Los Angeles Makes Strategic Crossing Enhancements Using Detailed Inventory

Los Angeles, California

KEY ELEMENTS:

Asset Management

Crosswalk Enhancement

The Los Angeles Department of Transportation (LADOT) created an uncontrolled crosswalk inventory to understand current assets and prioritize locations for crosswalk enhancements. The uncontrolled crosswalk inventory aligns with LADOT's Vision Zero campaign and cross-agency efforts to improve pedestrian access around Los Angeles.

CREATING THE INVENTORY

LADOT began its uncontrolled crossing inventory in 2016 to better understand its existing network and prioritize improvements. LADOT inventoried 690 uncontrolled crossing locations using a combination of in-house data, field data, and Google Maps. LADOT chose to use Google Sheets—a cloud-based spreadsheet program—to store, filter, and query their uncontrolled crosswalk inventory.

For each uncontrolled crosswalk location, the following data was collected: roadway features (e.g., primary street, cross street, street width), crosswalk features (e.g., striping color, advance yield markings, in-street yield to pedestrian signs, distance to nearest intersection), and contextual elements like crash history, future plans, and if the location is on the City's High-Injury Network (HIN). LADOT assigned each uncontrolled crosswalk a geographical information system (GIS) identification code that is linked in Google Street View.

LADOT is not planning regular large-scale updates of the inventory data, and maintenance is only completed on a project basis. However, the department will integrate new crash data into the inventory database annually.
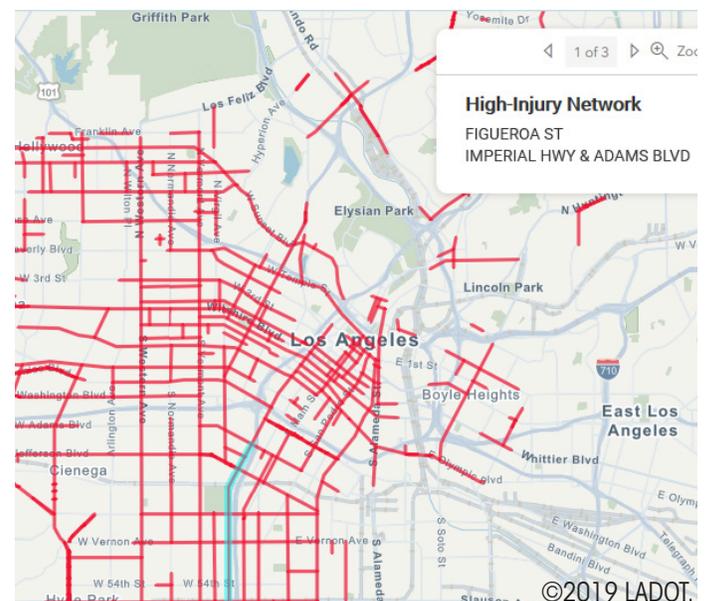

Figure 1. Photo. LADOT's Livable Streets initiative displays the HIN.

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APPLYING THE INVENTORY TO IMPROVE SAFETY

The inventory tool is used to assess current assets and prioritize locations in need of enhancements. For example, when LADOT wants to see which uncontrolled crossings are most suitable for in-street yield to pedestrian signs, the City might filter by HIN, collision history, street width, and other relevant fields. The query results will narrow locations down to the most suitable candidates and assist the City in decision making. The City can use the uncontrolled crosswalk inventory of sites along the HIN to identify locations for countermeasures such as the pedestrian refuge island in figure 2.

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Figure 2. Photo. The inventory helped prioritize improvements such as this pedestrian refuge island.

> "This is a tool that allows us to look at our vast [crosswalk] assets and come up with a strategy to prioritize ugrading them."
>
> –Tim Fremaux, Senior Transportation Engieer LADOT

LESSONS LEARNED

The following tips and lessons may prove helpful when an agency proceeds to create a pedestrian crossing inventory.

- Limit the number of individuals who have editing permissions to the inventory.

- Consider how a jurisdiction will handle updates and maintenance (e.g., quarterly, annually, project-by-project basis).

- Allow for considerable staff time during the inventory's creation, though ongoing maintenance is less demanding of staff resources.

- Unforeseen demands or expansion of the inventory may occur. For example, LADOT created the inventory to manage current uncontrolled crosswalk assets, but through maintenance and prioritization have identified more midblock areas in need of uncontrolled crossing amenities.

Table 1. Example excerpt from LADOT inventory spreadsheet.

Primary Street	Cross Street	ID & Link to Street View	Striping?	Channelization?	Median?	Refuge Island?	Ped Vol Signal Warrant Met?	Ped/Bike Collisions (2012-2016)	Ped/Bike KSI (2012-2016)	Zegeer Rating
120th St.	Stanford Ave.	96172	✓	✗	Painted			1	0	-
182nd St.	Evelyn Ave.	138258		✓	✗			0	0	2
3rd St.	Columbia Ave	124586		✓	✗		✓	5	0	N/A

References

[1]Tools to Inventory Pedestrian Crossing Infrastructure Webinar from the pedbikeinfo center: http://www.ped-bikeinfo.org/webinars/webinar_details.cfm?id=21. April 10, 2018.

[2]LADOT Livable Streets: https://ladotlivablestreets.org/overall-map/maps.

[3]LADOT Inventory Tool screenshots: http://www.pedbikeinfo.org/pdf/Webinar_STEP_041018.pdf. April 10, 2018.