

Traffic Study Summary

Date:	September 8, 2020
Prepared By:	Carly Farmer, E.I.T., Engineer
Request:	Permanent installation of reverse angle parking on Playground Drive in Landa Park.
Recommendation:	Proceed with the permanent installation of reverse angle parking. There is high compliance among users of the parking lot.

Background

The Public Works Department implemented a pilot program to utilize and evaluate reverse (back-in) angle parking on both sides of Playground Drive in Landa Park between Landa Park Drive and Monument Drive. The piloted parking offers park visitors a safer experience for motorists, bicyclists and pedestrians. Reverse angle parking provides better visibility for the driver when leaving the parking space, and the doors and trunk of parked vehicles open to the interior of the park instead of individuals standing out on the street to gather and unload. Because this lot is predominately used for access to the playground, this allows parents more opportunity to prevent small children from entering the street near traffic.

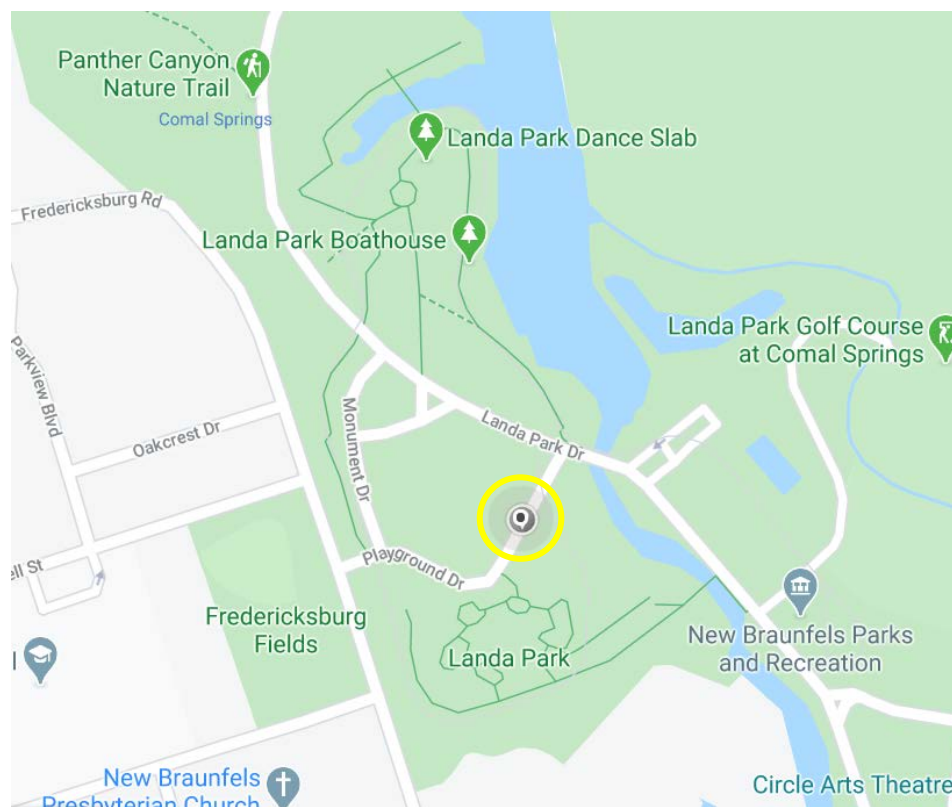


Figure 1. Location of Parking Lot on Playground Drive in Landa Park

City staff received direction to utilize various education measures, conduct field observations, and provide a recommendation on the permanent installation of reverse angle parking on Playground Drive.

Guidance

The Texas Manual on Uniform Traffic Control Devices (TMUTCD) does not provide any warrants or guidance for this type of engineering study. Engineering judgment was used in the safety and efficacy assessment of this study.

Site Investigation

Multiple observations were conducted at the parking lot on Playground Drive at multiple times on multiple weekdays over the course of the summer June – August, 2020. The investigation included documentation of the parking lot characteristics, education measures, general observations, and evaluation of compliance both in number of reverse angle parked vehicles and loading/unloading behaviors.

This street is located within Landa Park where there is high vehicle, bicycle, and pedestrian activity. The peak usage times are from 9 AM to 1 PM. The majority of the users during this time are parents bringing their children to the playground in the late morning and picnickers having lunch in the early afternoon. Observations were conducted during COVID-19 conditions which likely resulted in reduced use and traffic in this area.

Crash History

Traffic crash data for 2014 through September 2020 was found through TxDOT's Crash Records Information System. There was one reported crash along Playground Drive between Monument Drive and Fredericksburg Road. There were zero reported crashes along Playground Drive in the parking lot between Landa Park Drive and Monument Drive during this time.

Data Collection

Observations were collected in 15 minute intervals in the parking lot on Playground Drive between Landa Park Drive and Monument Drive at multiple times on multiple weekdays during the summer of 2020 from June to August. During the interval, the total number of parking spots, the number of parked vehicles, and the number of compliant parked vehicles are documented initially. Throughout the interval, the number of park-side and street-side loading and unloading were recorded. Also documented were the education measures present and any general observations from the observer.

The results of this study show that compliance is seen in the majority of the users of the parking lot. With the installation of back-in only parking signs, an average of only one vehicle wouldn't be parked compliantly at any given time. In addition, 88% of loadings/unloadings occurred park-side, with 91% during the peak time period of 9 AM to 1 PM.



Figure 2. Cars Parked Compliantly with the Installed Back-in Parking Only Signs

Recommendation

It is recommended to proceed with the permanent installation of reverse angle parking. There is high compliance among users of the parking lot with the installation of temporary back-in only parking signs. The city will need to permanently install the signs.