LaXing

GeoidLife
LaXing project

READER'S GUIDE · LAXING.GEOIDLIFE.COM

How to use LaXing

LaXing is a free, interactive map of the **223 places where LA Metro's A, E and K Line trains cross streets at the same level as cars and people**. It was built to support a citizen-led LA County ballot initiative, the Safe and Efficient Light Rail Grade Separation Act, headed for the 2028 ballot, which would lift those three lines out of street traffic within ten years.

This guide shows what the app can do and how to use its data to understand the initiative for yourself. Open it at **laxing.geoidlife.com**. It works on phones and desktops, needs no account, and is an independent volunteer project by Justin Levy and GeoidLife, not an LA Metro or LA DOT product.

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What LaXing is, in one page

Los Angeles built a modern light-rail network and then ran it through 223 intersections where trains, cars and people compete for the same pavement. At those crossings a train either waits behind crossing gates or, like a car, waits for an ordinary traffic light. The result shows up in two places: in the timetable, where street-running trains crawl at 15–30 mph while the same trains run 40–50 mph where the tracks are separated, and in the collision record, where nine out of ten train-versus-car collisions happen at street-running crossings.

Grade separation means removing the meeting point: the tracks go over the street, under it, or the road is bridged over the tracks, so neither ever waits for, or hits, the other. LA already runs a line that way. The C Line has zero street crossings, zero crossing collisions and zero red-light delay. The initiative would require Metro to do the same for the A, E and K Lines within ten years, paid for by redirecting road and freeway money that voters already approved in Measure R (2008) and Measure M (2016). No new taxes. Longer platforms for six-car trains come with it.

LaXing turns that argument into something you can check on a map. It has six parts:

The Story Map

Ten chapters told over a live map of the city, from the county-wide picture down to single intersections. **laxing.geoidlife.com**

The full crossings map

Every crossing, filterable by line and type, with stations, a train-speed layer and the collision history of each crossing. **/crossings-map.html**

The trip planner

Pick two stations and see today's scheduled time next to the same trip with its crossings grade-separated. **/crossings-map.html#plan**

What it Costs

The price, where the money comes from, what the region spends on highways versus Metro, and the jobs. **/what-it-costs.html**

The source documents

The ballot language, the Streets For All signal-preemption memo and Metro's 2018 Light Rail Operations Update, from the menu.

The data

The 223-crossing inventory as a GeoJSON download, and the collision record behind every popup.

Everything is free to view. An account is optional and only adds a profile that follows you between devices.

Getting in: the front door

The first time you open laxing.geoidlife.com you meet a short welcome page over a map of Los Angeles. It offers four ways in:

1. **Continue with your email.** Type your address and press Continue. It goes on the project's list so the team can keep you posted on the initiative, and the site opens.
2. **Create an account.** Sign up with your email and a password of at least eight characters with an upper-case letter, a lower-case letter, a number and a symbol. A verification code arrives from *LaXing <no-reply@geoidlife.com>* (check your spam folder the first time). An account lets your profile sync across devices; nothing else is behind it.
3. **Sign in** if you already have an account.
4. **View LaXing now, no account needed.** You come in as a guest. A small cookie remembers that for a year on that browser, so you will not see the welcome page again.

Privacy, in short. Guests leave nothing behind but that cookie. An email address goes to the project's signup list and nowhere else. Accounts are kept by Amazon Cognito; the profile fields are the ones you choose to fill in. Choosing *Log out* in the profile drawer ends any session, including guest and email-only sessions, and brings the welcome page back.

The Story Map: ten chapters over a live map

The Story Map is the front page. On a desktop the chapters scroll on the right half of the screen while the map fills the left. On a phone the map fills the whole screen and each chapter card rises from the bottom once the map has flown to its place. Either way, you read, the map moves.

#	Chapter	What it shows on the map
1	Stuck at the Crossing	The whole network: a modern rail system run through 223 intersections.
2	223 places where trains meet traffic	Every crossing as a dot: 106 gated, 103 traffic-signal, 14 unclassified (left out of the story).

#	Chapter	What it shows on the map
3	If you drive: the train is in your lane	Street-running stretches in downtown Long Beach, on Washington Boulevard and Flower Street. 144 of 160 train-versus-car collisions in ten years happened in territory like this.
4	If you ride: your train stops for red lights	The E Line west of Crenshaw (one signal, 40–50 mph) against the stretch east of it (seven signals, 15–30 mph). A rush-hour train loses 4½ minutes at red lights.
5	The cost is not just time	Pulsing markers: E Line crossings where Metro's own log recorded collisions in 2016–18. Gates cut car collisions but concentrate pedestrian ones: 68 of 86 train-pedestrian collisions were at gated crossings.
6	What "grade separation" actually means	Elevate the tracks, trench them, or bridge the road. Any of the three works.
7	The proof is already running	The green C Line: same trains, fully separated, zero crossings.
8	Cities have been fixing this since the 1880s	New York's Grand Central approaches; Melbourne's Level Crossing Removal Project; Perth.
9	Not just faster, bigger	Platforms lengthened for six-car trains (today three cars on the A and E, two on the K).
10	The fix: lift the trains out of traffic	The Act itself: ten years, Measure R and M road funds, trips 40–50% shorter, Long Beach to downtown from 57 minutes toward 30.

Every card ends with a **Sources** line naming where its numbers come from.

Moving around. Scroll (or swipe the card sheet on a phone) and the story advances. The chapter pill on the map shows where you are; its ▲ and ▼ step one chapter back or forward. The circle menu button at the top left opens the menu, whose first section, *Jump to a chapter*, lists all ten. From the third chapter on, a *Back to the beginning* pill appears. The address bar updates with each chapter, so copying the link sends someone straight to the chapter you are reading.

Photos & films. Each chapter ends with its pictures, credited underneath. Six chapters also carry short films under a *Watch* heading: Metro's own footage, from the 1963 streetcar farewell to the 2023 Regional Connector, with a 1993 near-miss reel and a 2020 crash video (marked *shows a collision*). When you scroll to a film it opens in a viewer over the map and starts by itself, muted; the player's own controls pause, rewind and unmute it, *Skip video* closes it, and it closes itself when the film ends.

Untick *Open films as I scroll* in the viewer if you would rather open films only by tapping them; LaXing remembers the choice. Chapter 6's film is a muted half-minute of Metro's 2001 Gold Line promo that also plays quietly in its card.

Looking at the map itself. *Expand map* (the ⤢ pill next to the search) hides the story so you can pan and zoom freely; *Back to story* returns. On a desktop the magnifier-with-a-plus bubble beside the search turns scroll-wheel zoom on and off (by default the wheel scrolls the story). On a phone, pinch to zoom.

Reading the map: legend, layers and popups

The **‹ Legend** tab on the right edge (or the menu row *Legend & map layers*) opens the key. It is the same on both maps.

Crossings by type

- **Gated crossing**: a train behind gates and bells. 106 of them.
- **Traffic-signal crossing**: the train waits for an ordinary traffic light, like a car. 103.
- **Unclassified**: in OpenStreetMap only, no type confirmed. 14.

Metro lines

- **A Line** (Long Beach – Azusa, through downtown)
- **E Line** (Santa Monica – East LA)
- **K Line** (Crenshaw – LAX area)
- **C Line**, shown for comparison: fully separated, zero crossings. The B and D Lines are subways and are left out.

Other layers: *Metro stations* (stops with an at-grade crossing look different from stops without one; 90 stations, with photos of crossing-adjacent stops), *street-running slow zones*, and *documented collision sites*, the pulsing markers from chapter 5.

On the Story Map, crossings, slow zones and collision markers normally follow the story as you scroll; anything you toggle stays until the next chapter changes the view. Station and line toggles are always yours.

Popups. Tap any crossing dot. The popup names the street, the line and the crossing type, and then its collision history, for example *11 collisions reported to the FTA, 2015–2026 · 11 with vehicles · 5 injuries*, or *No collisions reported to the FTA, 2015–2026*. Those counts come from the Federal Transit Administration's National Transit Database, which Metro reports every collision to; LaXing attaches each event to the nearest crossing within 150 metres. Events the database records as suicides are left out of the tallies. Tap a station for its photo and lines.

Search. The search pill (desktop) or the magnifier circle (phones) accepts a street name or a line: type *Crenshaw*, *Washington* or *E Line*, pick a suggestion, and the map flies there. On the Story Map it stays put until you scroll on.

The full crossings map: explore every crossing

Open **laxing.geoidlife.com/crossings-map.html** from the menu (*Full interactive crossings map*) or the *Explore every crossing* button at the end of the story. It is the whole inventory with no narrative in the way.

The **Layers, filters & trip planner** panel (top left on a desktop; the sheet at the bottom on a phone) lets you:

- show or hide each **crossing type** and each **line** (A, E, K, plus the C Line for context);
- add the **Metro stations** layer, 90 stops with photos;
- add **Train speed (schedule)**, which colours the track by the speed Metro's own timetable implies, so the slow street-running stretches stand out without anyone's opinion involved;
- open the **trip planner** (next section).

Everything from the legend above applies here too: the same colours, the same popups with collision history, the same search.

Take the data with you. The menu row *Download the dataset (GeoJSON)* saves all 223 crossings with their line, type and source. GeoJSON opens in QGIS, ArcGIS, geojson.io, Google Earth (after conversion) and in GeoidLife's own Spatial Analysis and File Converter tools at geoidlife.com.

Plan a Metro trip, with and without the crossings

The planner answers one question: how much of your trip is spent at crossings? Open it from any page's menu (*Plan a Metro trip*), from the Trip planner link, or directly at **laxing.geoidlife.com/crossings-map.html#plan**.

1. **Pick a From and a To station** on the A, E or K Line (the ↑↓ button swaps them).
2. **Calculate the trip.** You get today's scheduled minutes on the left and the same trip with every crossing grade-separated on the right, with the minutes saved between them.
3. **Open Route details** for the legs, the transfers, and the number of signals and gates on the way.
4. **Tick "Draw the grade-separated version on the map"** to see the route drawn without its crossings, then *Show on the map* to frame it.
5. **Go, or keep it.** *Open in Google Maps* and *Open in Apple Maps* hand the same stations to your directions app for a real trip today; *Print / save as PDF* keeps the comparison.

How the estimate is made. Today's minutes come from LA Metro's published timetable (GTFS), with five minutes allowed per transfer. The grade-separated version removes the delay at every crossing on your route, 11 seconds per traffic signal and 3 seconds per gate, figures taken from the E Line delay measurements in the Streets For All memo, and never claims more than a 40% saving. It is an estimate of time lost at crossings, not a promise about a future timetable; it does not include the higher running speeds or longer trains the initiative also projects.

On a phone the results dock as a sheet at the bottom with the route visible above it; pull the bar up for details, swipe it down to close. *Edit* goes back to the stations.

What it Costs: the money, in plain terms

Open **laxing.geoidlife.com/what-it-costs.html**, or pull the **‹ $ Costs** tab on the right edge of either map, which slides the page in beside the map. It is written for the people who will vote on the initiative.

- **How much?** Roughly **$15–25 billion** over a ten-year build, depending on inflation and how the work is contracted: about $1.5–2.5 billion a year, or $67–112 million per crossing averaged over all 223, which is 15–26% of Metro's current $9.7 billion annual budget each year. For scale, Melbourne is removing 110 crossings for about US$10 billion between 2015 and 2030, has finished 88 of them, and keeps re-electing the program.
- **Where does the money come from?** From road and freeway funds voters already approved: an initial **$9 billion transfer from roadway projects**, with Measure M's Local Return dollars and federal and state grants on top. Measure M has no sunset date, so road programs resume once the separations are built.
- **Highways still get most of it.** Charts of what the federal, state, county and Metro budgets spend on highways versus Metro today.
- **Ten years of road money moves to the rails, then moves back.** The year-by-year shift.
- **Jobs.** Roughly **18,000–22,000 jobs a year** for ten years, on site and across the region.
- **Quick answers.** Disruptions (very little; separations are built beside or above running tracks), speed (up to 20 minutes back on a street-running trip), taxes (none new), road projects (they wait, then resume).

Read the fine print. The cost, funding, timeline and jobs figures are Justin Levy's financial projection for the initiative (September 2026). They are estimates, not Metro figures. The comparison numbers come from public budgets, each linked at the bottom of the page, so you can follow every one to its source.

The source documents and the data

The menu's **Source documents** section opens the primary material the app is built on:

- **Ballot initiative language**: the text of the LA County Safe and Efficient Light Rail Grade Separation Act. Read it before you decide anything; the app is an illustration of it, not a substitute.
- **Signal preemption memo** (Streets For All, 2026): the delay and speed analysis behind the "4½ minutes at red lights" and the per-signal figures in the planner.
- **Metro Light Rail Operations Update (2018)**: Metro's own line-by-line collision log and grade-crossing policy, the source of the ten-year collision and fatality counts.

The data behind the maps:

Dataset	What it is	Where it comes from
Crossing inventory	223 crossings: 106 gated, 103 traffic-signal, 14 unclassified	LA Metro's crossing inventory merged with OpenStreetMap level-crossing data (August 2026) and cross-verified; points confirmed by both sources snap to OSM geometry
Collision history	Every LA Metro light-rail collision since 2015, joined to the crossings	FTA National Transit Database, Major Safety and Security Events; updated monthly, about three months behind
Train speeds and trip times	Scheduled speed per segment; minutes between stations	LA Metro GTFS timetable
Photos	Stations and crossings	Wikimedia Commons, Creative Commons or public domain, credited under each picture
Films	Story Map chapters and the overview page	Metro's own films on YouTube and Vimeo behind a play button (nothing loads until you press it), plus a muted excerpt of Metro's 2001 Gold Line promo, a public record; credited under each clip
Basemap	The streets under everything	© Mapbox © OpenStreetMap contributors

The first collision build (data through June 2026) holds 618 collisions on Metro light rail since 2015. 398 of them happened at one of the 223 crossings, touching 131 of them, with 22 deaths and 202 injuries; Lincoln Boulevard and Raymond Avenue on the E Line top the list with 11 and 10. The rest were at stations, on exclusive right-of-way, or too far from any track to place.

Seven ways to use LaXing to understand the initiative

1. **Find your own crossing.** Search the street you drive or walk across. Read its type, then tap it for the collision history. Turn on *documented collision sites* to see whether it is one of the pulsing ones.
2. **Time your own commute.** Plan the trip you actually take. The minutes saved are specific to your route, and the route details show how many signals and gates you roll through today.

3. **See the slow stretches without taking anyone's word for it.** On the full map, switch on *Train speed (schedule)*. The timetable itself shows where trains crawl, and chapter 4 explains why the same train does 40–50 mph a few stops away.
4. **Check the proof.** Chapter 7 and the C Line toggle on the full map: a line in the same city, with the same trains, that has no crossings at all.
5. **Follow the money.** Read *Where does the money come from?* and the quick answers on What it Costs, then open the ballot language and find the funding clauses yourself.
6. **Weigh the safety argument.** Chapter 5 and the popups: gates reduce car collisions but concentrate pedestrian ones; only full separation ends both. The FTA counts in every popup let you test that claim crossing by crossing.
7. **Take it to someone else.** Every LaXing link shows a preview card when shared, the address bar carries the chapter you are on, the GeoJSON download opens in any GIS, and the overview page at `geoidlife.com/laxing` tells the project's story in two minutes.

Tips for phones, desktops and sharing

On a phone. The map is the background of everything; the story is a sheet over it. The three pills above the sheet are the chapter pill (left, with ▲ ▼), *Back to the beginning*, and *Expand map* (right). Pinch to zoom. For an edge-to-edge app with no browser bars, use the menu's *Display* section: *Install LaXing* where the browser offers it (Android, desktop Chrome), or on an iPhone use Share → *Add to Home Screen*. *Full screen* hides the browser bars where the browser allows it.

On a desktop. The floating circle menu, search pill and wordmark are the default. If you prefer a classic navigation bar, choose *Switch to the top bar* under *Display*; the bar has a ◯ *Float* button to switch back, and the choice is remembered. The scroll-wheel zoom bubble sits beside the search.

Your profile. Menu → *Your profile* (or the Profile button in the top bar): a photo, display name, bio, LinkedIn, Instagram, website, contact email and phone. Everything saves in your browser; when you are signed in it also syncs to your account so it follows you across devices. Guests see links to sign in or create an account in the same drawer.

Sharing. A link to any page, including a chapter link, shows a title and picture when pasted into a message or a post. The *Support on GoFundMe* button in every menu goes to the initiative's campaign.

Accessibility. The pages respect your system's reduced-motion setting, work without an account, and every control has a label for screen readers.

Questions people ask

Is this an official Metro or LA DOT site? No. LaXing is an independent, volunteer project by Justin Levy and Nico Tek Solutions / GeoidLife, built to support a citizen-led initiative. Neither agency endorses it.

Does it cost anything, or require an account? No and no. Everything is free to view as a guest. An account only adds profile sync.

How current is the data? The crossing inventory is from August 2026. The collision history refreshes from the federal database, which updates monthly and runs about three months behind. The cost figures are a September 2026 projection.

Why only the A, E and K Lines? They are the lines with street crossings. The C Line is fully grade-separated already (that is chapter 7); the B and D Lines are subways.

Something looks wrong on the map. Sources differ and streets change. The about page at **geoidlife.com/laxing** says who builds LaXing and how to reach the studio.

Where is the latest version of this guide? At **laxing.geoidlife.com/assets/laxing-user-guide.pdf**, and in every page's menu under *Help*.

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