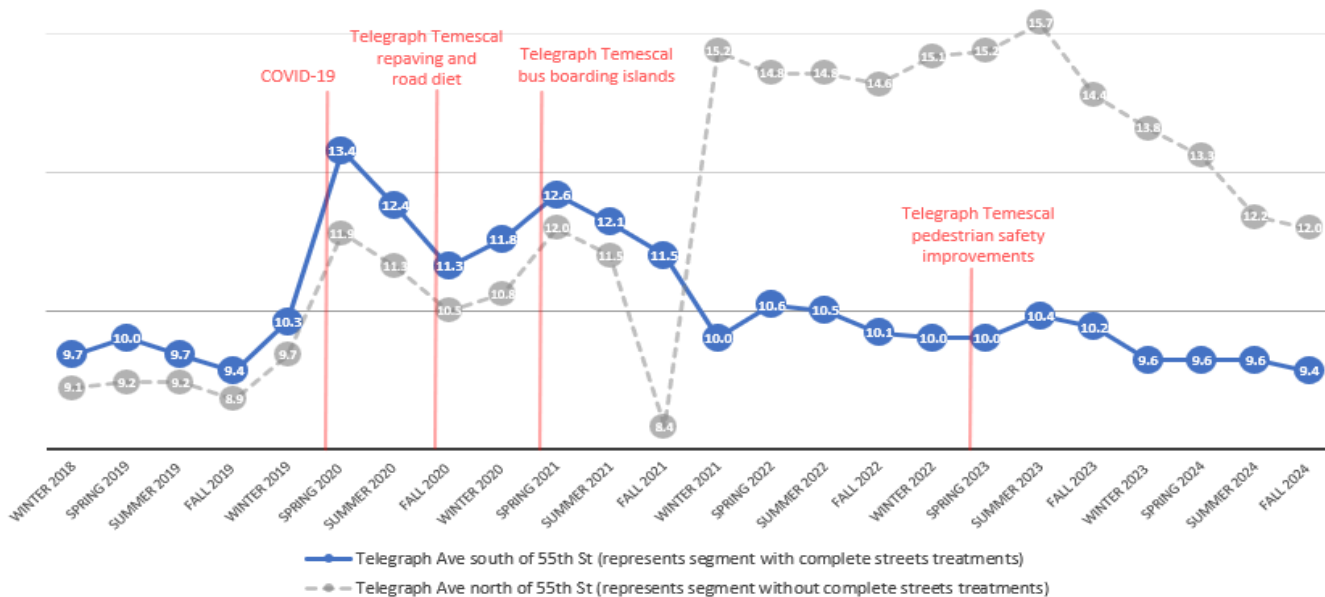
Line 6, Telegraph Avenue between 40th St and 52nd St, Oakland

Recent changes to Telegraph Avenue as part of OakDOT’s Telegraph Temescal project include:

- Repaving in Fall 2020 (including installation of temporary protected bike lanes, travel lane reduction, and improved pedestrian crossings);
- Installation of bus boarding islands in early 2021; and
- Installation of pedestrian safety islands in 2023.

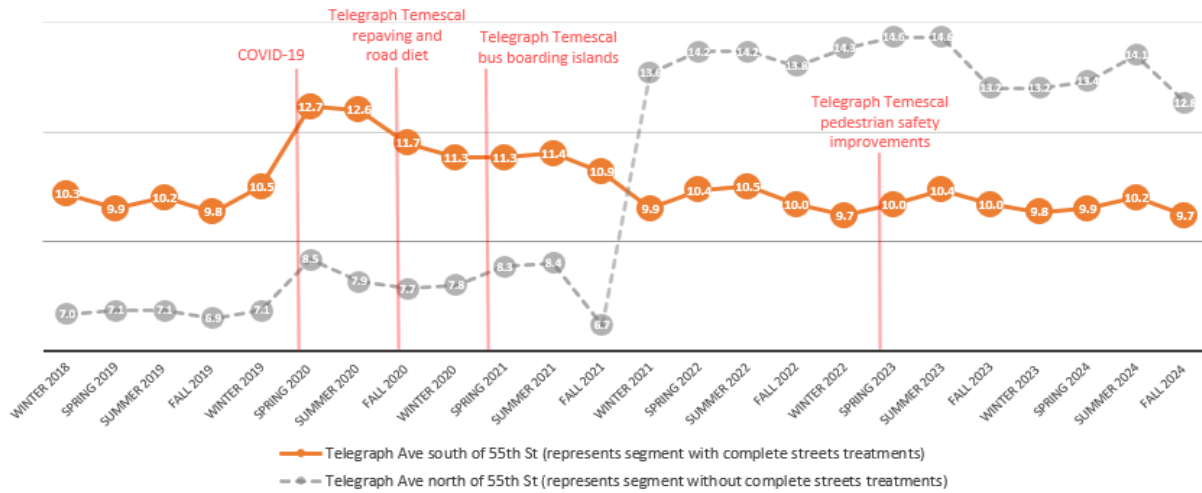
For this analysis, the portion of Line 6 operating north of Telegraph Ave/55th St was evaluated as the segment without complete streets treatments.

Weekday Average PM Peak MPH along Telegraph Ave (northbound)



Note: Due to timepoint changes, the “with complete streets treatments” analysis for pre-Winter 2021 covers speed data for Telegraph Ave/40th St to Telegraph Ave/Alcatraz Ave, and post-Winter 2021 covers speed data for Uptown Transit Center to Telegraph Ave/55th St. The “without complete streets treatments” analysis for pre-Winter 2021 covers Telegraph Ave/Alcatraz Ave to Oxford St/Addison St, and post-Winter 2021 covers speed data for Telegraph Ave/Alcatraz Ave to Telegraph Ave/55th St.

Weekday Average PM Peak MPH along Telegraph Ave (southbound)

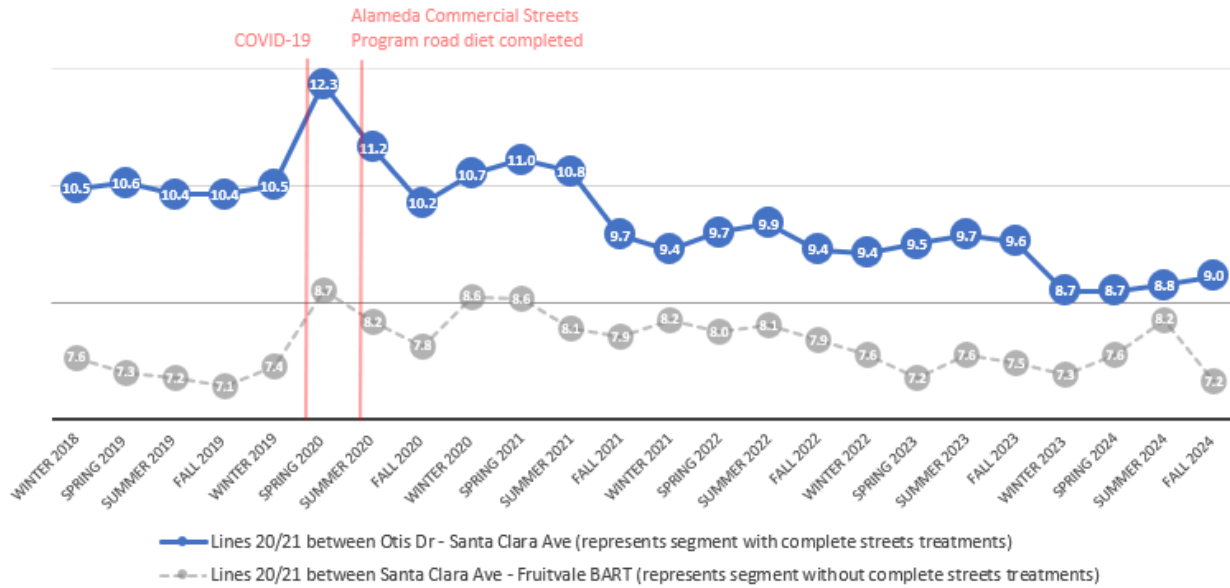


Note: Due to timepoint changes, the “with complete streets treatments” analysis for pre-Winter 2021 covers speed data for Telegraph Ave/40th St to Telegraph Ave/Alcatraz Ave, and post-Winter 2021 covers speed data for Uptown Transit Center to Telegraph Ave/55th St. The “without complete streets treatments” analysis for pre-Winter 2021 covers Telegraph Ave/Alcatraz Ave to Oxford St/Addison St, and post-Winter 2021 covers speed data for Telegraph Ave/Alcatraz Ave to Telegraph Ave/55th St.

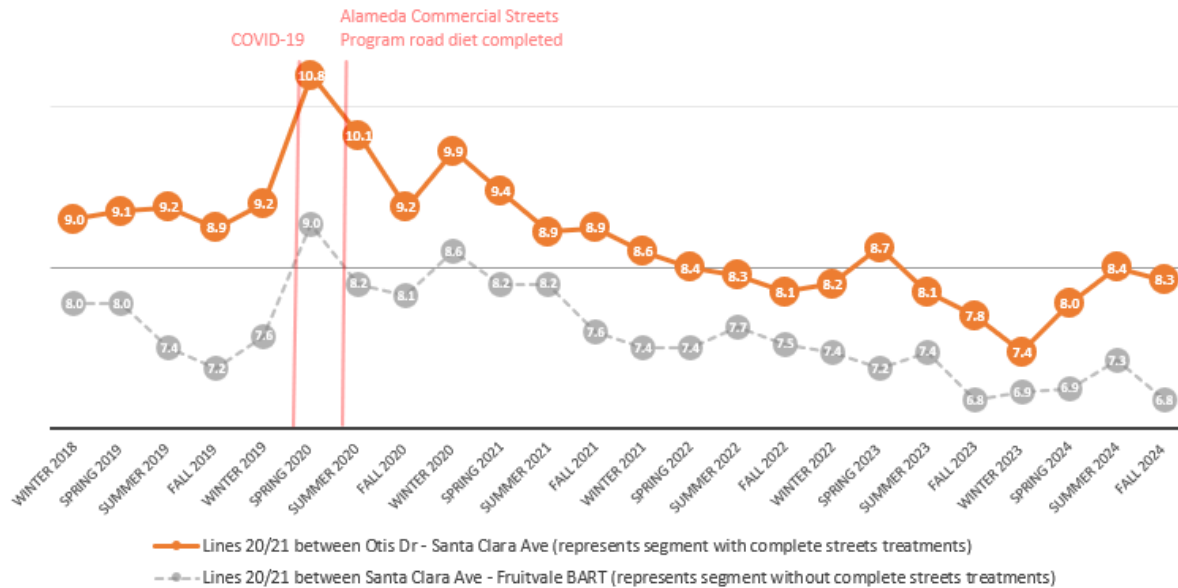
Lines 20 and 21, Park Street between Lincoln Avenue and Encinal Avenue, Alameda

The City of Alameda reconfigured a portion of Park Street as part of its Commercial Streets Program, including a road diet completed in July 2020. For this analysis, the portion of Lines 20 and 21 operating between Park St/Santa Clara Ave and Fruitvale BART was analyzed as the segment without complete streets treatments.

Weekday Average PM Peak MPH along Park St (eastbound)



Weekday Average PM Peak MPH along Park St (westbound)



It is important to note that bus speeds were impacted by the lower volumes of vehicular traffic during the COVID pandemic, thus explaining the peak speeds in the above charts (12.7 mph/13.4 mph for Telegraph Avenue and 10.8 mph/12.3 mph for Park Street), followed by a decline in speeds following the subsequent completion of roadway projects along the two corridors. Also, note that the District implements service changes (signups) four times per year, which may include changes to a route’s timepoints. Any timepoint changes will affect the roadway segments for which the speed data is reported. The portions of Lines 6, 20, and 21 that overlap with the complete streets projects on their respective streets are captured within the speed data presented in this attachment, but it is important to note that the route segments for comparison are not entirely consistent from 2018 to 2024.

Overall, for both corridors analyzed, recent bus speeds along the route segments with complete streets treatments are either similar to or slower than pre-COVID bus speeds (see the following table). Bus speeds in general have also been trending downward compared to pre-COVID bus speeds (focusing on Park Street since the data reporting for Telegraph Avenue changed in 2021).

Average Weekday PM Peak Bus Speeds on Telegraph Avenue and Park Street Route Segments with Complete Streets Treatments

	Line 6		Line 20		Line 21	
	NB	SB	EB	WB	EB	WB
Winter 2018 – Winter 2019 (pre-COVID)	9.8 mph	10.1 mph	10.2 mph	9.4 mph	10.7 mph	10.4 mph
Winter 2021 – Winter 2022	10.2 mph	10.1 mph	9.5 mph	8.9 mph	9.6 mph	7.8 mph
Fall 2023 – Fall 2024	9.7 mph	9.9 mph	8.9 mph	8.4 mph	9.0 mph	7.5 mph