

OSM's BIG F@#KING Problem

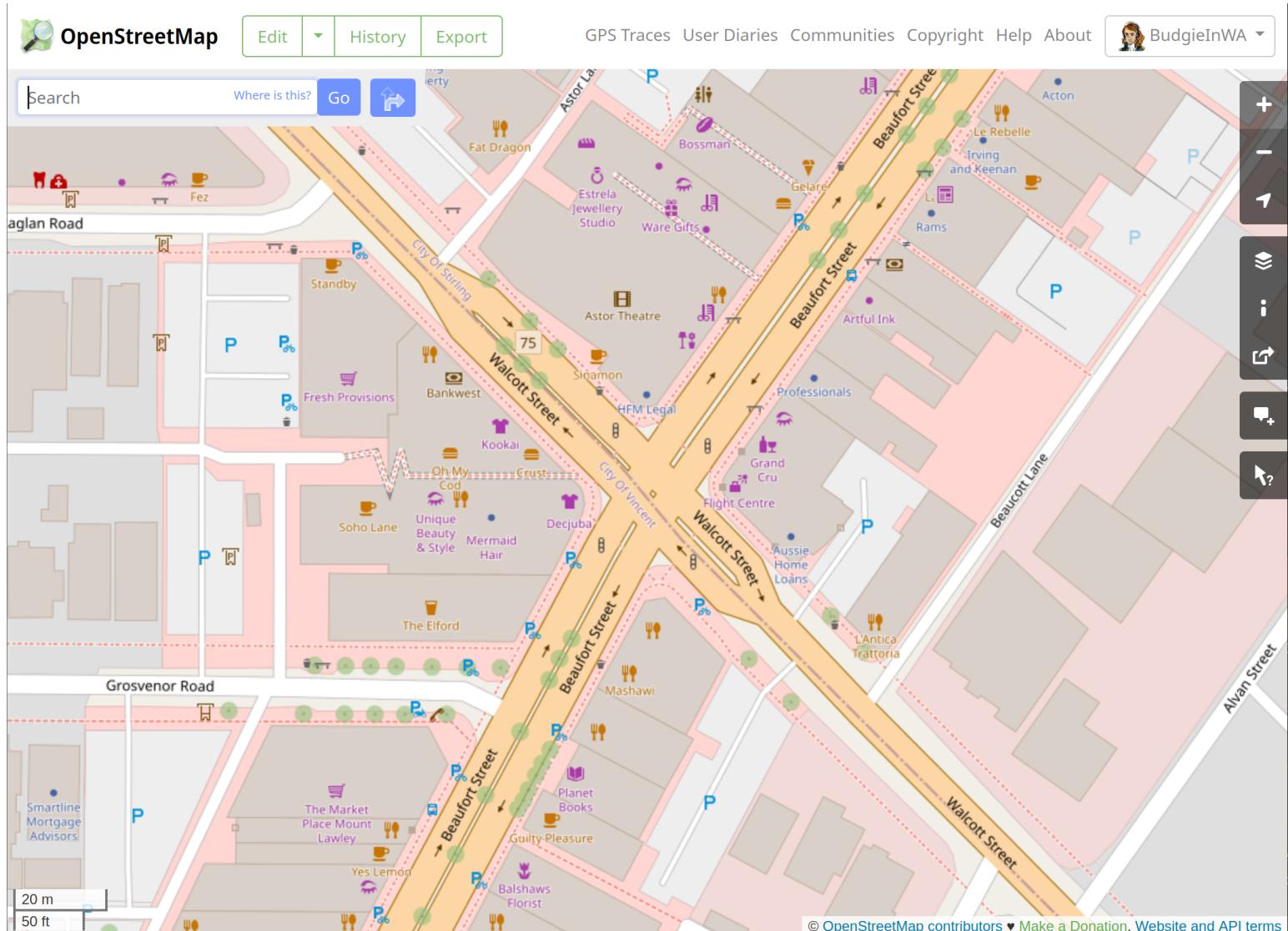
Ben Ritter /BudgieInWA

w/ Dustin

Andy

OpenStreetMap:

Crowdsourced Map of The Entire Globe

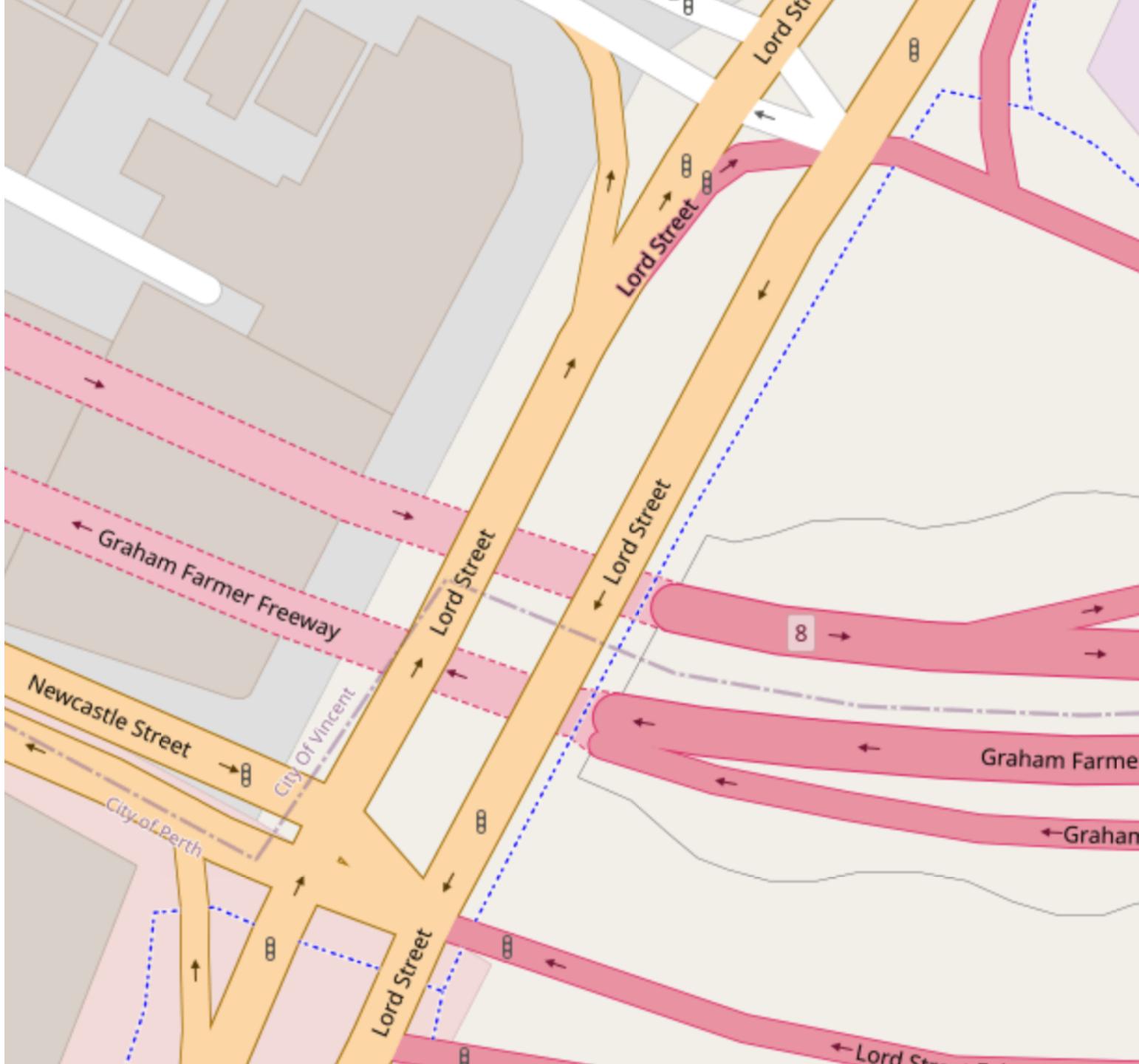


OpenStreetMap

- Data is contributed by individual enthusiasts
- Data is free to use for anything* (with attribution)
 - Maps: osm.org, Organic Maps, OSMAnd, AllTrails
 - Games: Pokemon Go, The Golf Club 2019
 - Routing: Grab delivery
 - Research: Walkability
 - ...

the street network is world-class

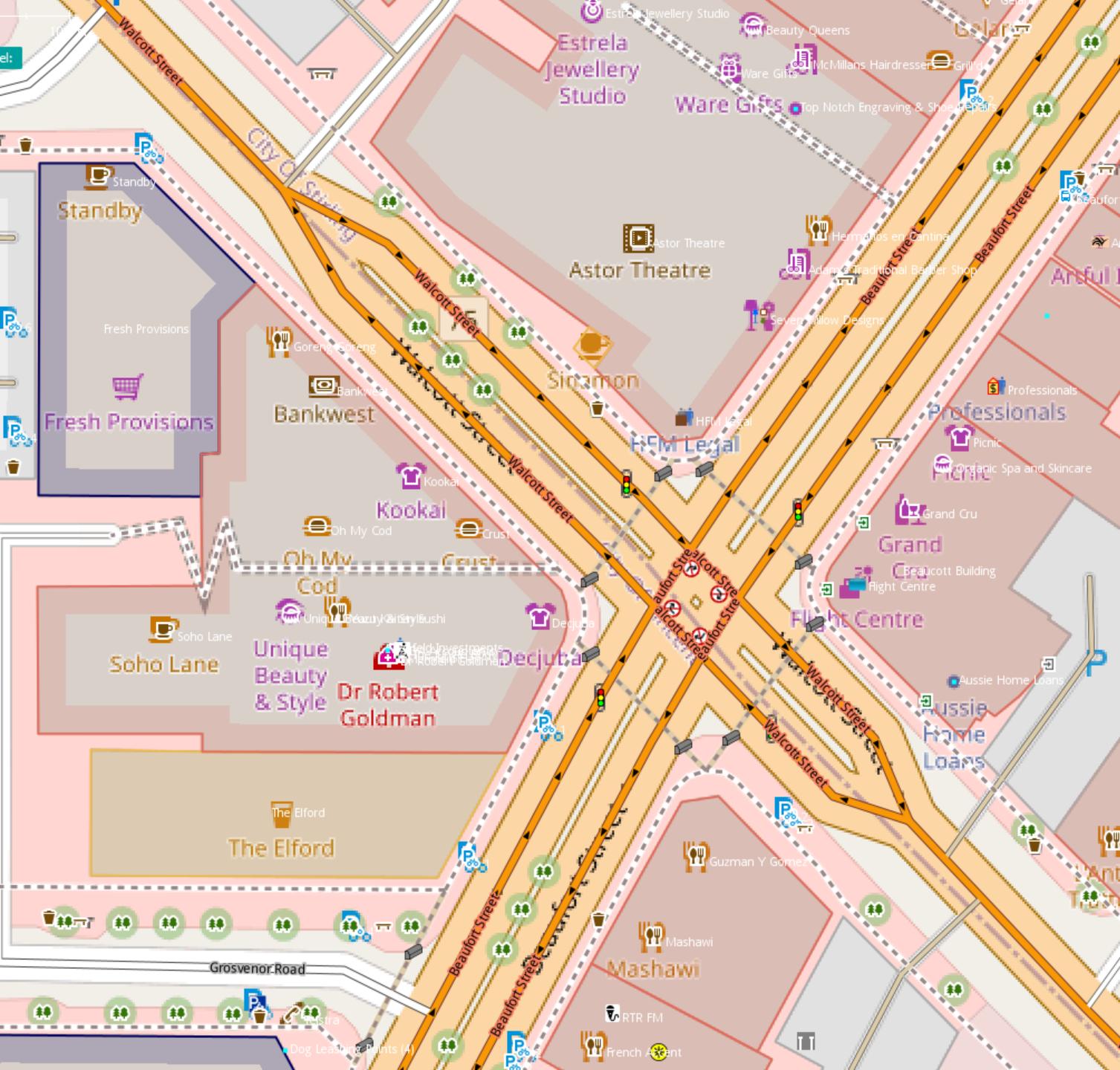
Connectivity
Crossings and Traffic
Calming
Turn Restrictions
Lane Counts
Lane Restrictions



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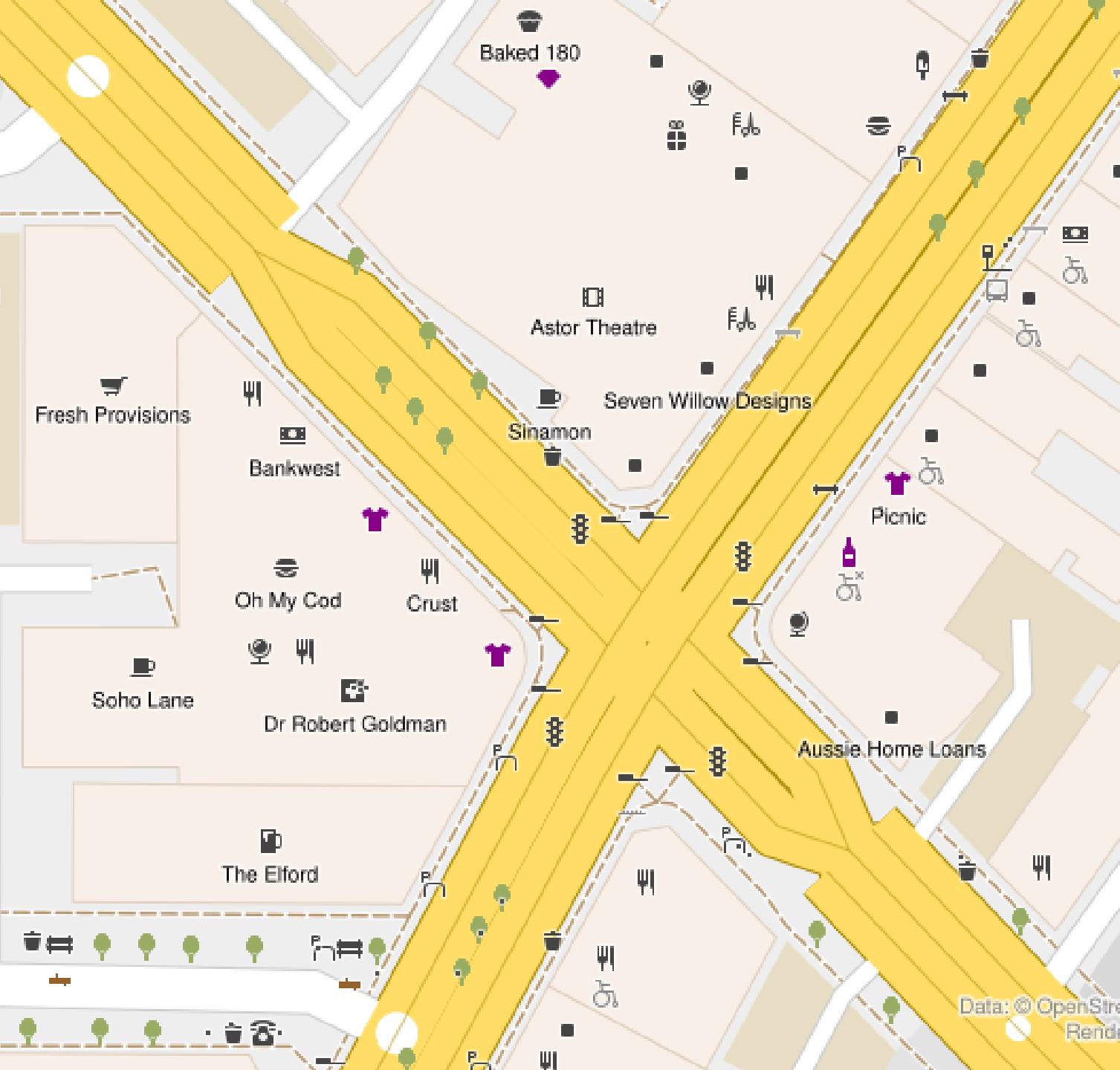
Zoom ...

OSM draws roads like every other map: fixed width.



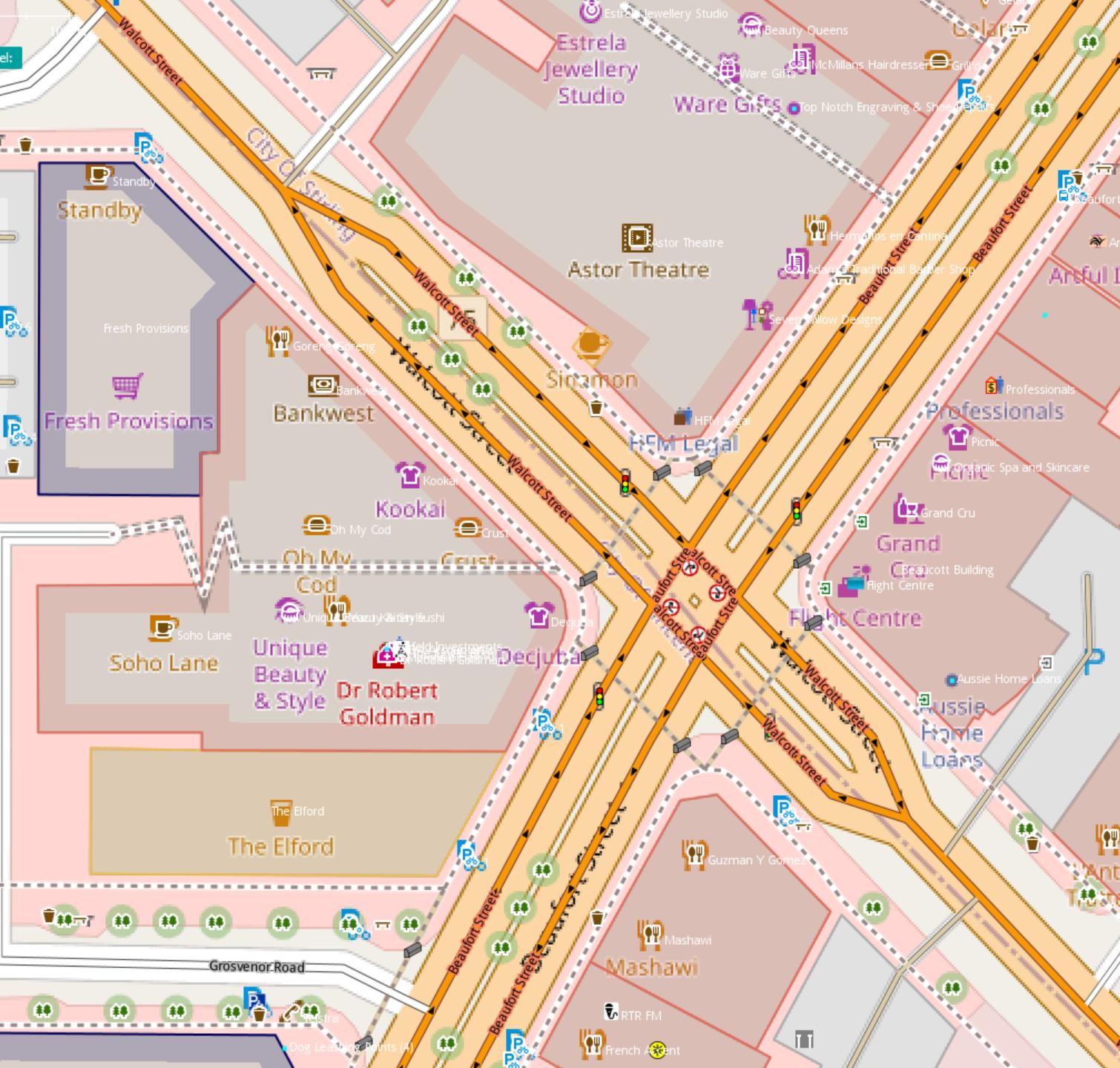
Zoom ...

What's going on here? It's just a traffic island.

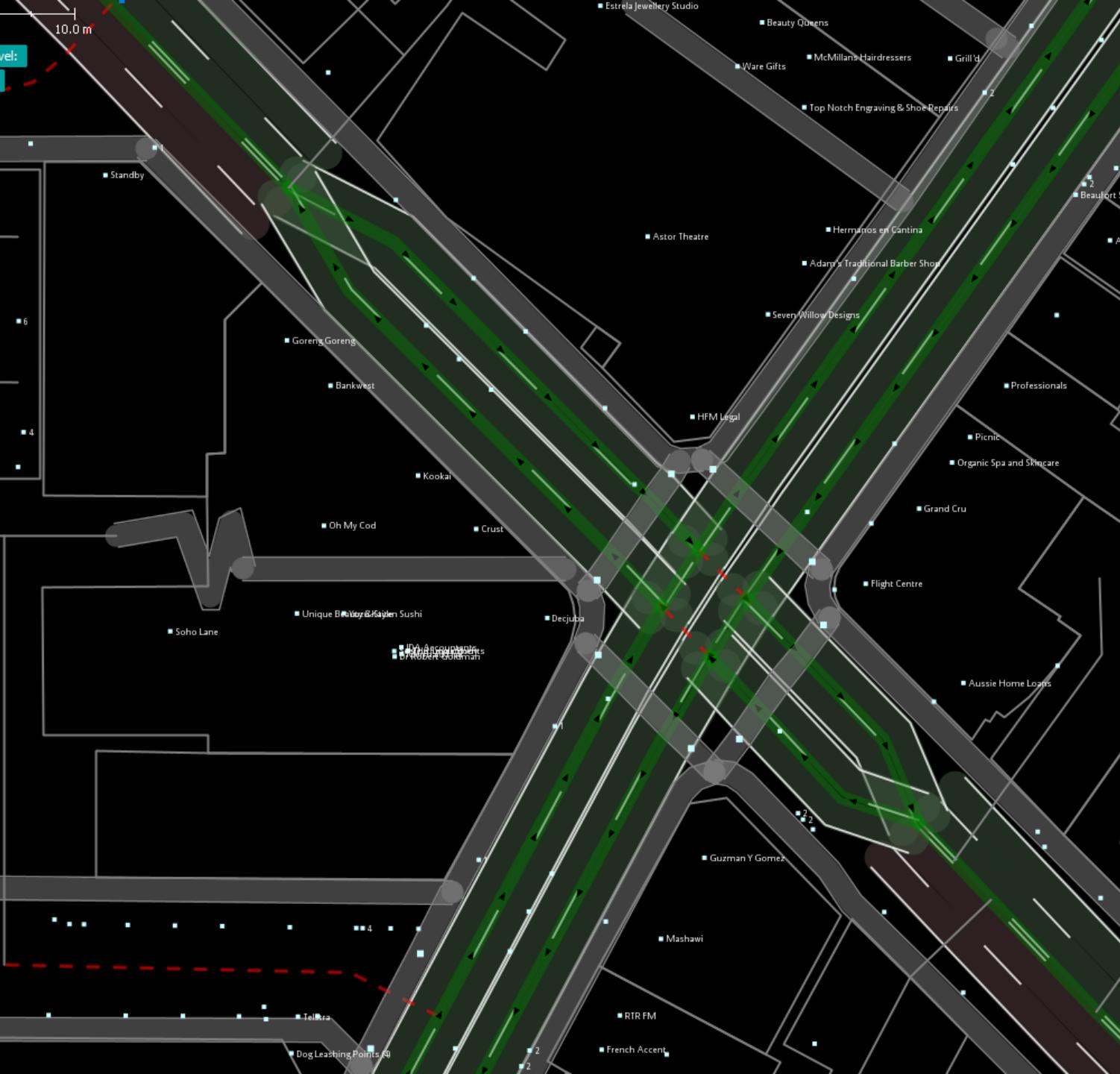


... Enhance!

We can tag more details,
like individual lanes.



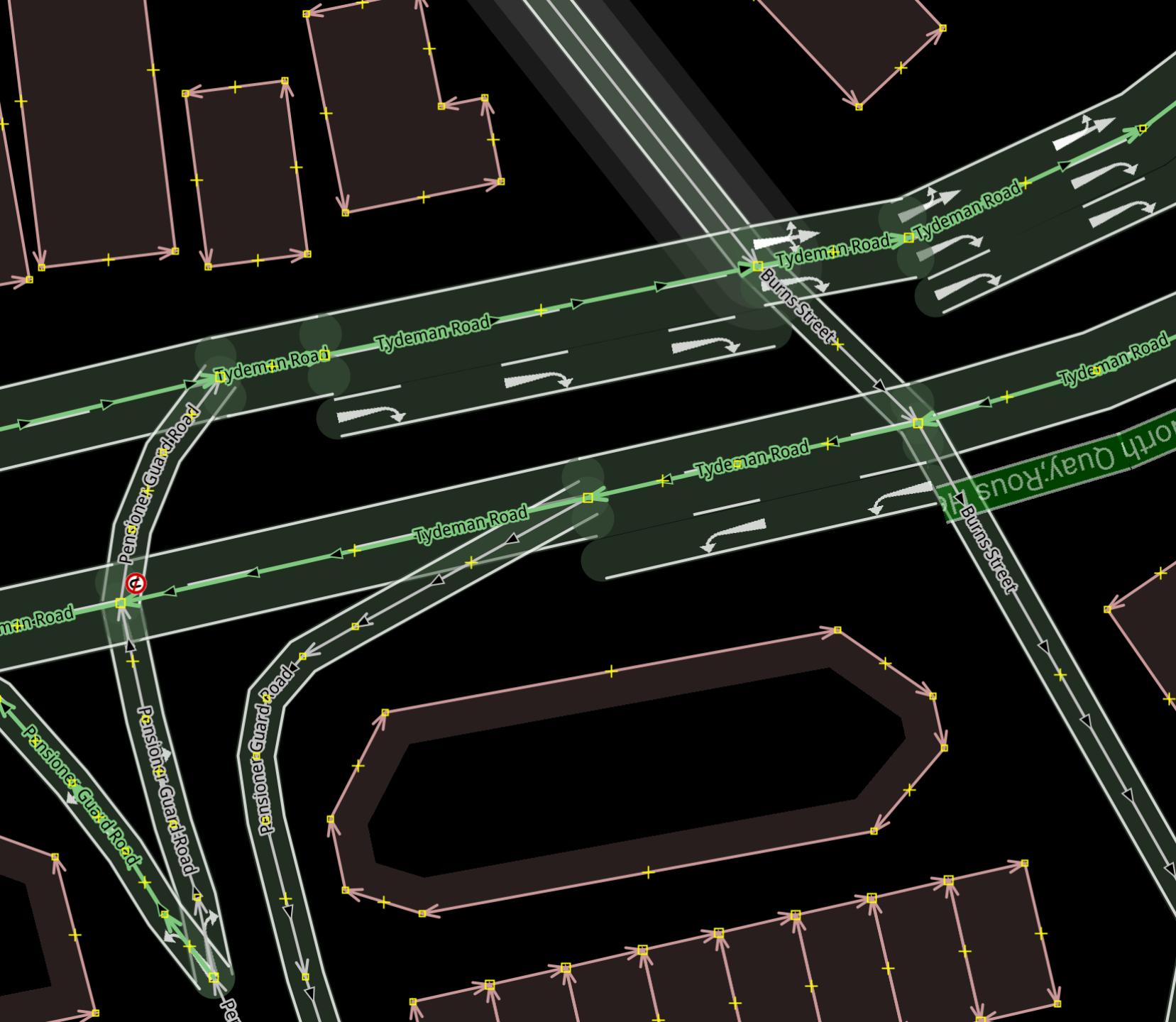
... Enhance!
The centerline geometry is
not fit for this purpose.



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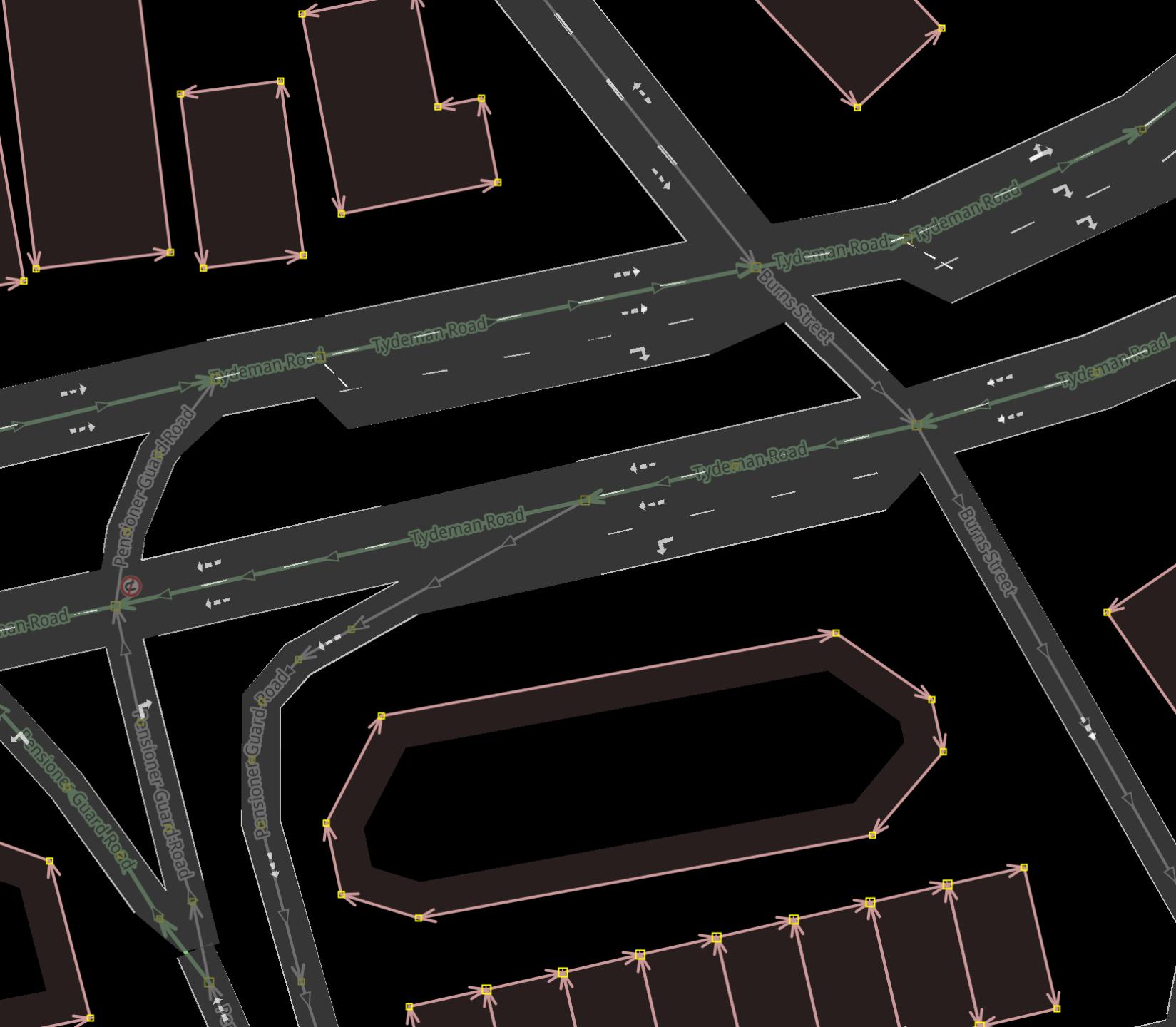
The centerlines have to join up

The `placement` tag
gets us closer...



The centerlines have to join up

But we need to look at
more context



How'd I get here?

JOSM 'Lanes' Plugin - Bjorn Rasmussen

A visual lane attribute editor for JOSM. github.com/BjornRasmussen/Lanes

A/B Street - Dustin Carlino

Transportation and traffic simulation for creating friendlier cities (driven by OSM data).
github.com/a-b-street/abstreet

osm2streets - Dustin Carlino & Ben Ritter

A software library for interpreting the OSM data, born out of A/B Street implementation.
github.com/a-b-street/osm2streets

JOSM2Streets - Ben Ritter

A visual road editor for JOSM powered by osm2streets.
github.com/BudgieInWA/JOSM2Streets

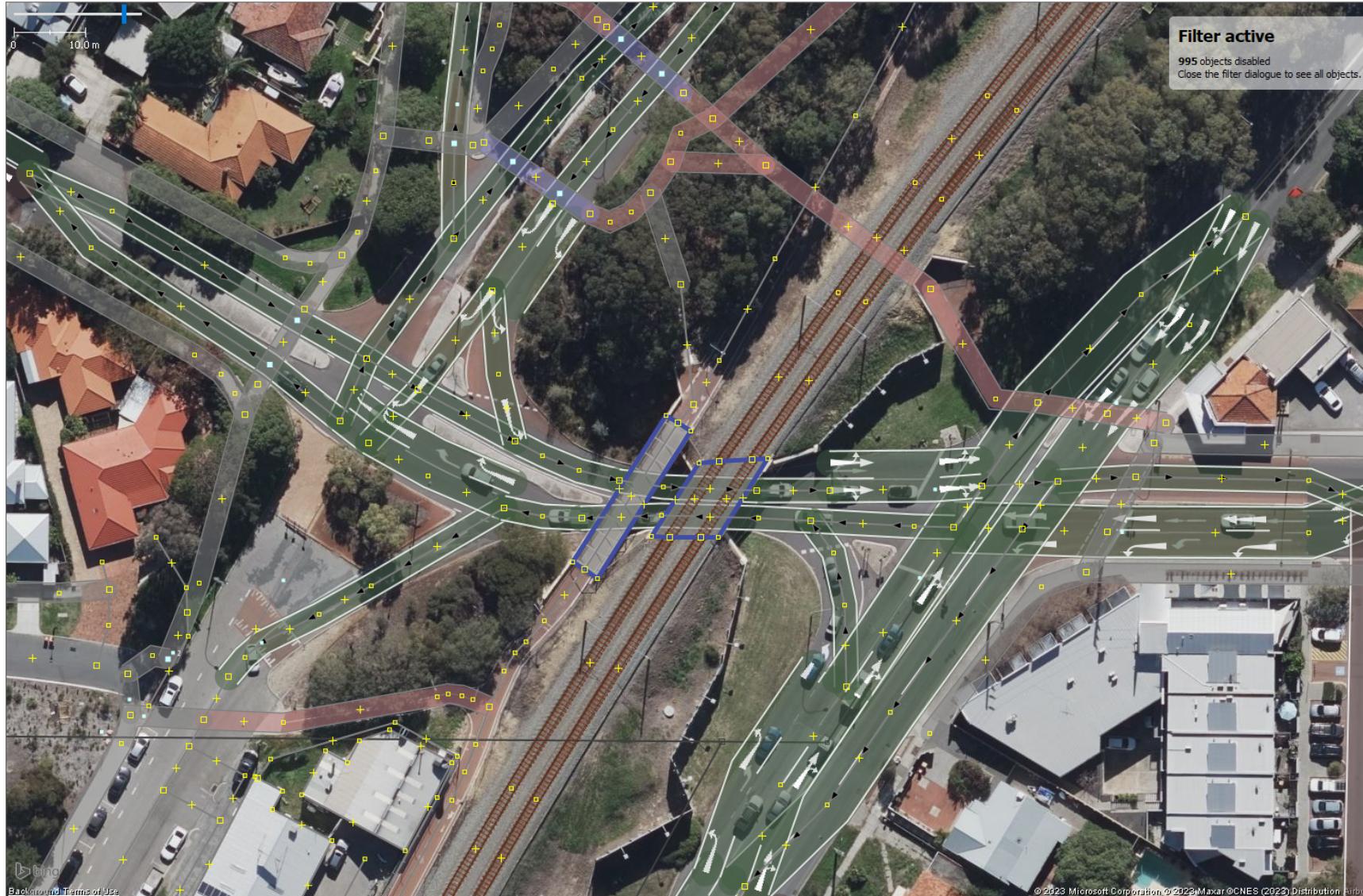
I was impressed by the Lanes Plugin

Written in Java (because JOSM is in Java).

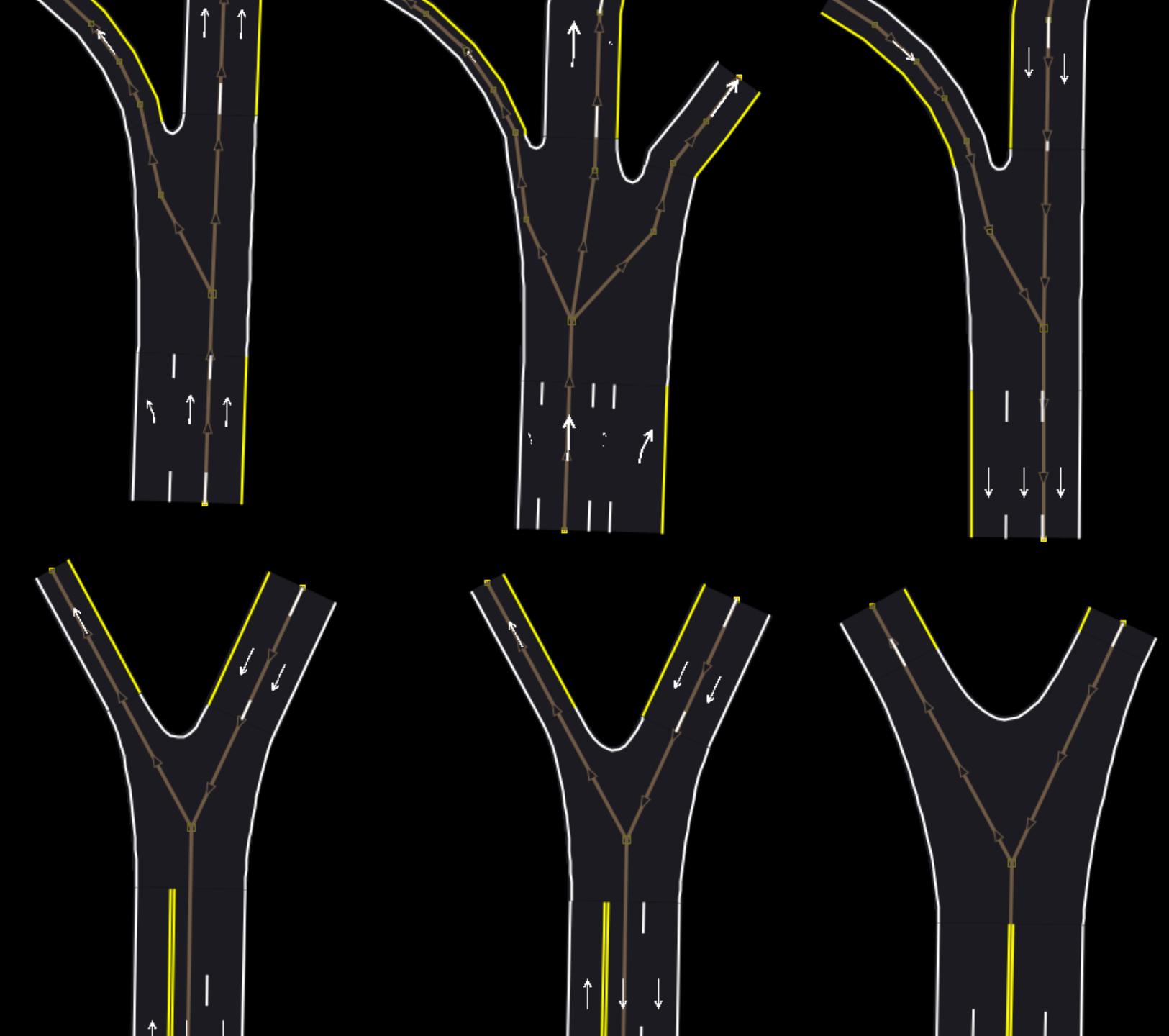


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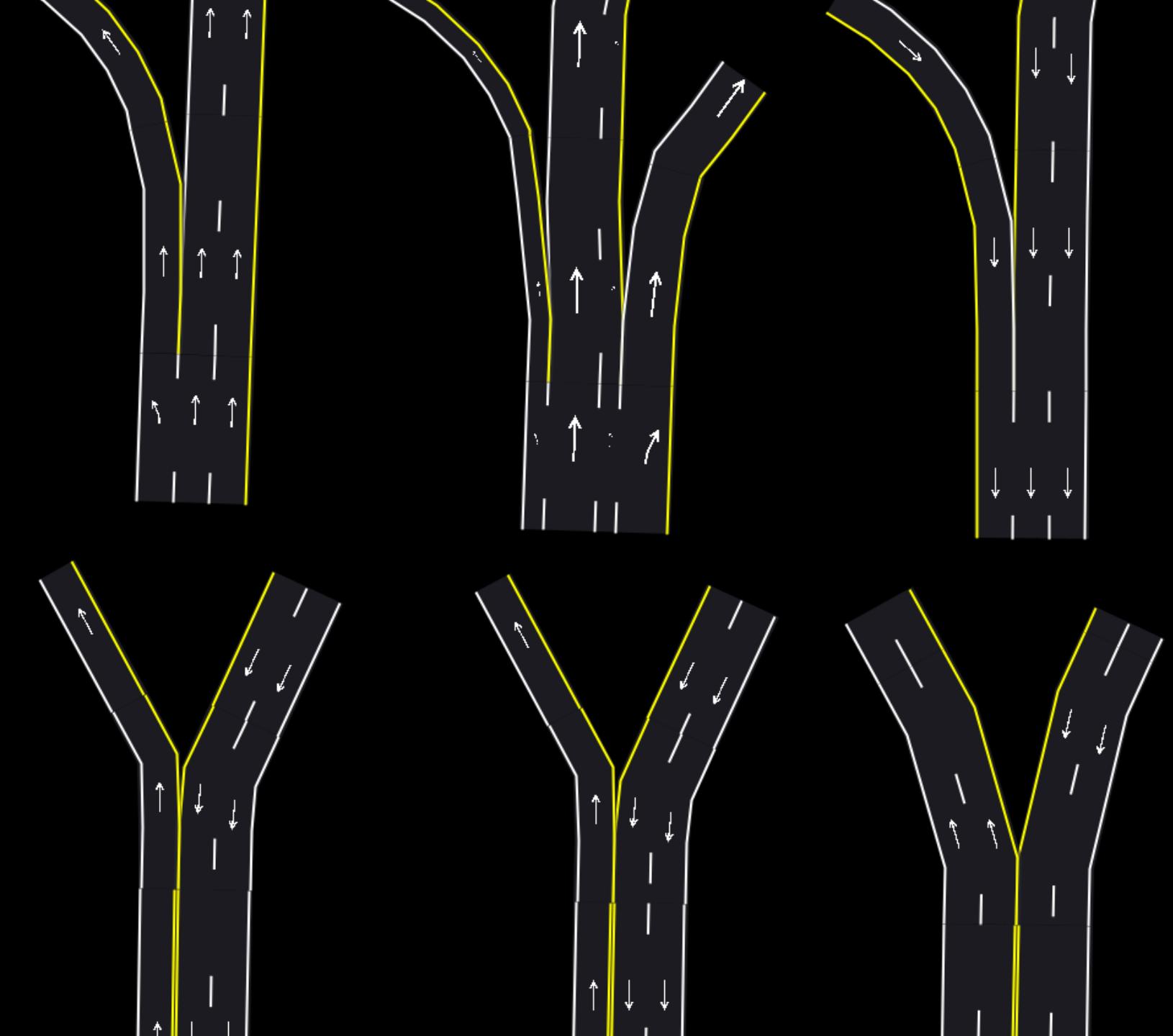
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I started
working on
adding details
to some
intersections

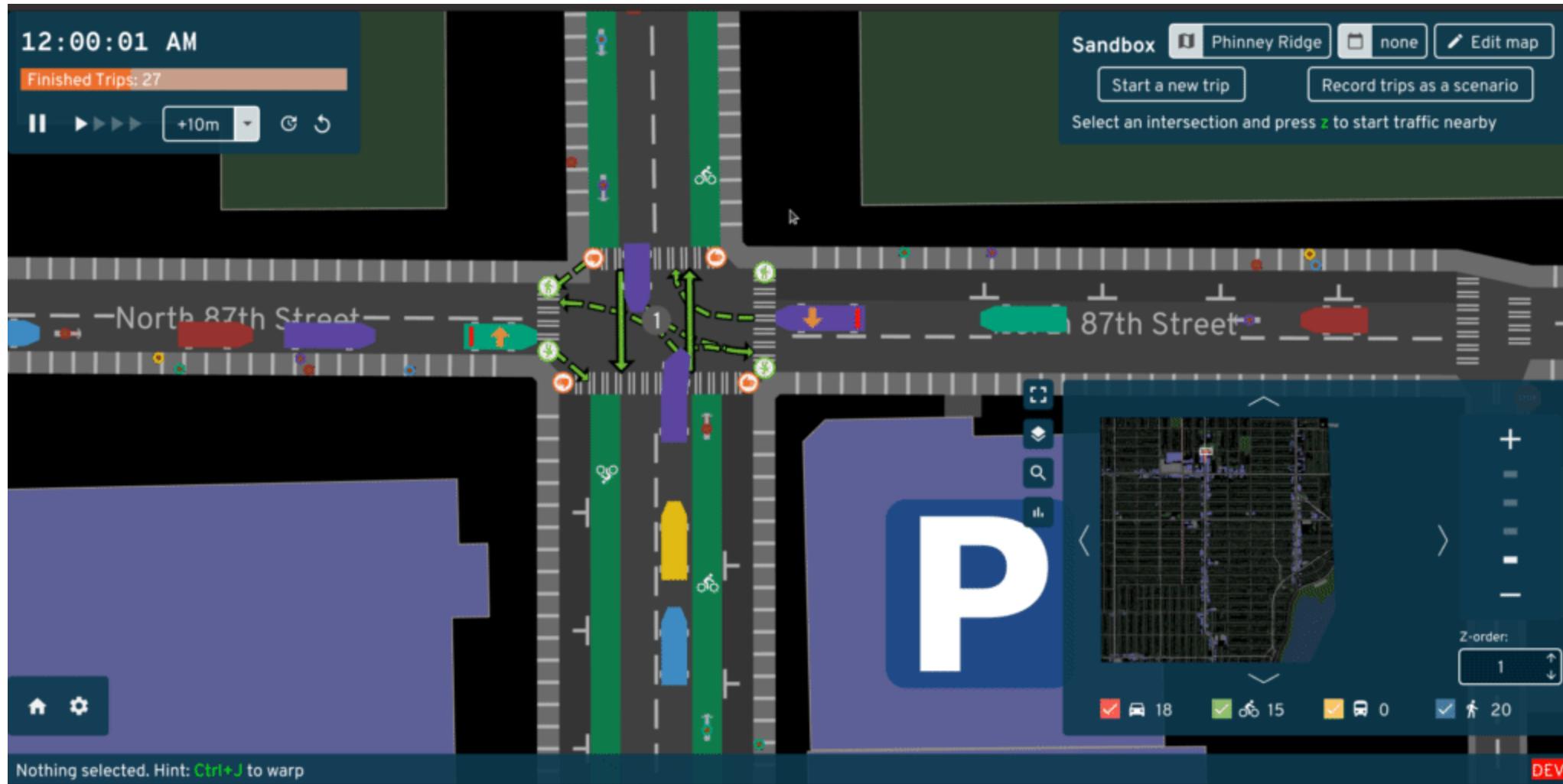


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I found A/B Street

Written in Rust. Compiled to WebAssembly to run in the browser.

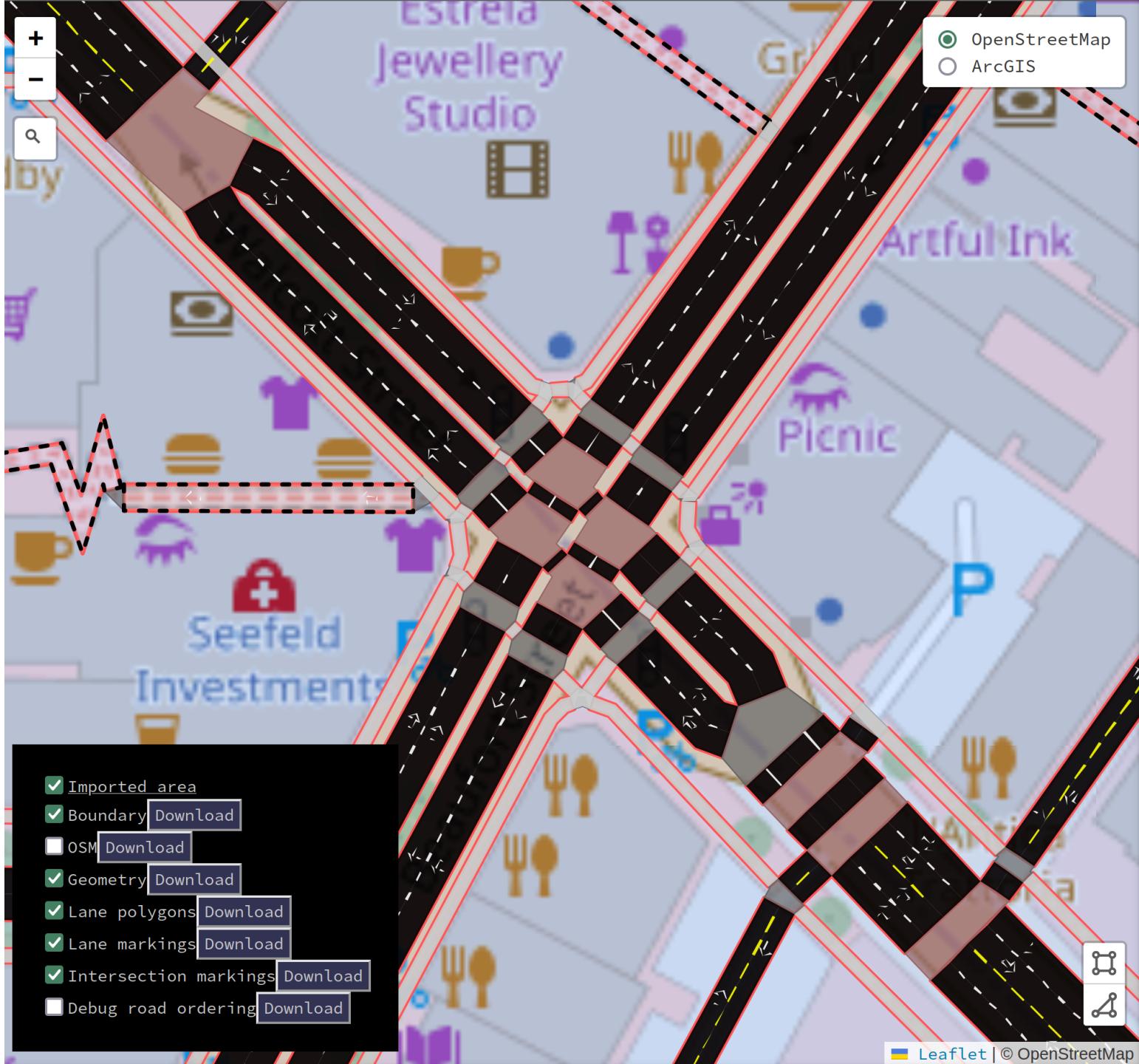


Dustin & I started osm2streets

Written in Rust.

Compiled to WebAssembly
for JavaScript.

Compiled to a native lib for
everywhere else.



I started JOSM2Streets using osm2streets

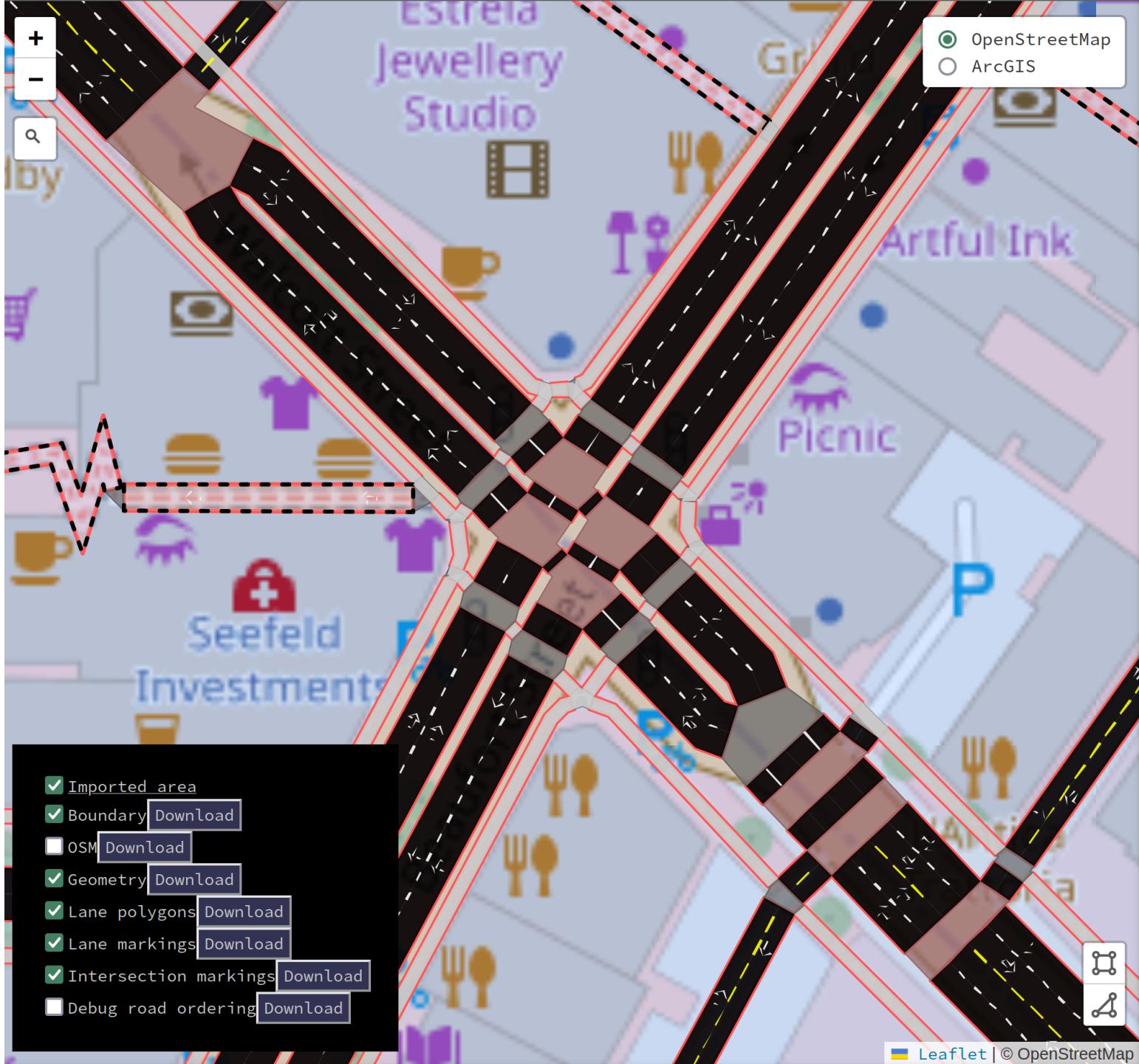
Written in Java, loading
osm2streets.so via JNI.



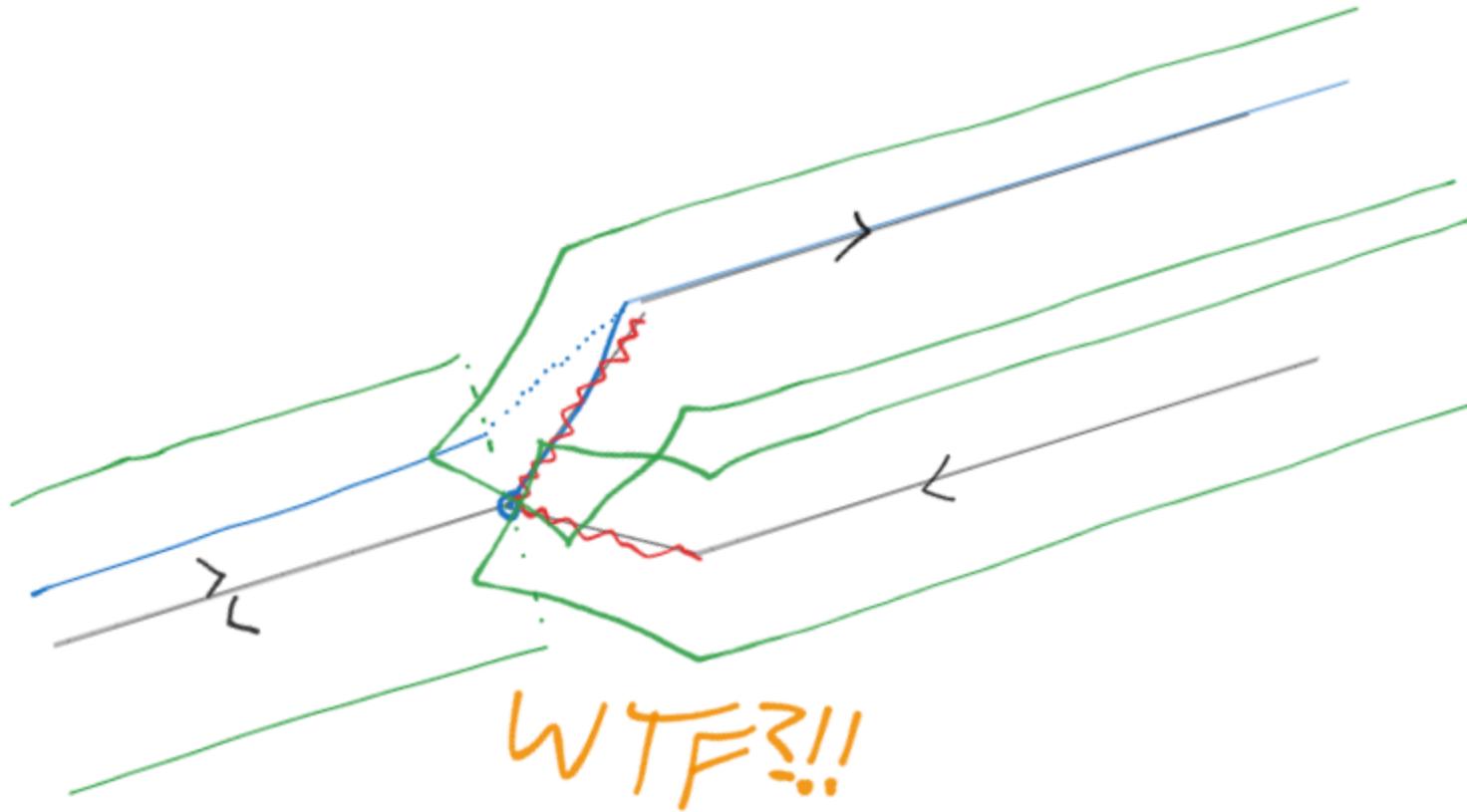
osm2streets has a long way to go

We did some
brainstorming last week.

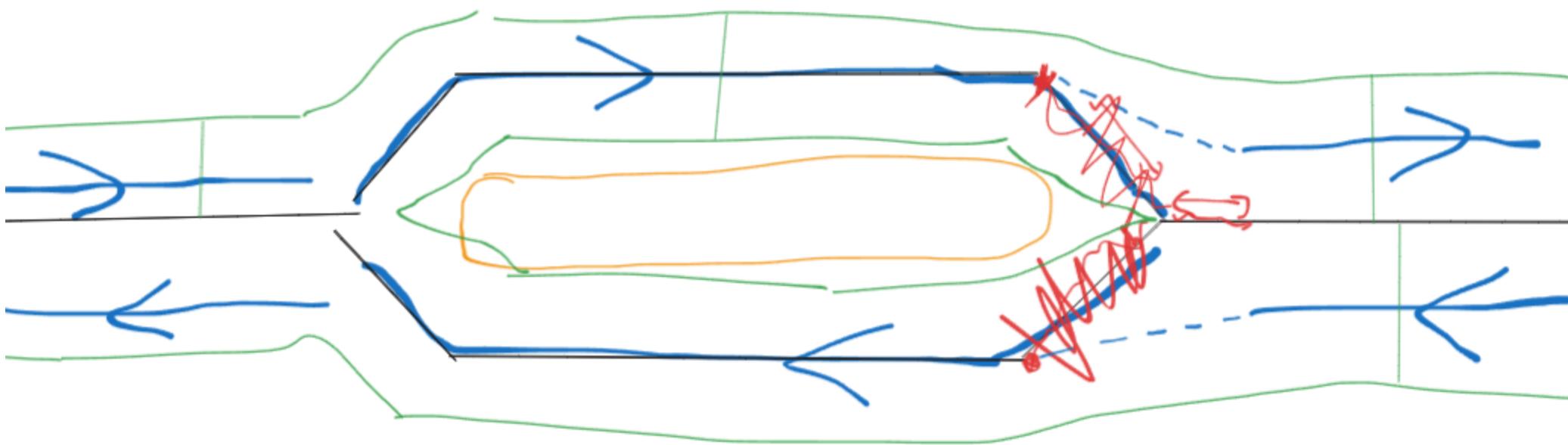
Lets talk about some of
those ideas.



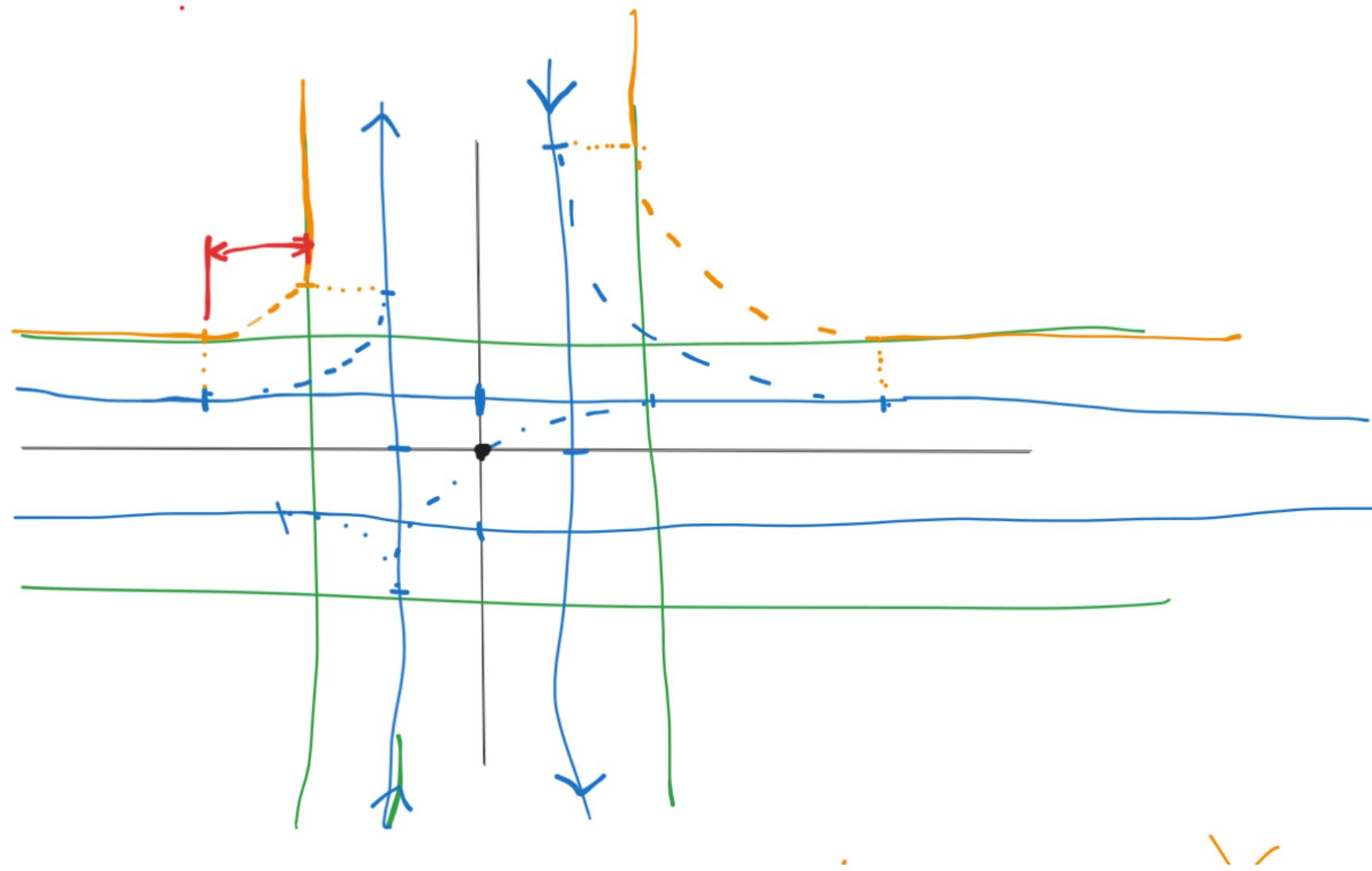
What the fork?



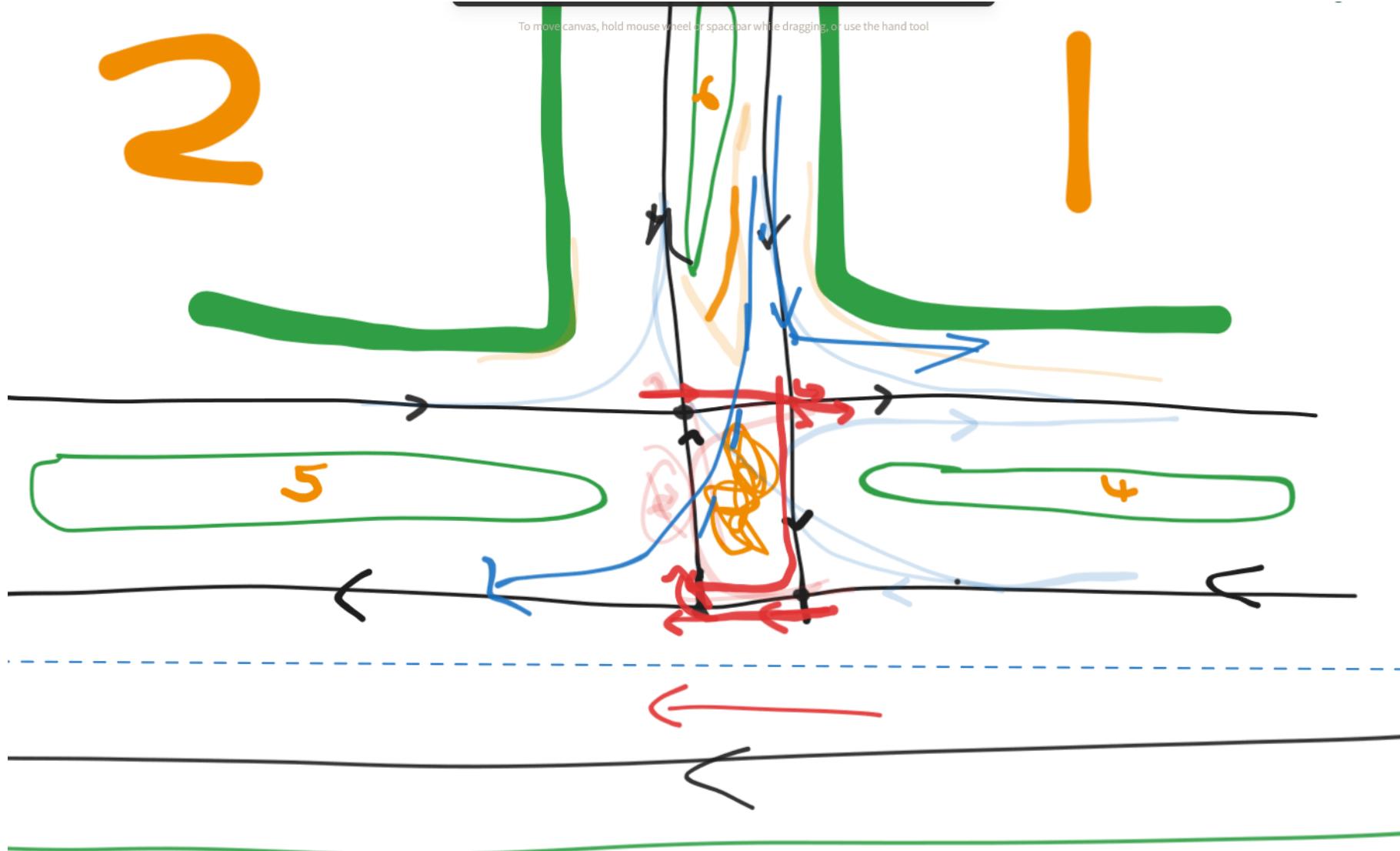
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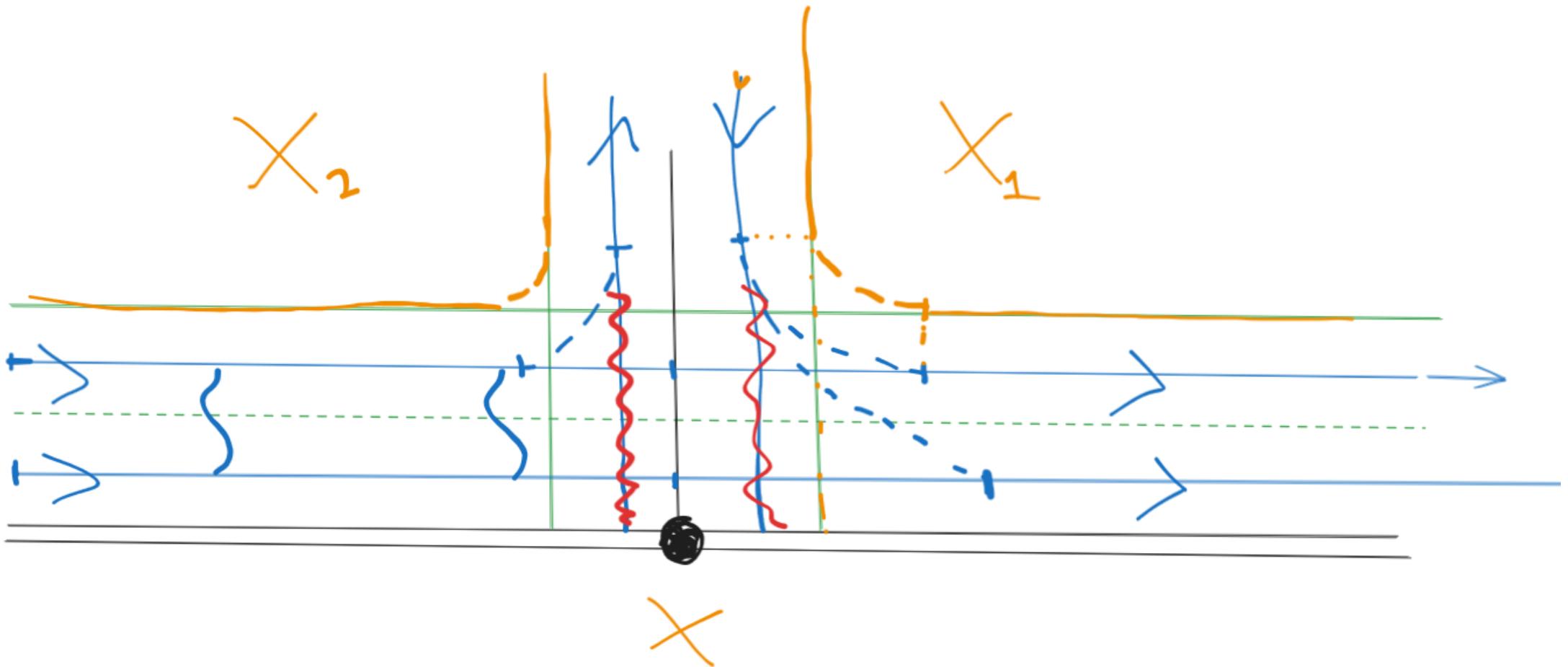
We need the full movement graph



We need the whole logical intersection



We need lane-level movements with adjecencies



Help us out!

If you have ideas or references or want to write code or use osm2streets, get in touch!

github.com/a-b-street/osm2streets

Ben Ritter

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anywhere.com/BudgieInWA