

OSMs BIG

F@P KING
Problem

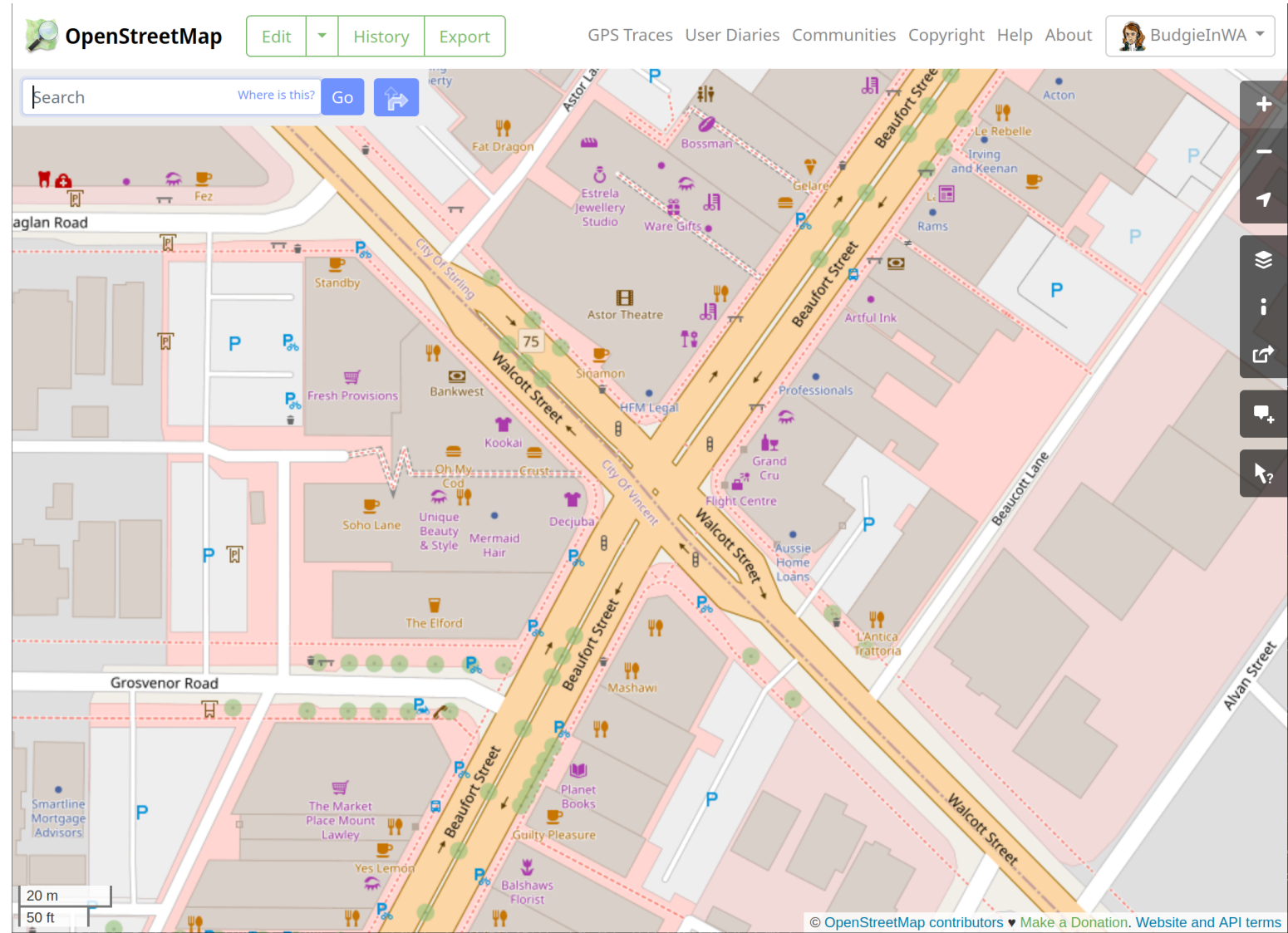
Ben Ritter /BudgieInWA

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



the street network is world-class

Connectivity

Crossings and Traffic

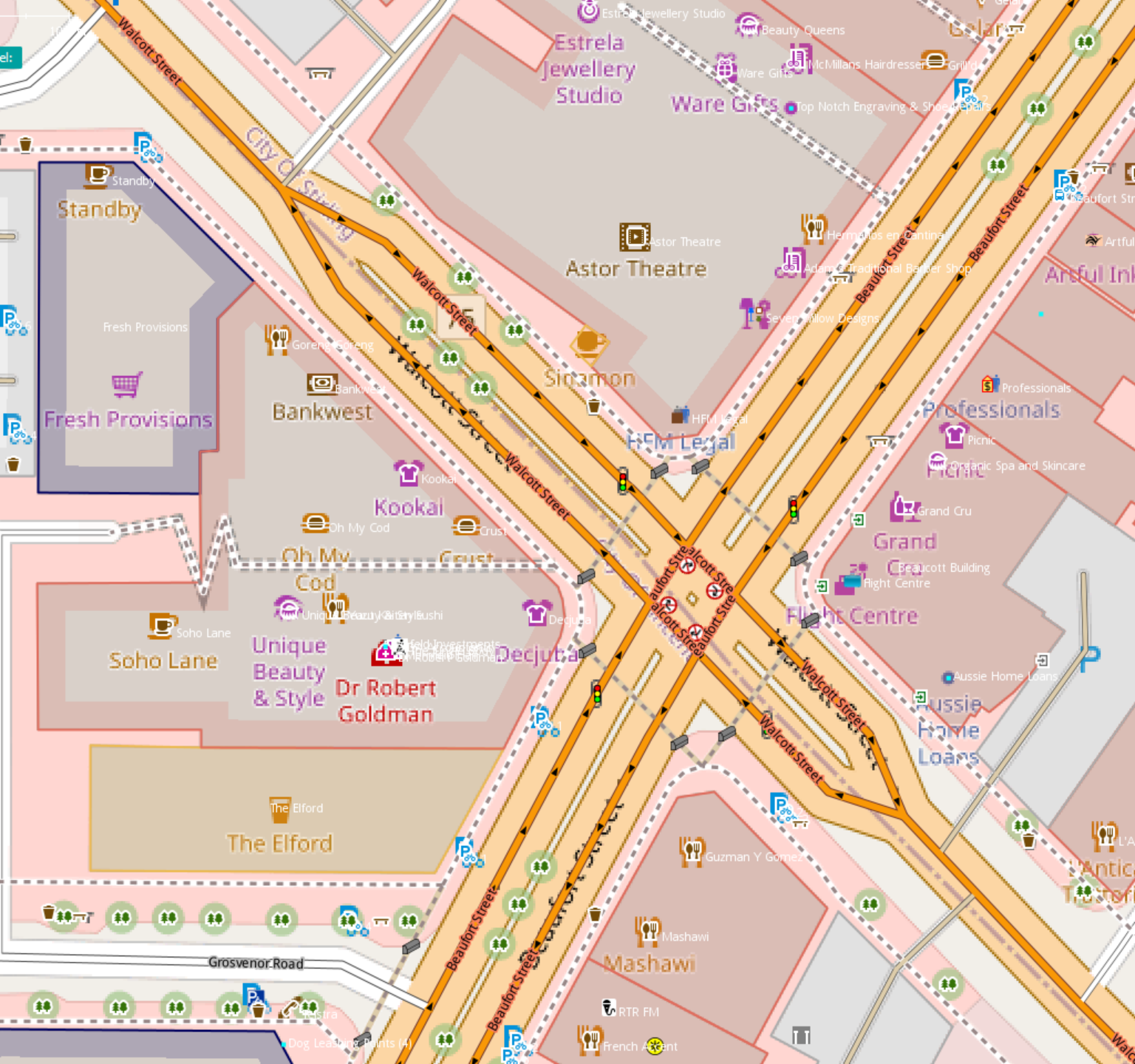
Calming

Turn Restrictions

Lane Counts

Lane Restrictions





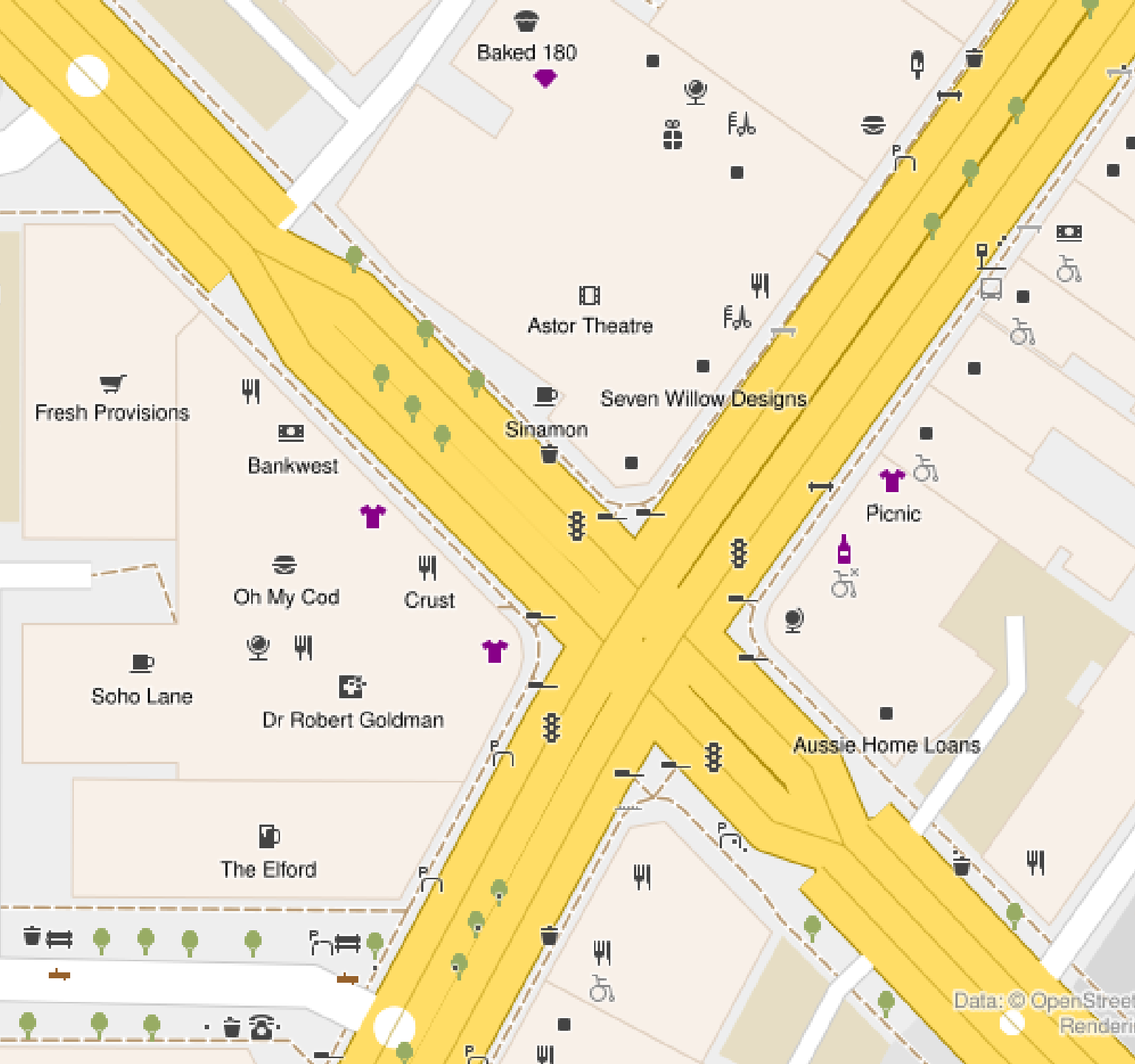
Zoom ...

OSM draws roads like every other map: fixed width.



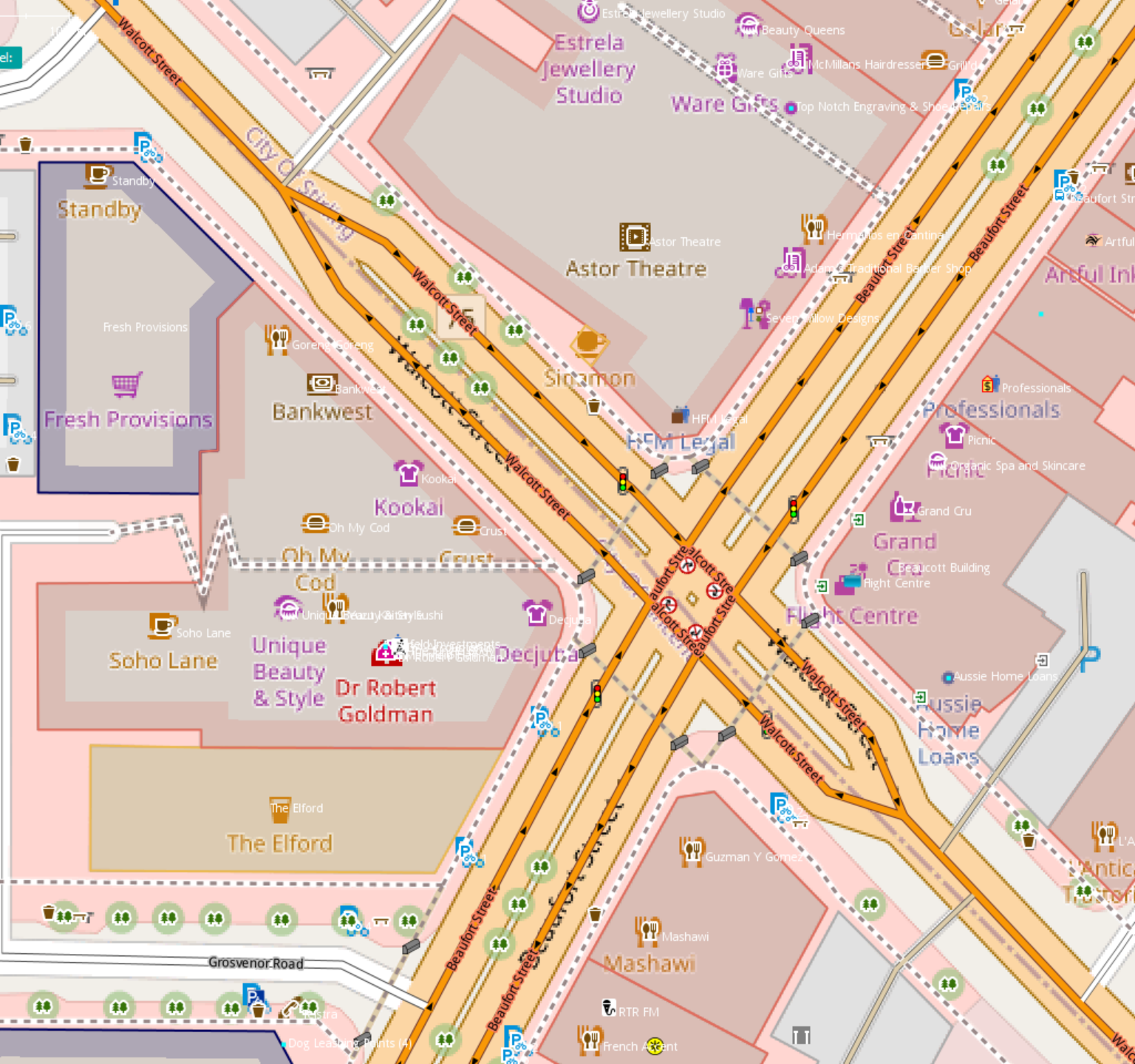
Zoom ...

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



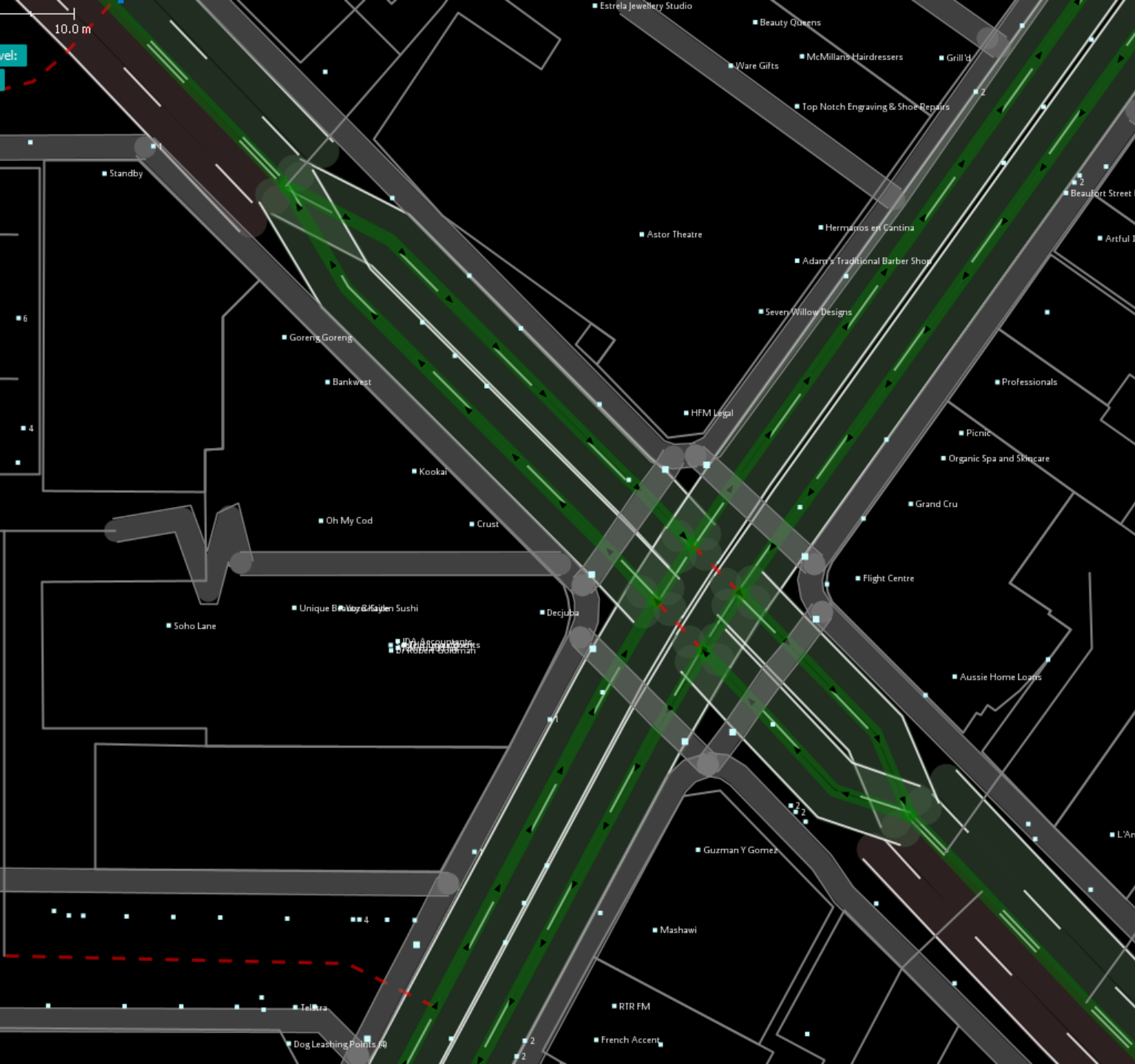
... Enhance!

We can tag more details,
like individual lanes.



... Enhance!

The centerline geometry is not fit for this purpose.

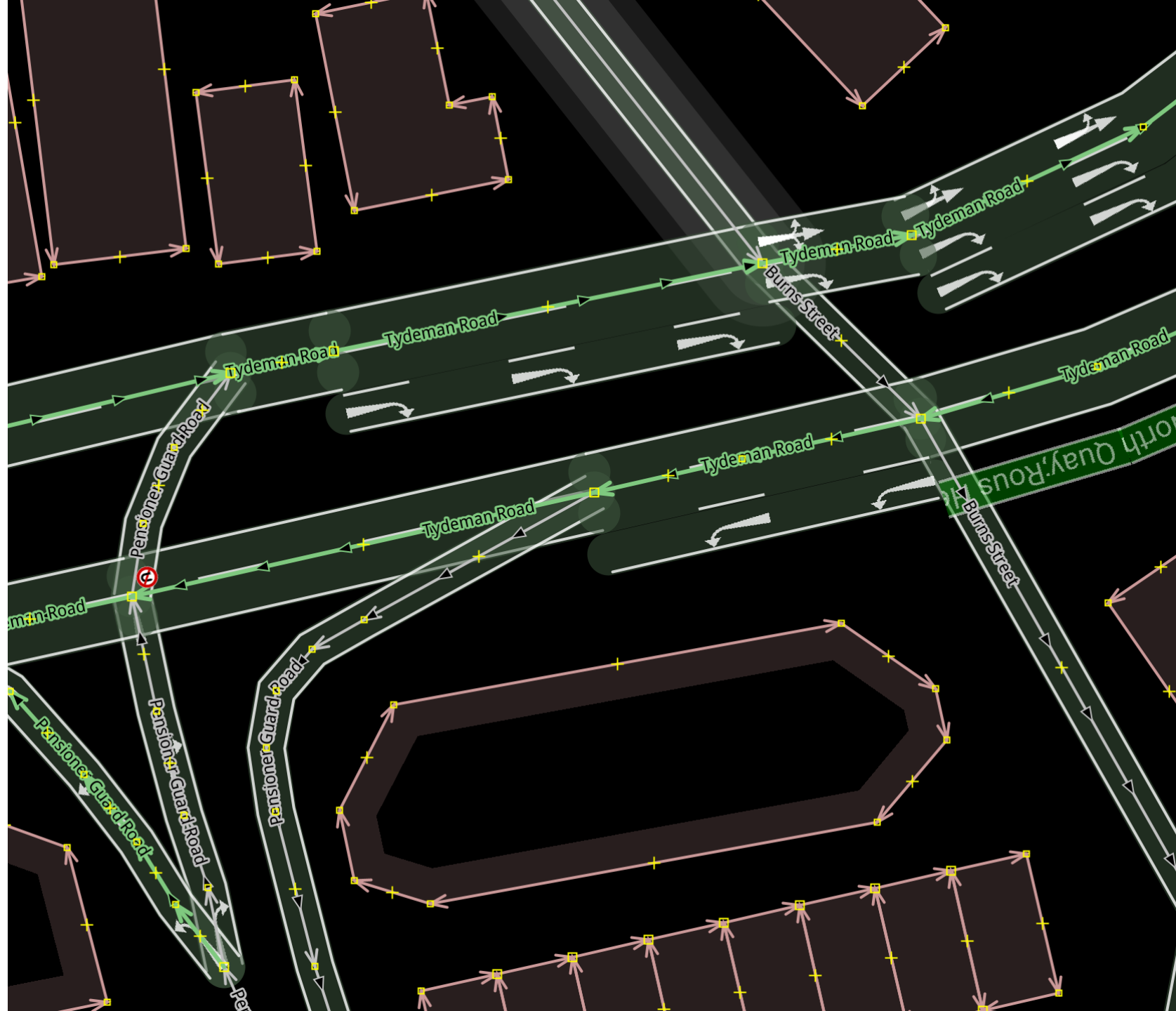


... Enhance!

The centerline geometry is not fit for this purpose.

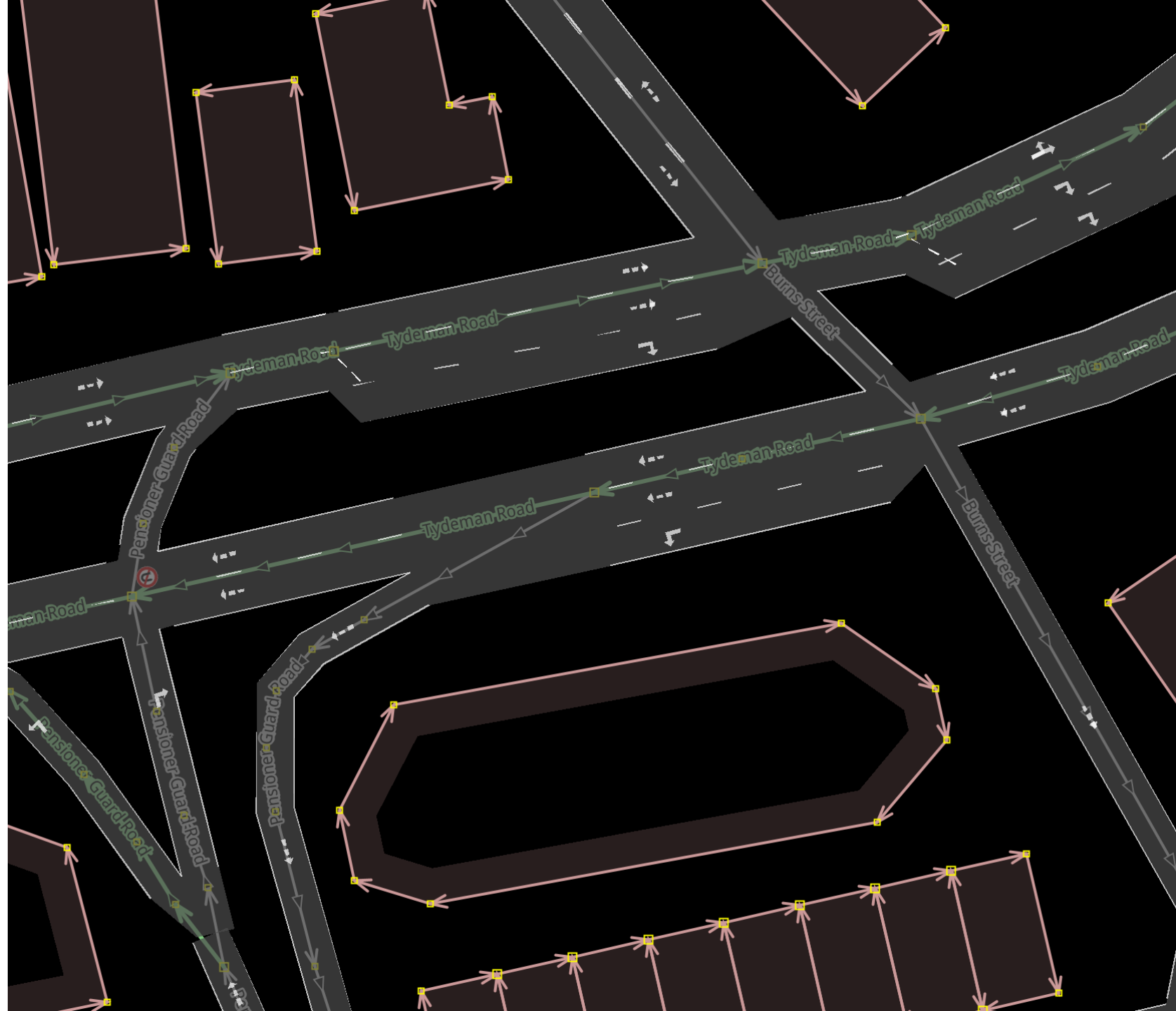
The centerlines have to join up

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

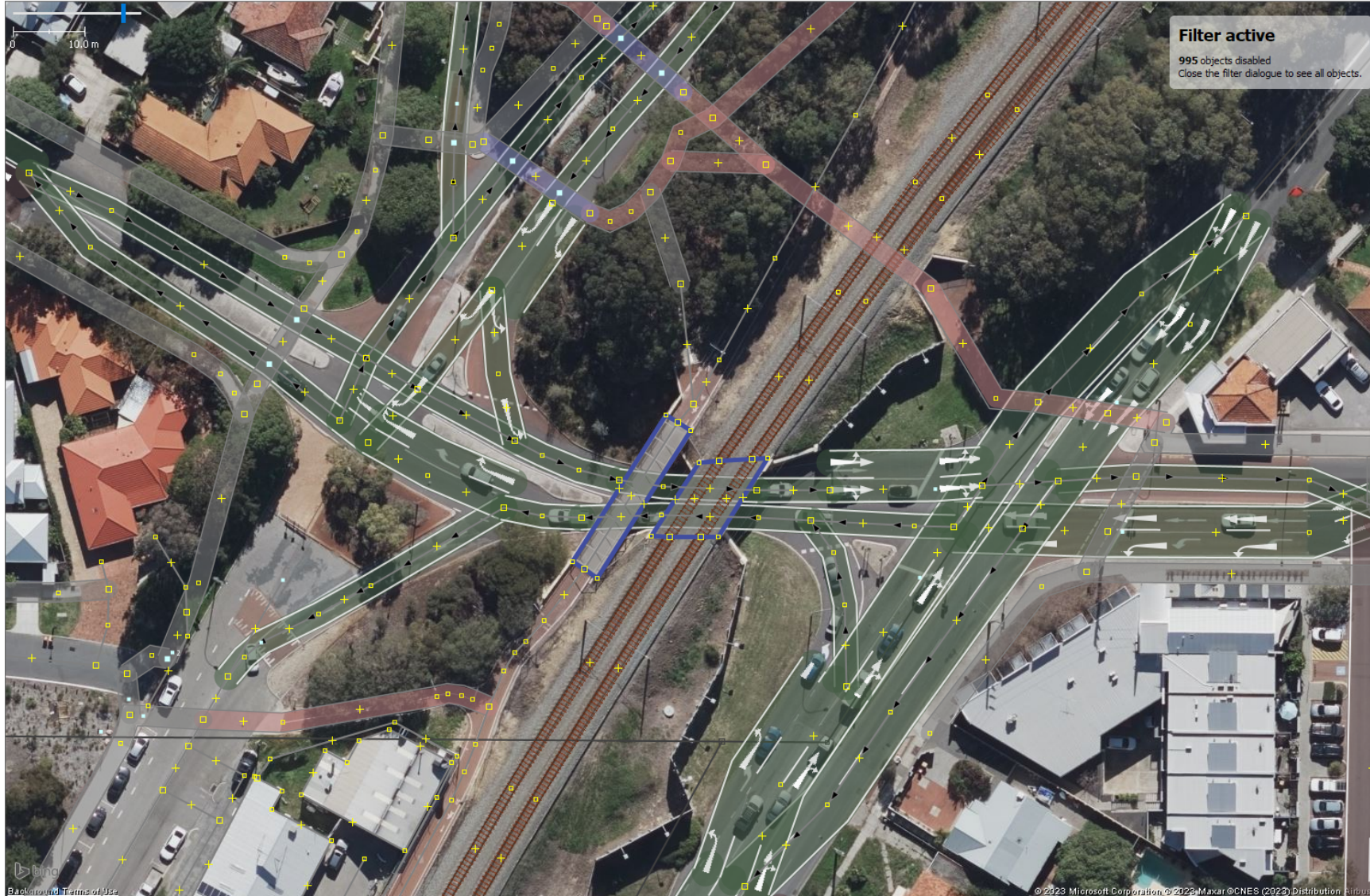
I was impressed by the Lanes Plugin

Written in Java (because JOSM is in Java).

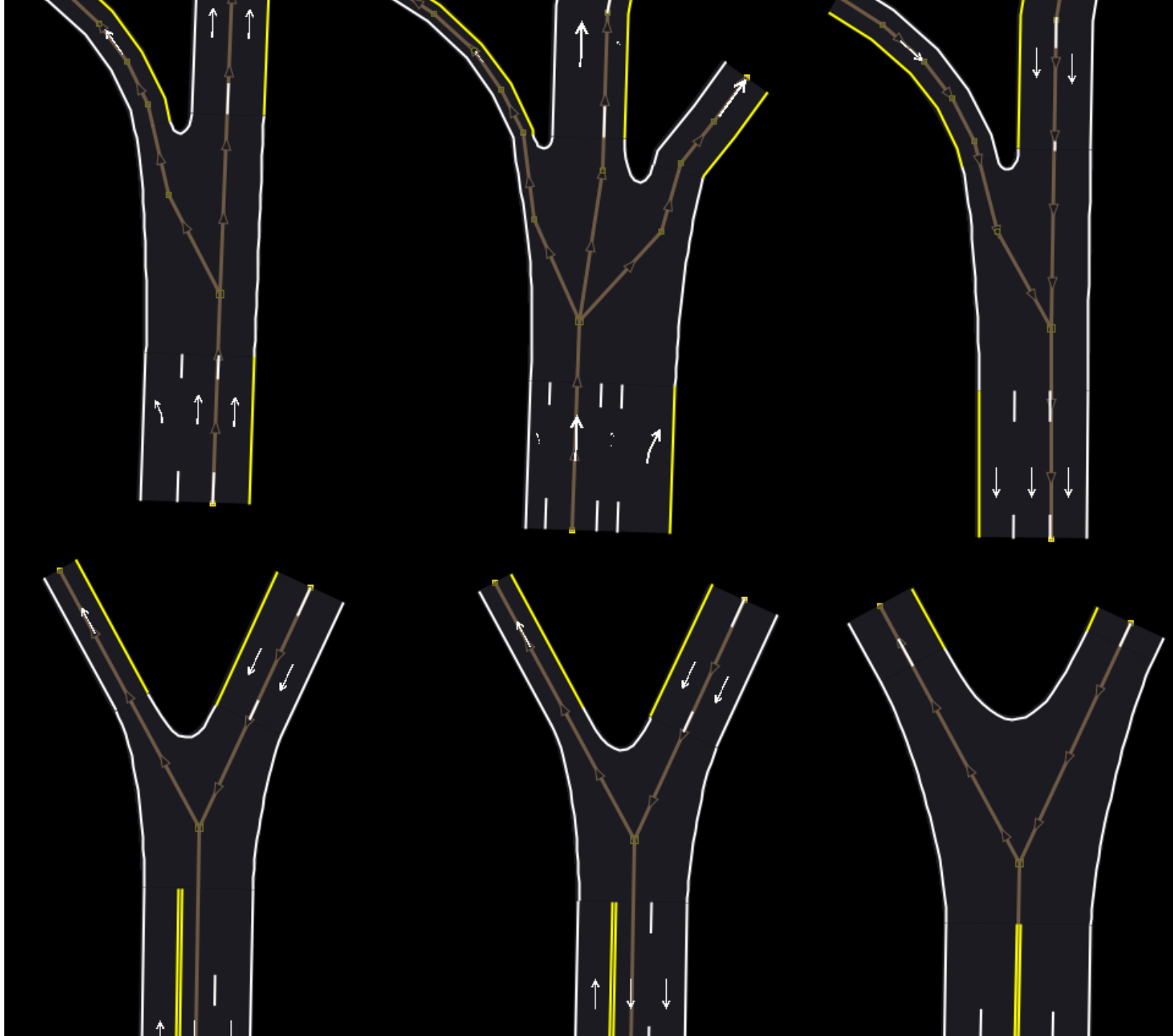


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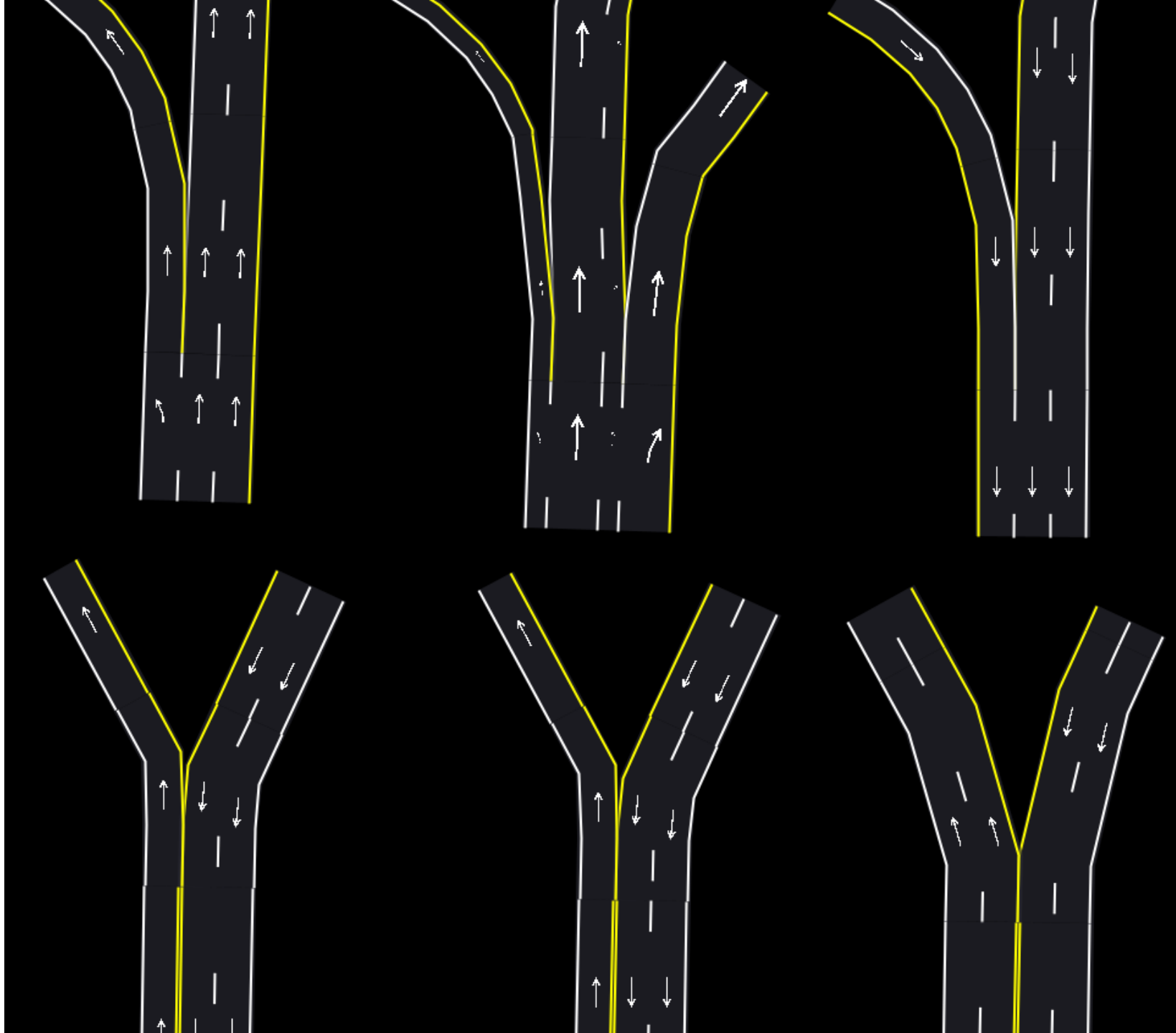
Written in Java (because JOSM is in Java).



I started
working on
adding details
to some
intersections

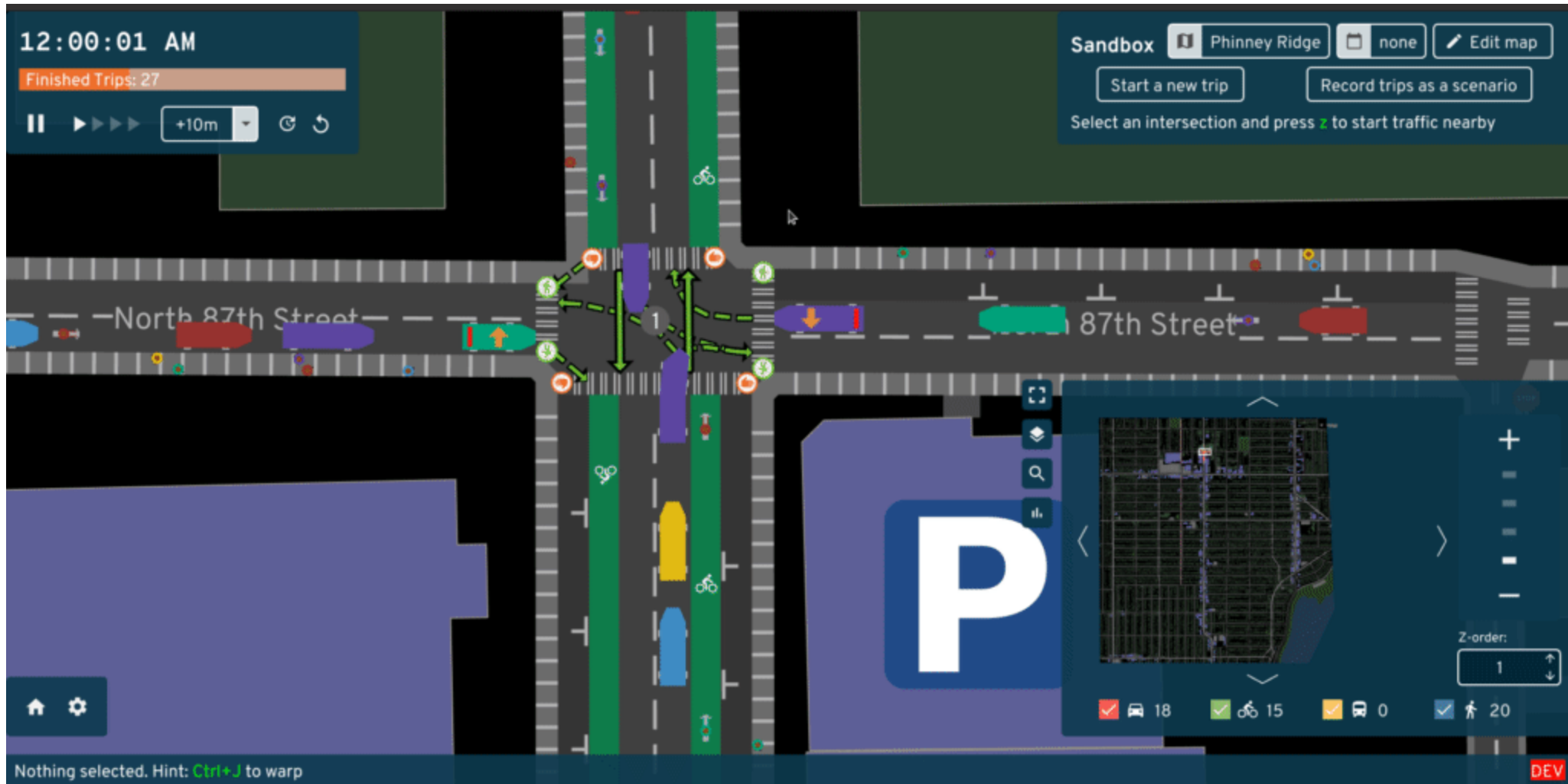


**I started
working on
adding details
to some
intersections**



I found A/B Street

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

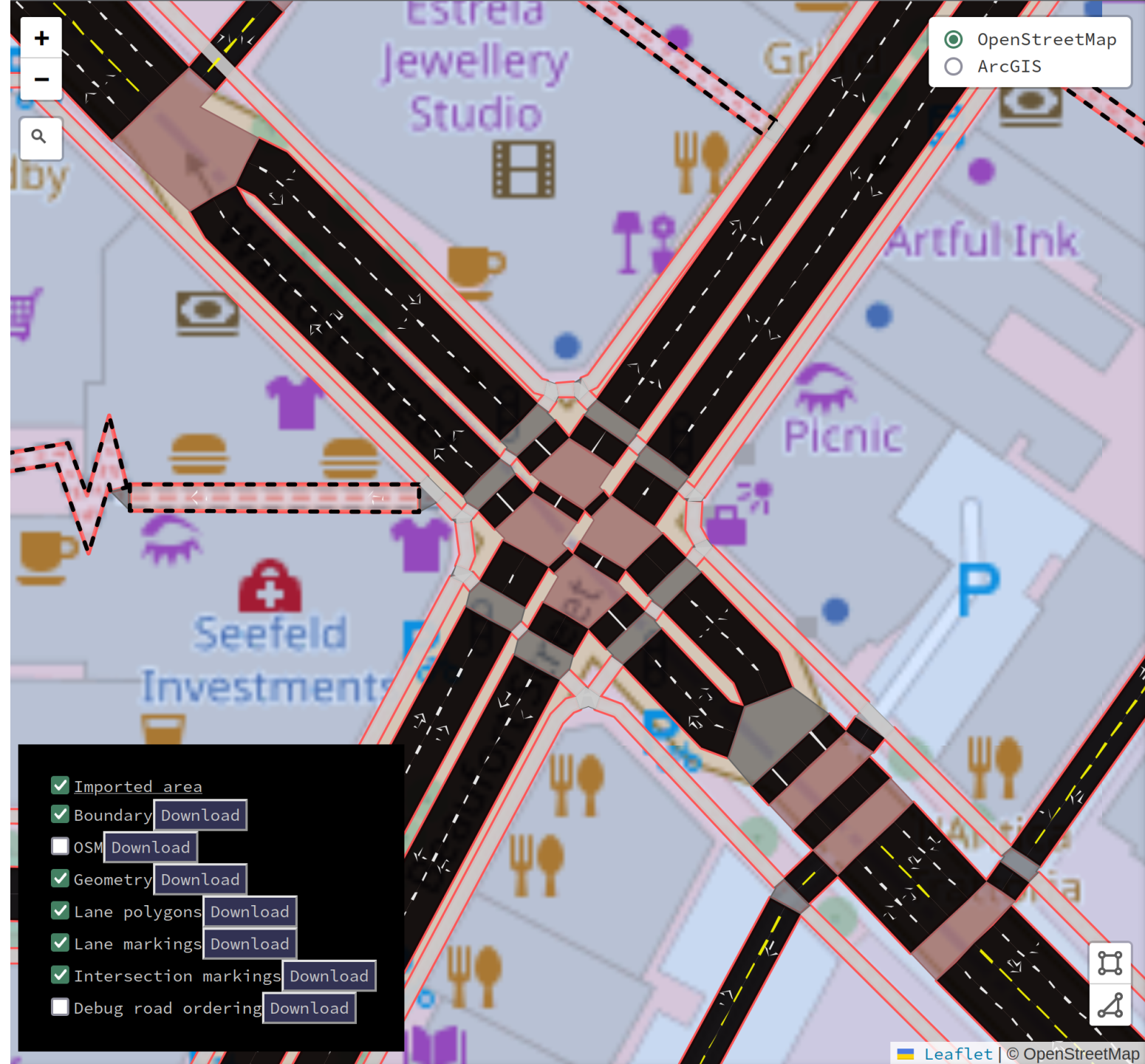


Dustin & I started osm2streets

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

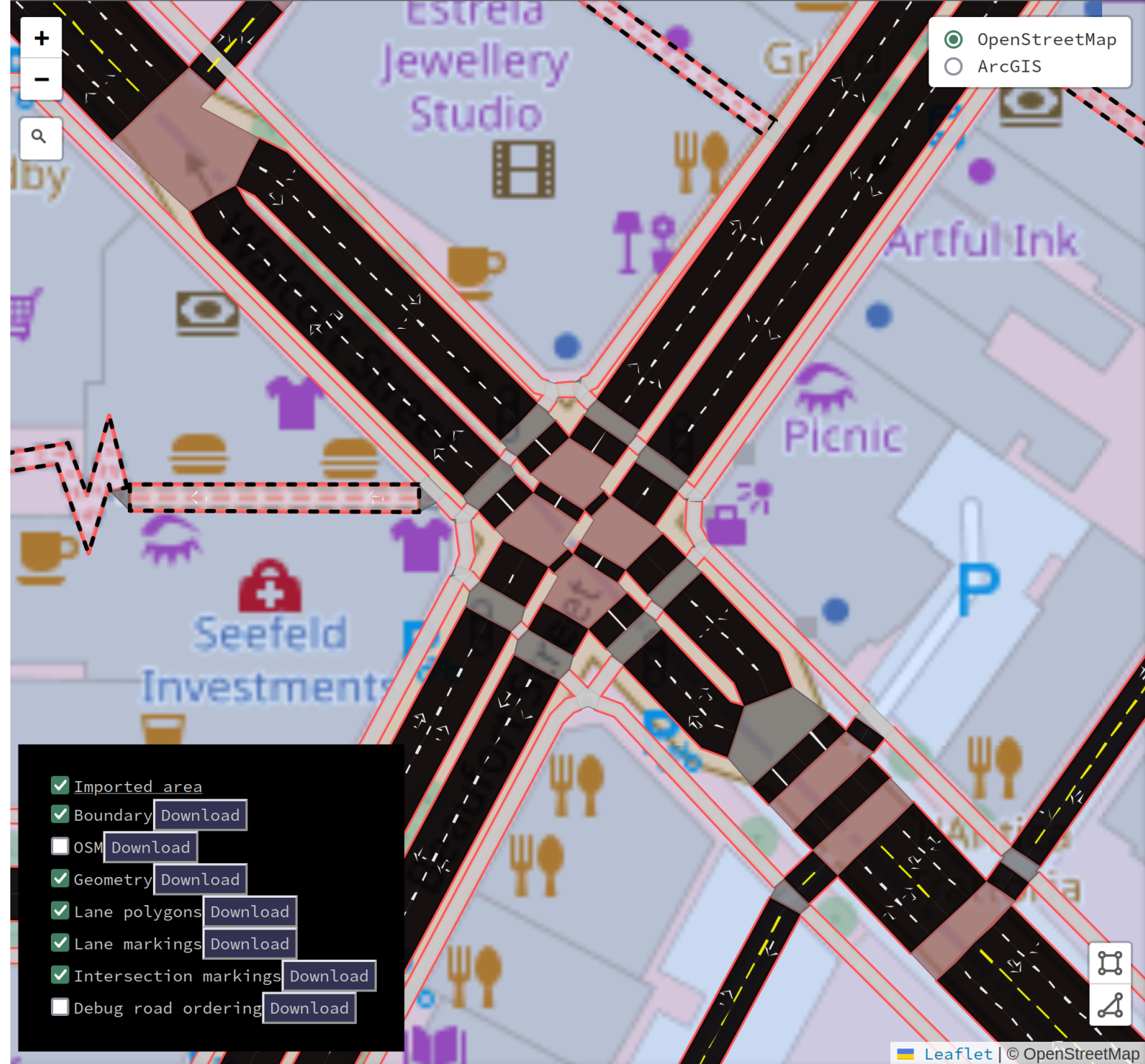
`osm2streets.so` via JNI.



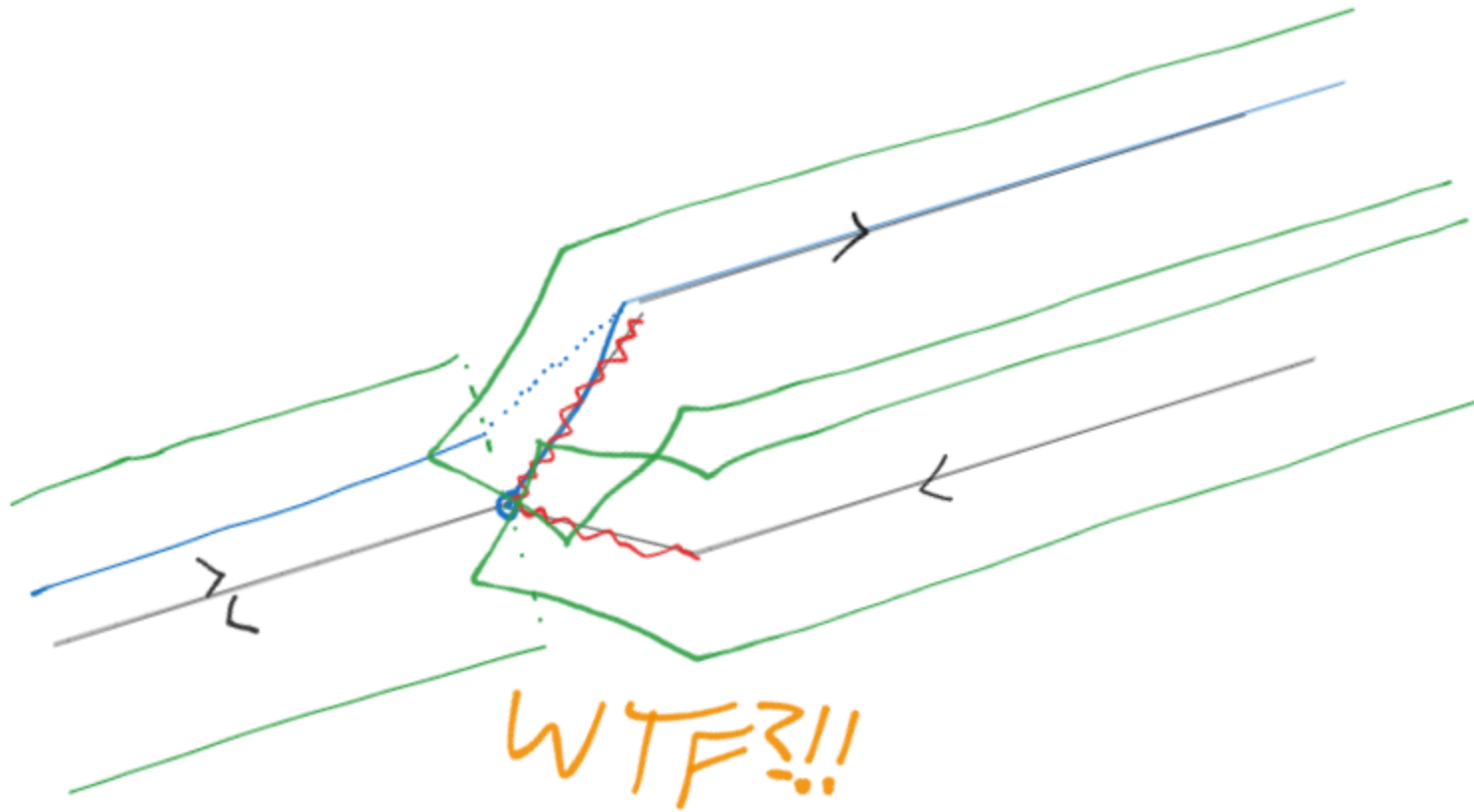
osm2streets has a long way to go

We did some brainstorming last week.

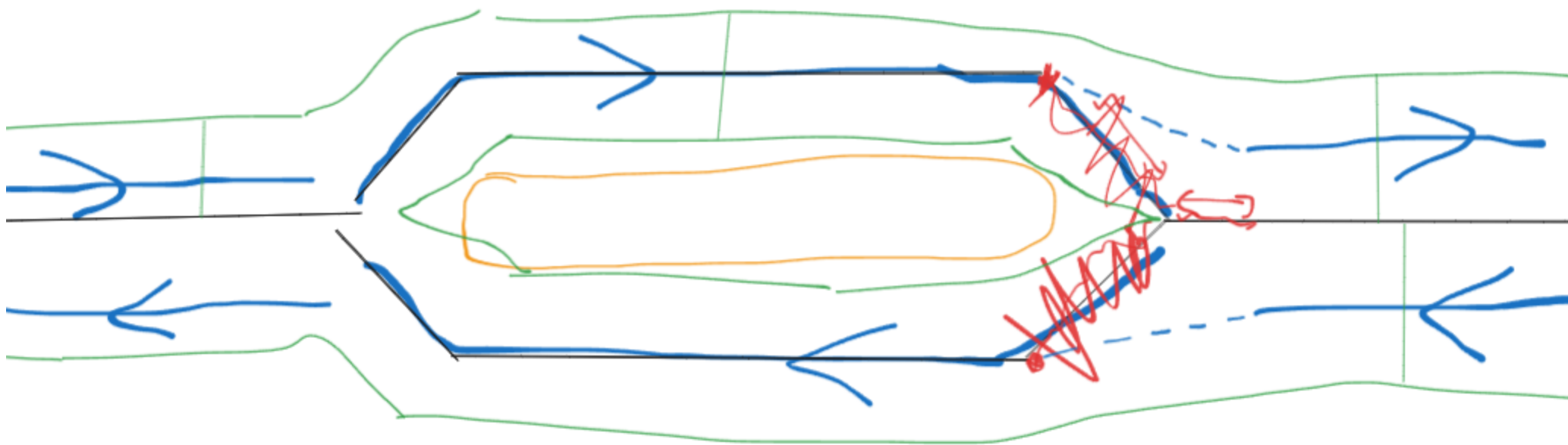
Lets talk about some of those ideas.



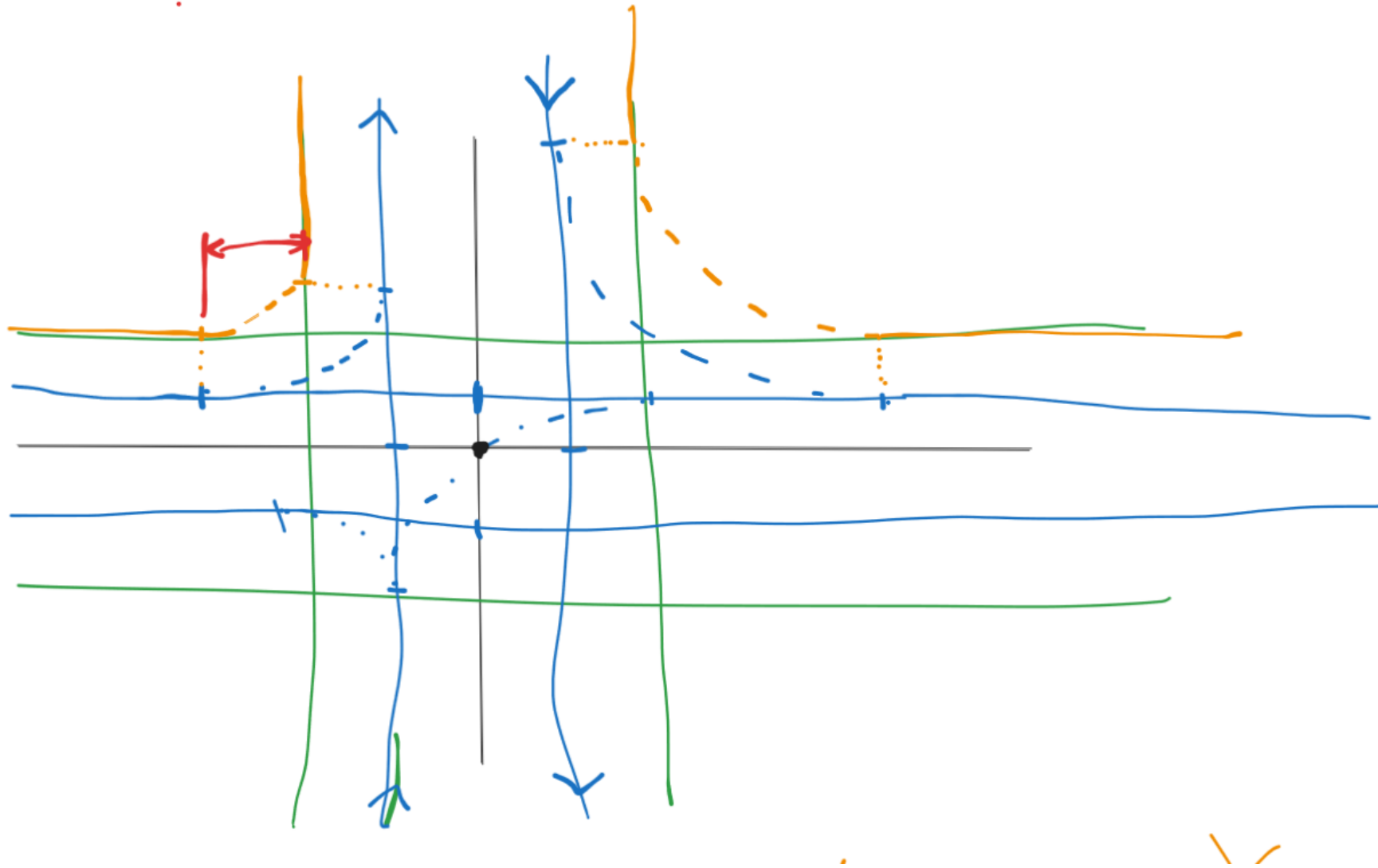
What the fork?



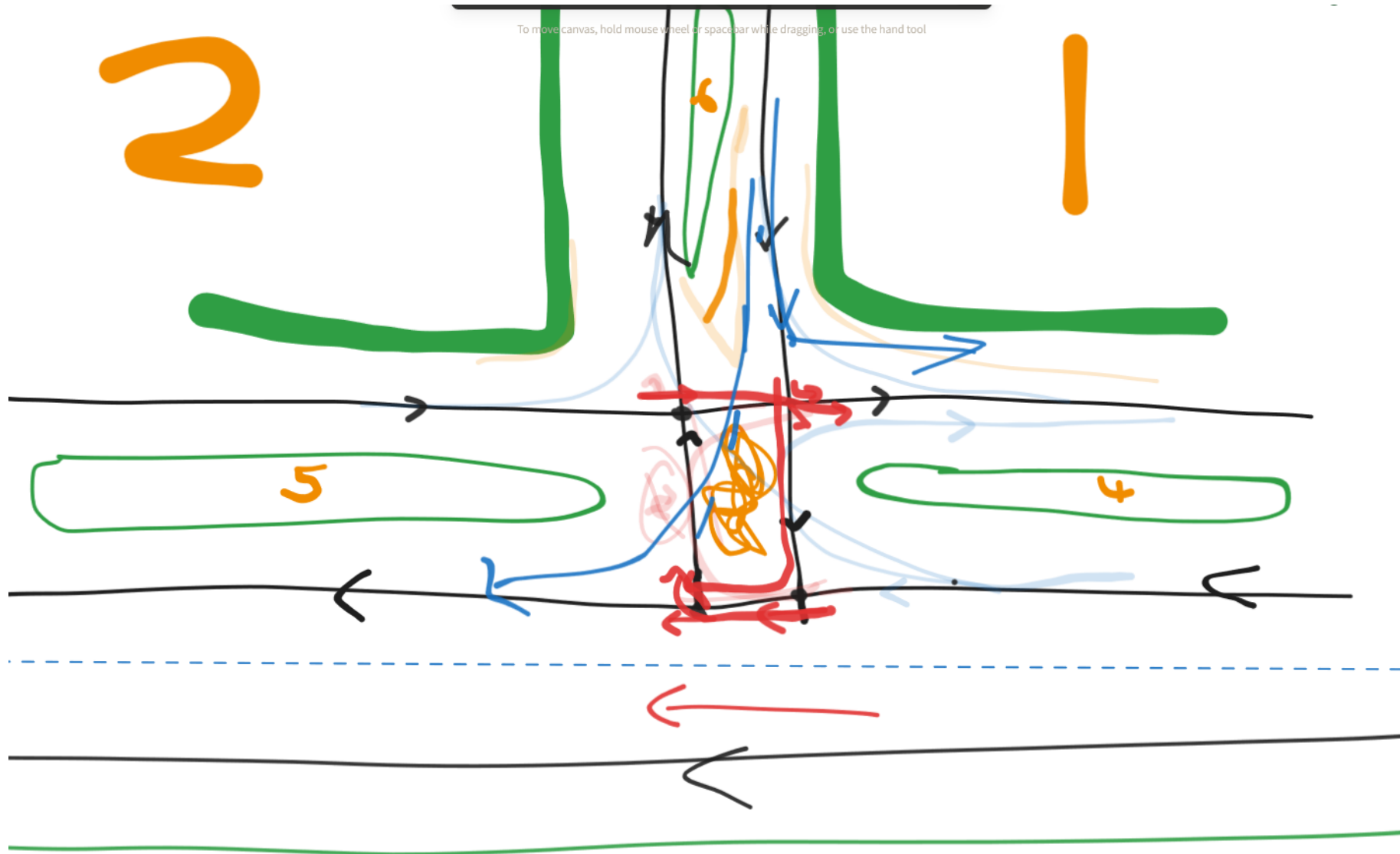
What the fork?



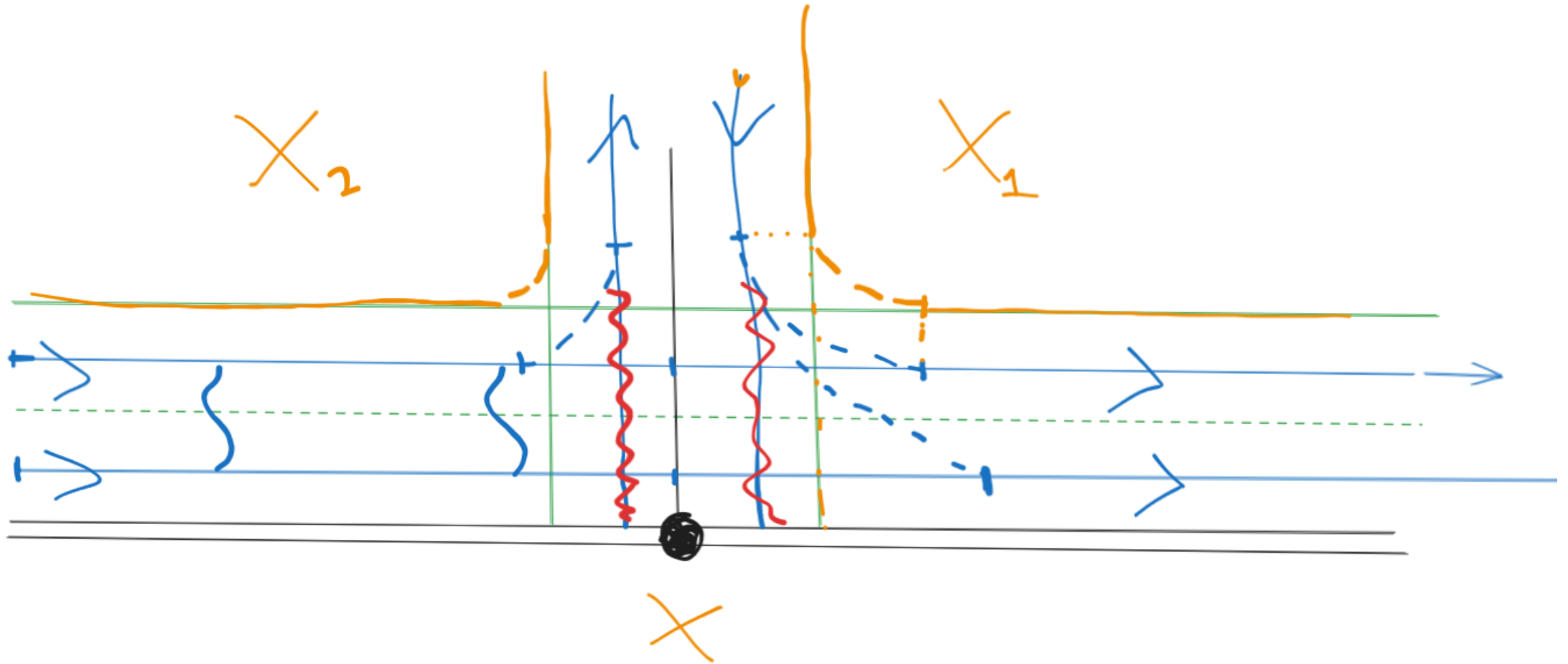
We need the full movement graph



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

benjaminaritter@gmail.com

anywhere.com/BudgieInWA