

# Here's how we Interpolate

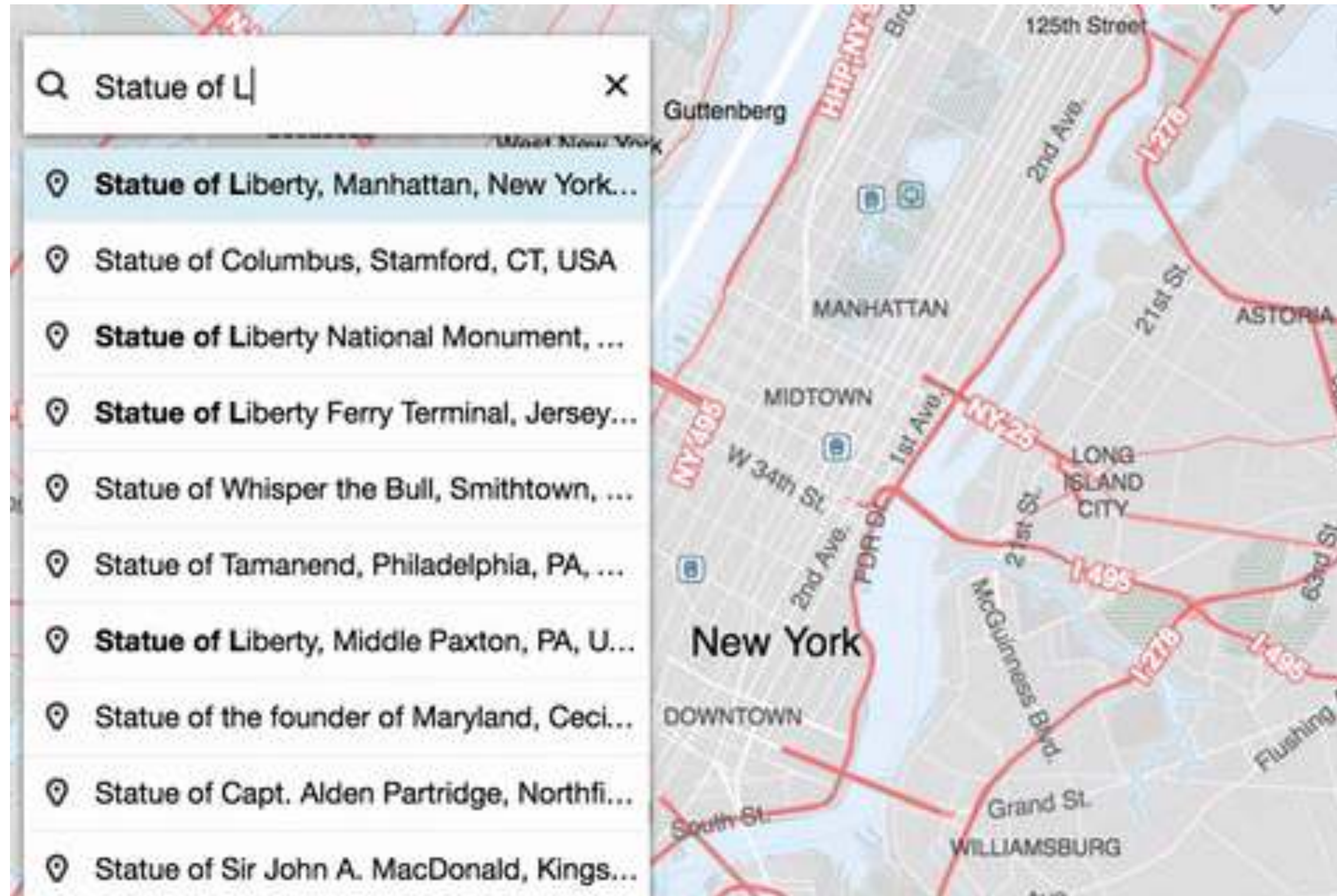
Julian Simioni, maintainer: Pelias geocoder



**Mapzen**

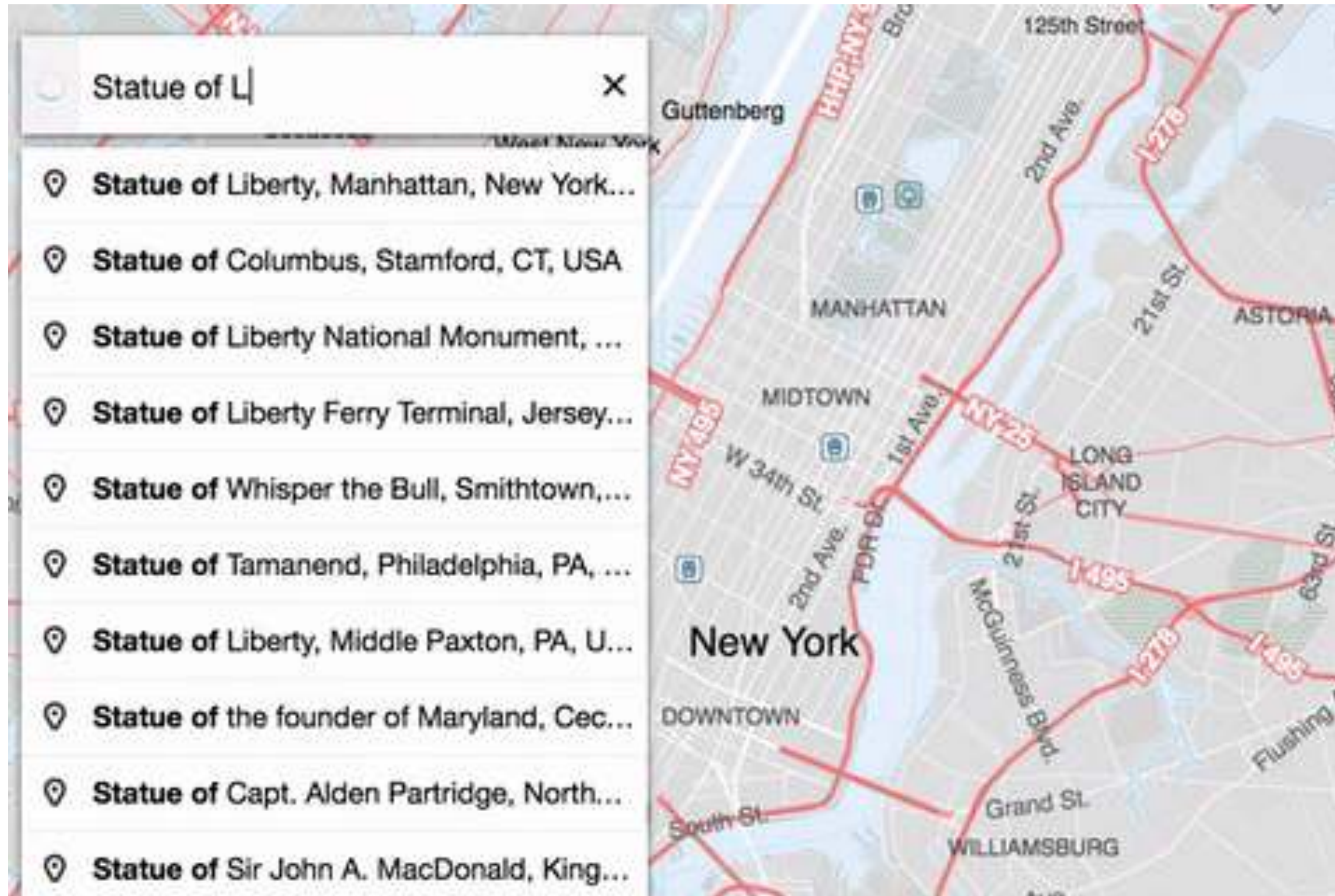






[github.com/pelias/pelias/](https://github.com/pelias/pelias/)





[github.com/pelias/pelias/](https://github.com/pelias/pelias/)

# Geocoders



# addresses

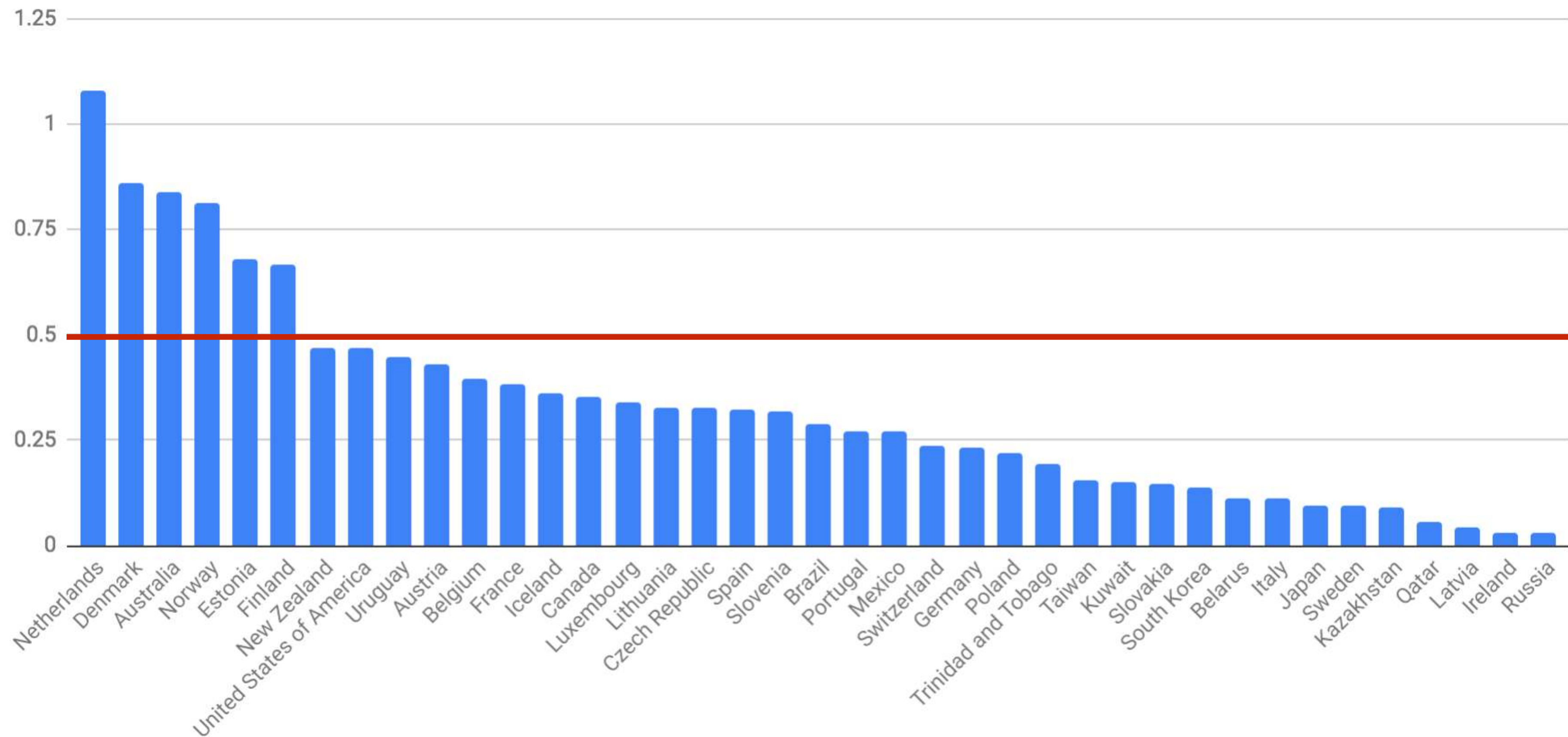


# There are lots of addresses in open data

Counts	
total	560.4M
address	500.7M
venue	27.2M
street	22.7M

<https://pelias-dashboard.geocode.earth>

# ...but not enough



<https://pelias.github.io/scripts-geocoding-coverage/highlights.html>

<https://docs.google.com/spreadsheets/d/1dNe1XU7b46-v8mmlre4972jvmc2YbxUKyF8eTayMrAE/edit?usp=sharing>

 @juliansimioni











# TIGER: The Coast-to-Coast Digital Map Data Base



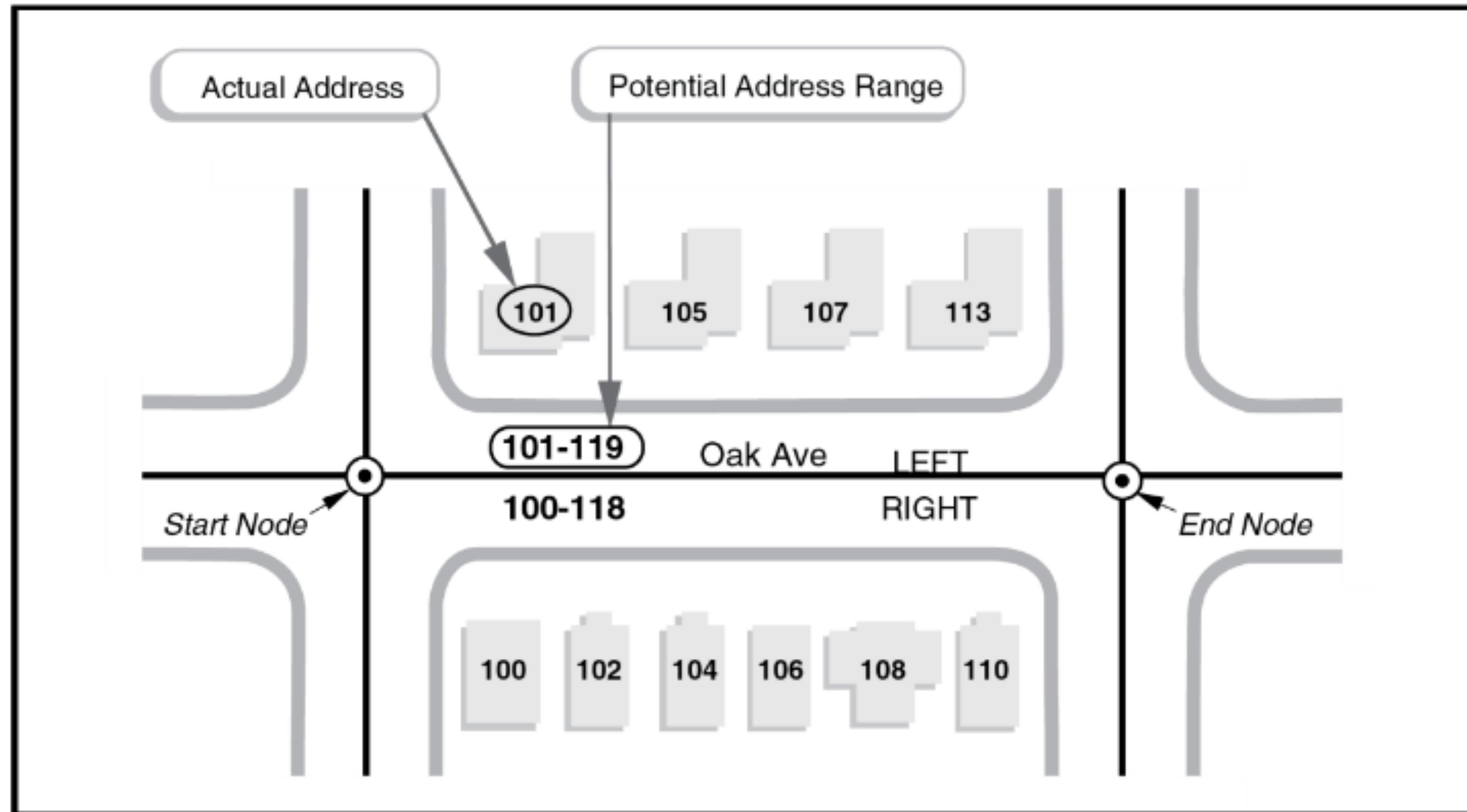
# History lover distraction links:

<http://census.maps.arcgis.com/apps/MapJournal/index.html?appid=2b9a7b6923a940db84172d6de138eb7e>

<https://www.pinterest.com/uscensusbureau/census-history/>



# Address Ranges



[https://www2.census.gov/geo/pdfs/maps-data/data/tiger/tgrshp2015/TGRSHP2015\\_TechDoc.pdf](https://www2.census.gov/geo/pdfs/maps-data/data/tiger/tgrshp2015/TGRSHP2015_TechDoc.pdf)







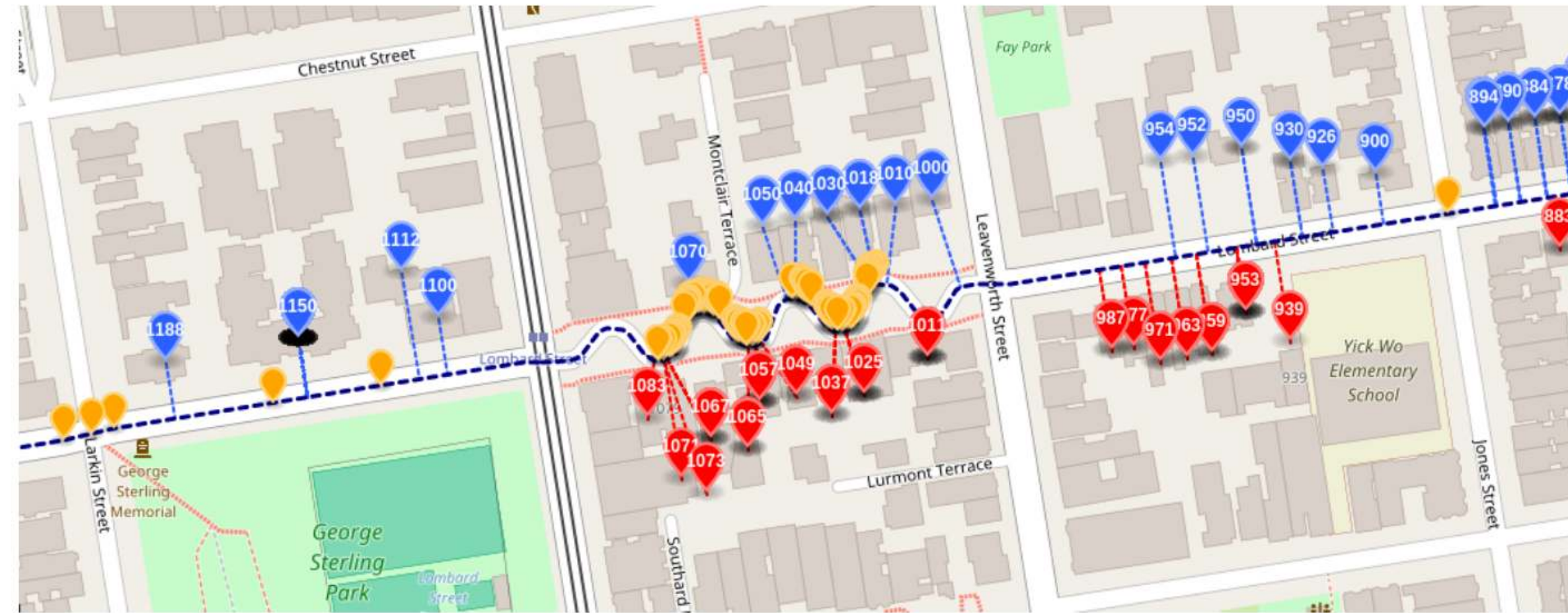






## Pelias Interpolation

An open source + open data project to perform global street address interpolation queries. Sponsored by [Mapzen](#).



### About

The [Openstreetmap](#) and [Openaddresses](#) projects provide a huge cache of street address information; between them around 500 million address points are freely available to download.

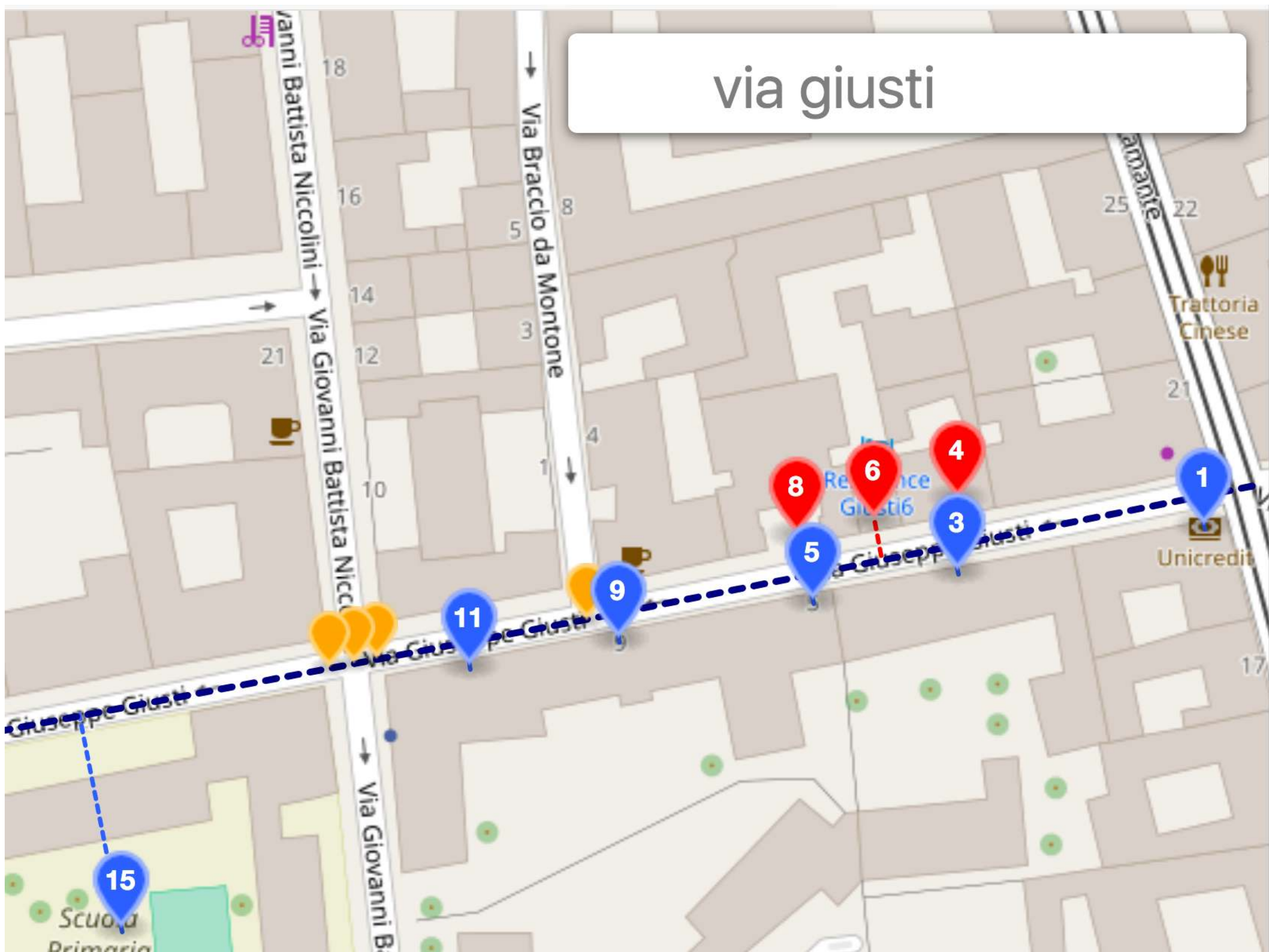
Some countries like Germany and the USA have dense address coverage while other have only sparse data available.

This project aims to 'fill in the gaps' in the data by intelligently estimating where the missing house numbers would lie on the road.

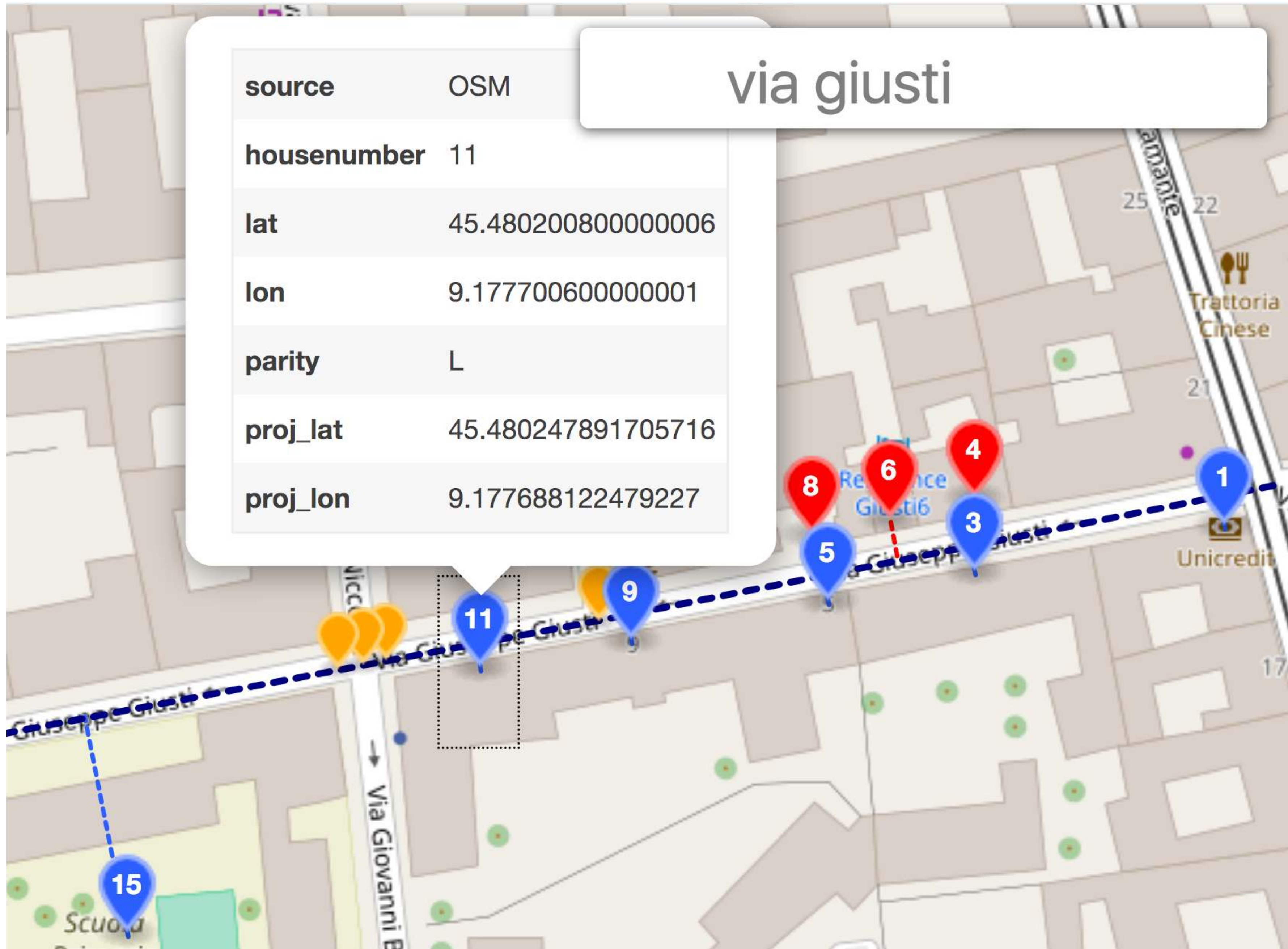
The service was designed for use with the [pelias geocoder](#), however it can also be used as a stand-alone application or included with other geographic software / search engines.

<https://github.com/pelias/interpolation>







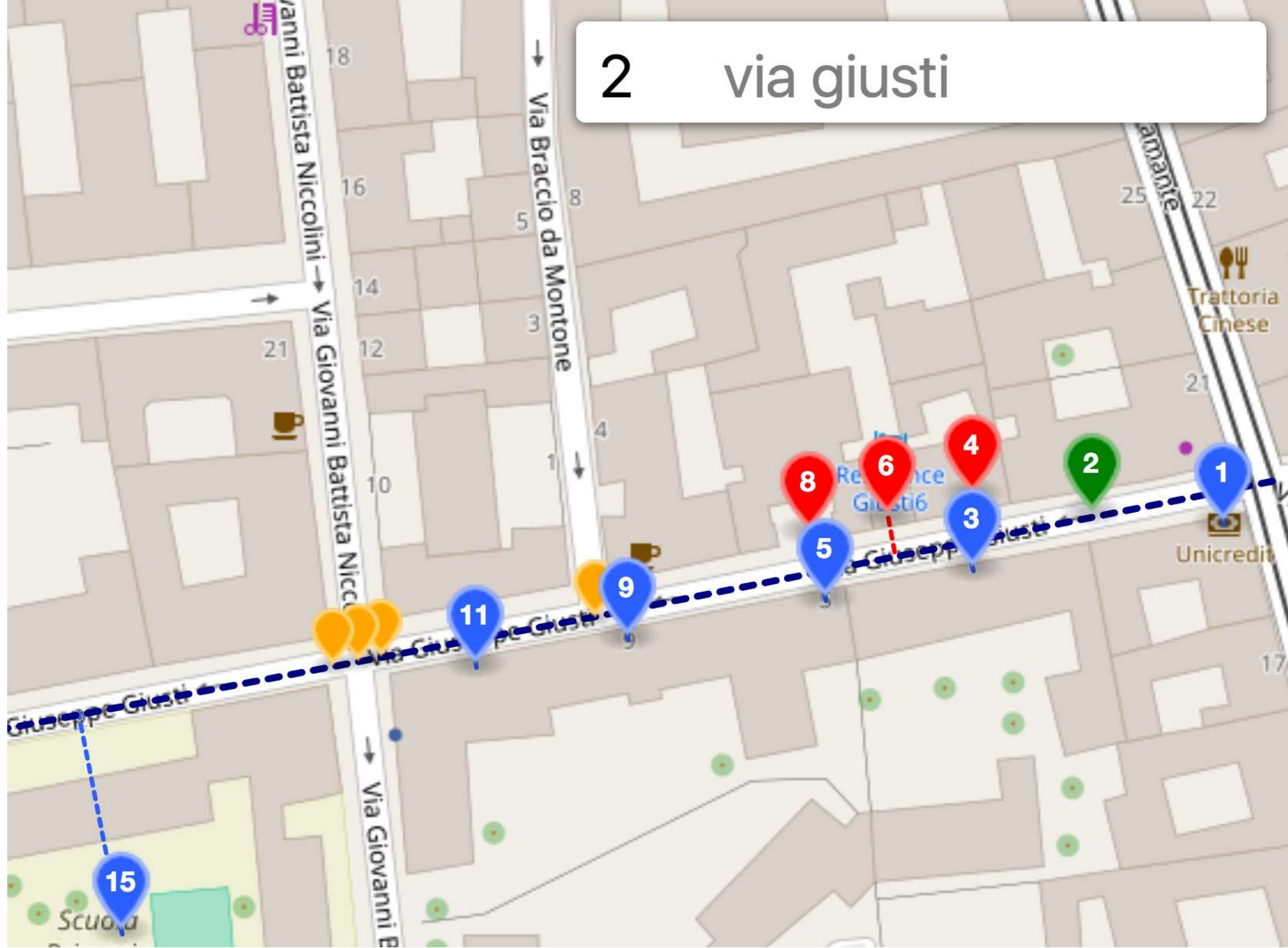


source	OSM
housenumber	11
lat	45.480200800000006
lon	9.177700600000001
parity	L
proj_lat	45.480247891705716
proj_lon	9.177688122479227

via giusti

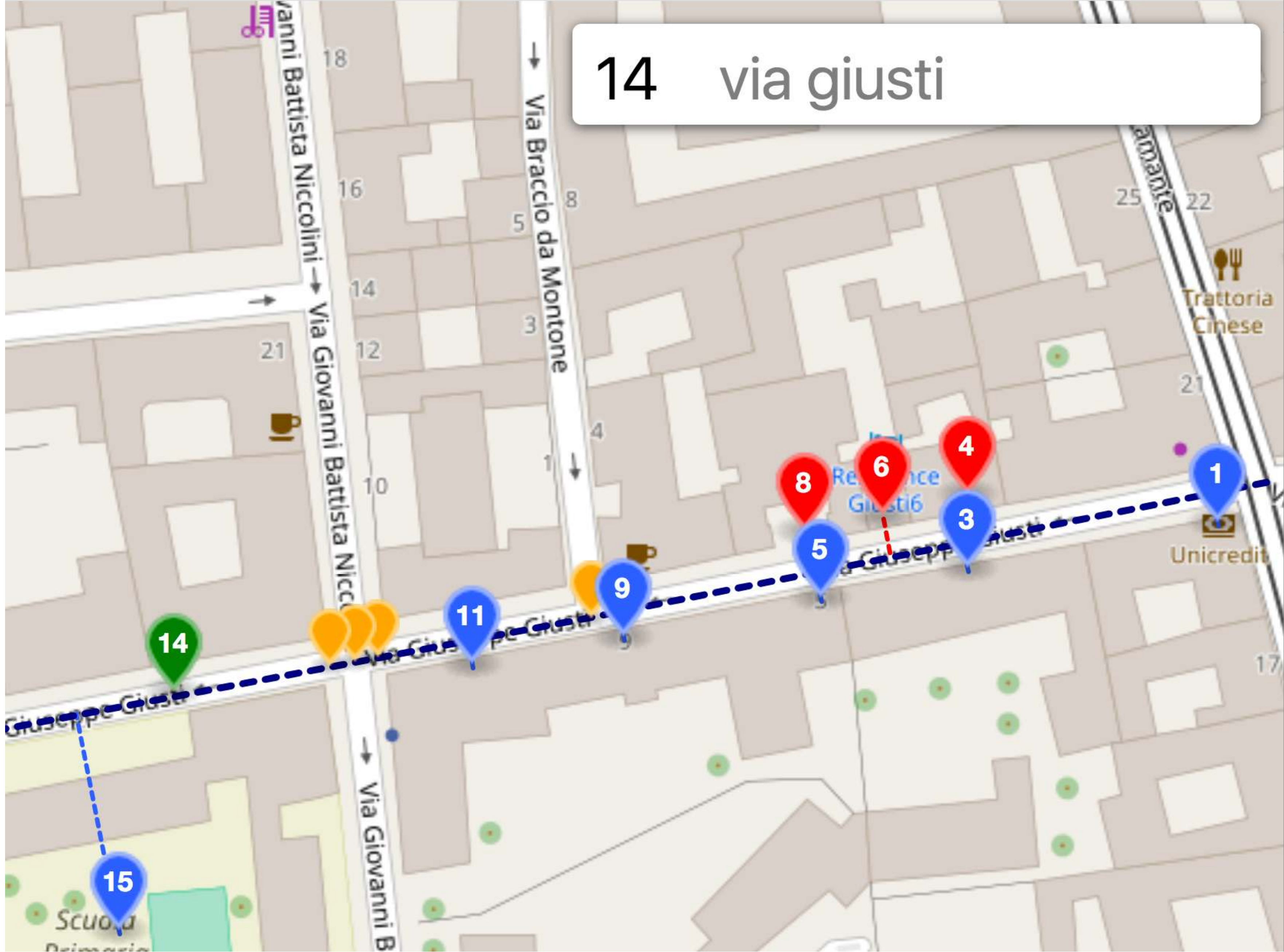


2 via giusti





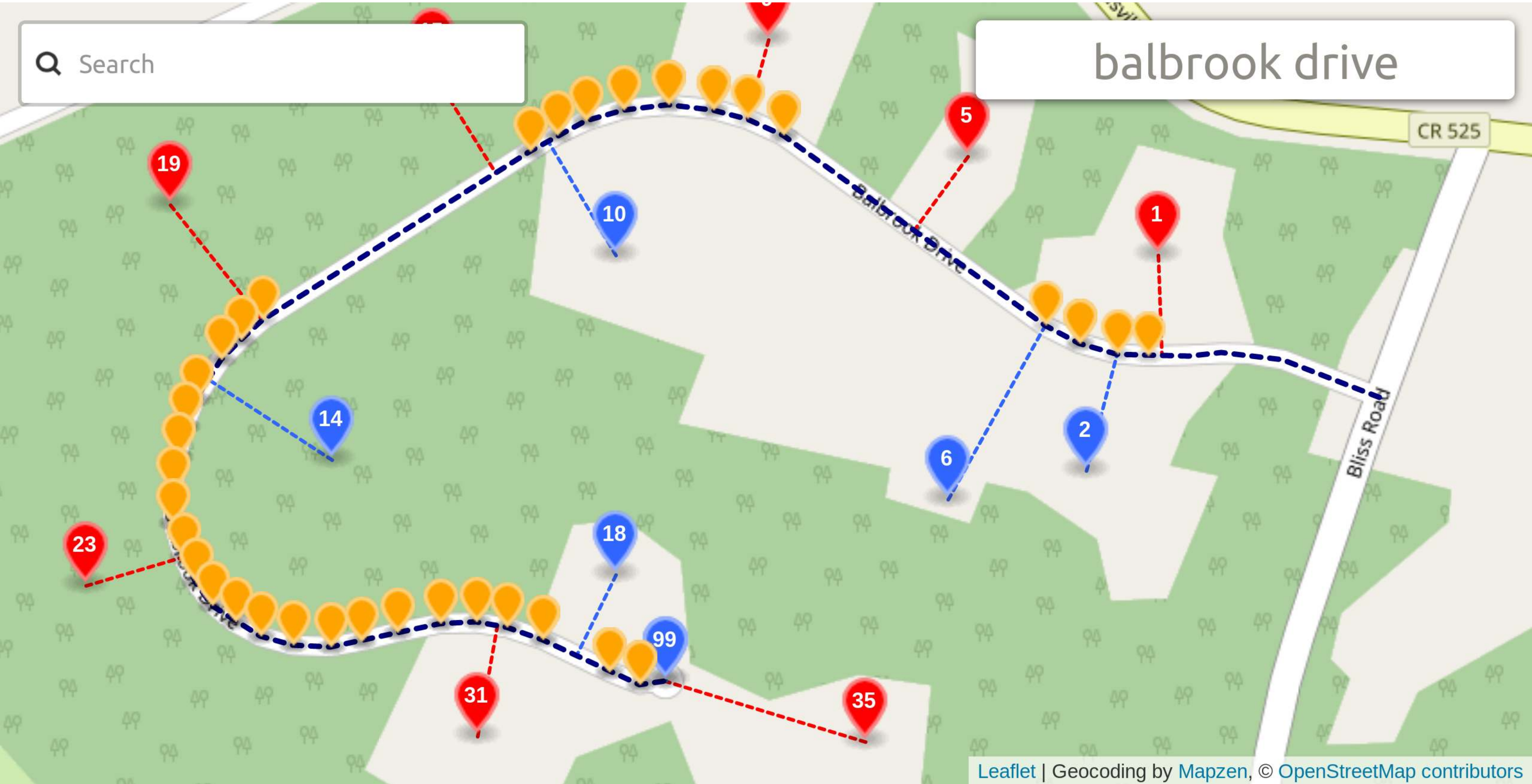
14 via giusti





Search

balbrook drive



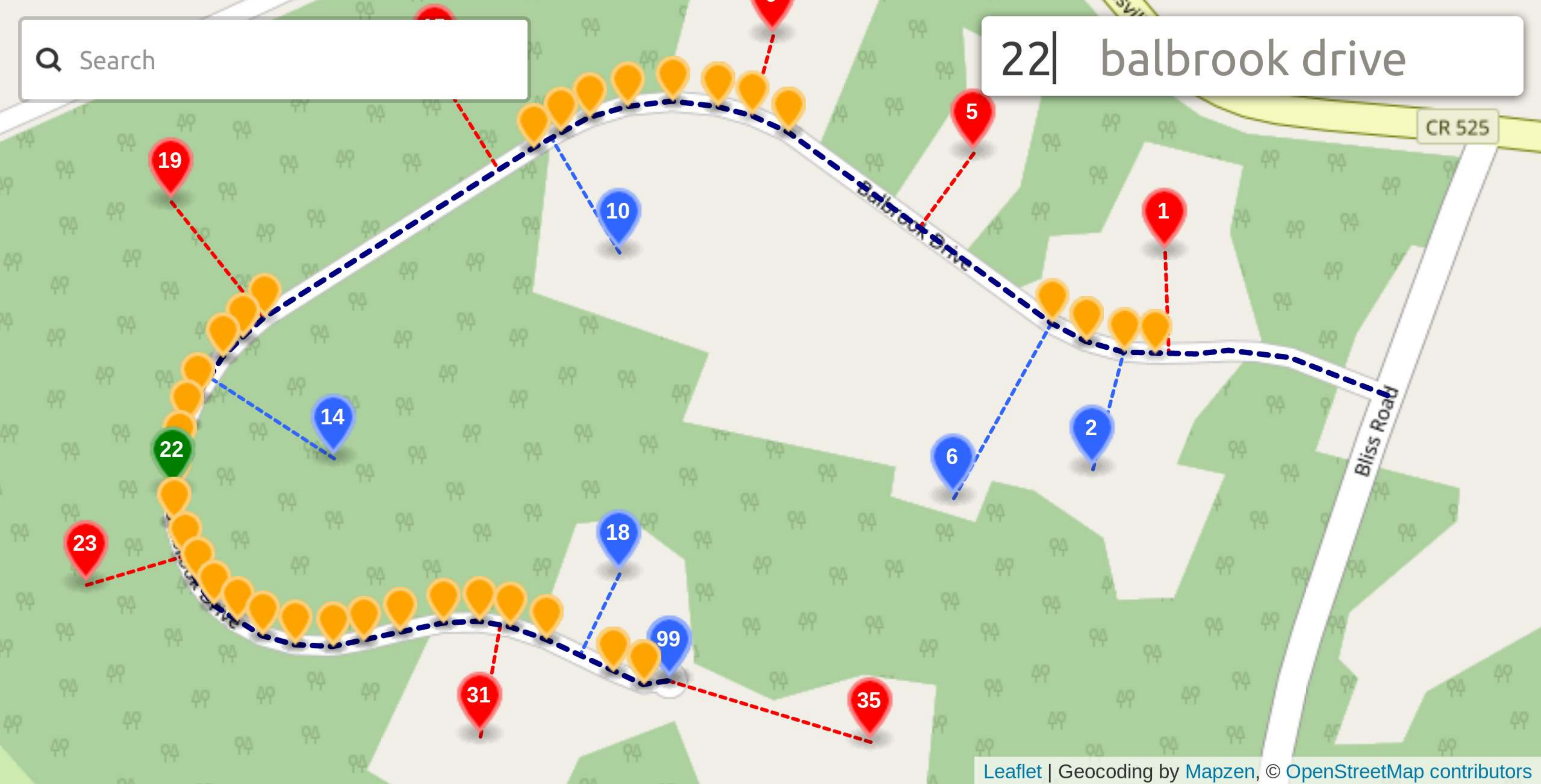
Leaflet | Geocoding by Mapzen, © OpenStreetMap contributors

 @juliansimioni



Search

22| balbrook drive



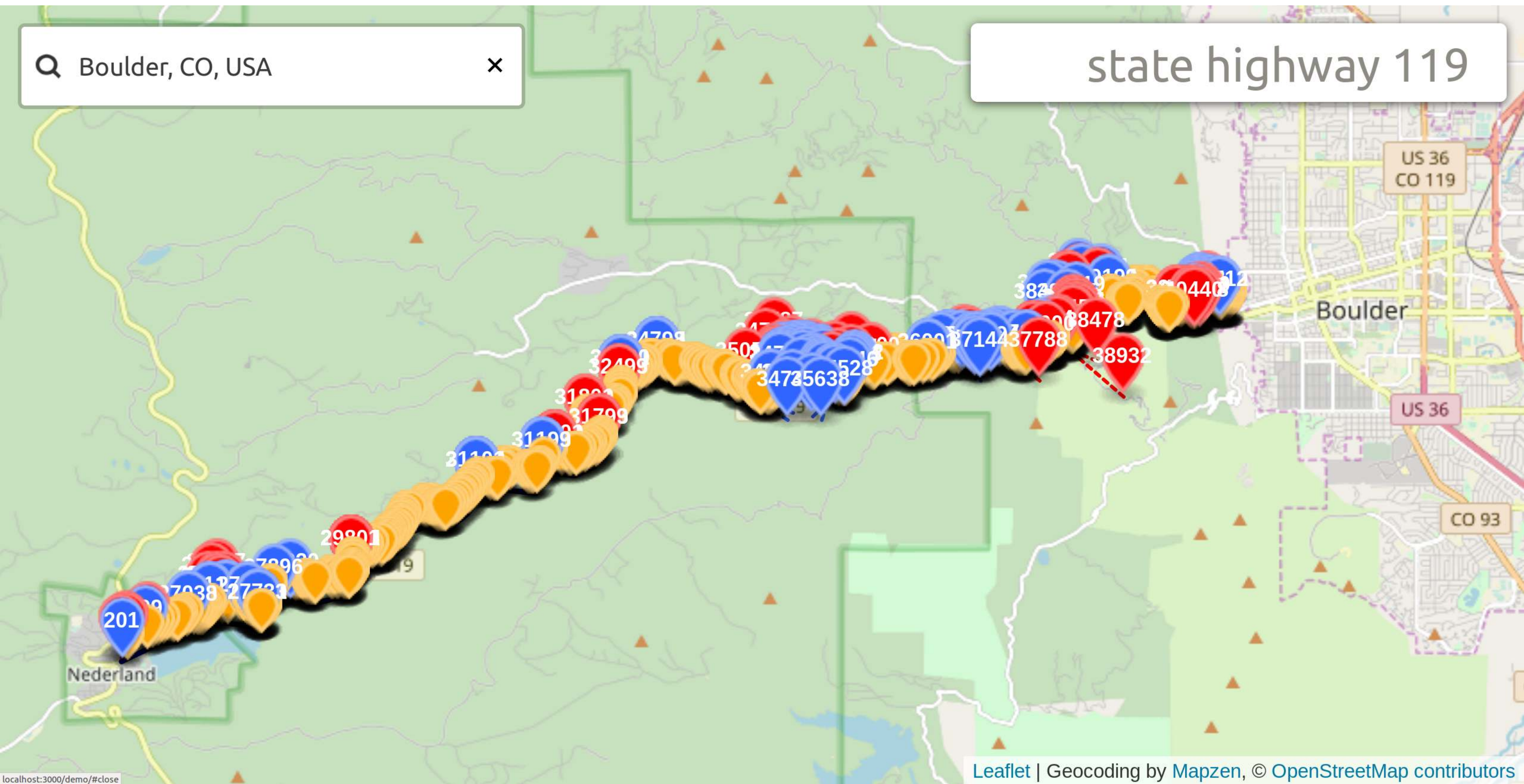
Leaflet | Geocoding by Mapzen, © OpenStreetMap contributors

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🔍 Boulder, CO, USA ✕

state highway 119



localhost:3000/demo/#close

Leaflet | Geocoding by Mapzen, © OpenStreetMap contributors

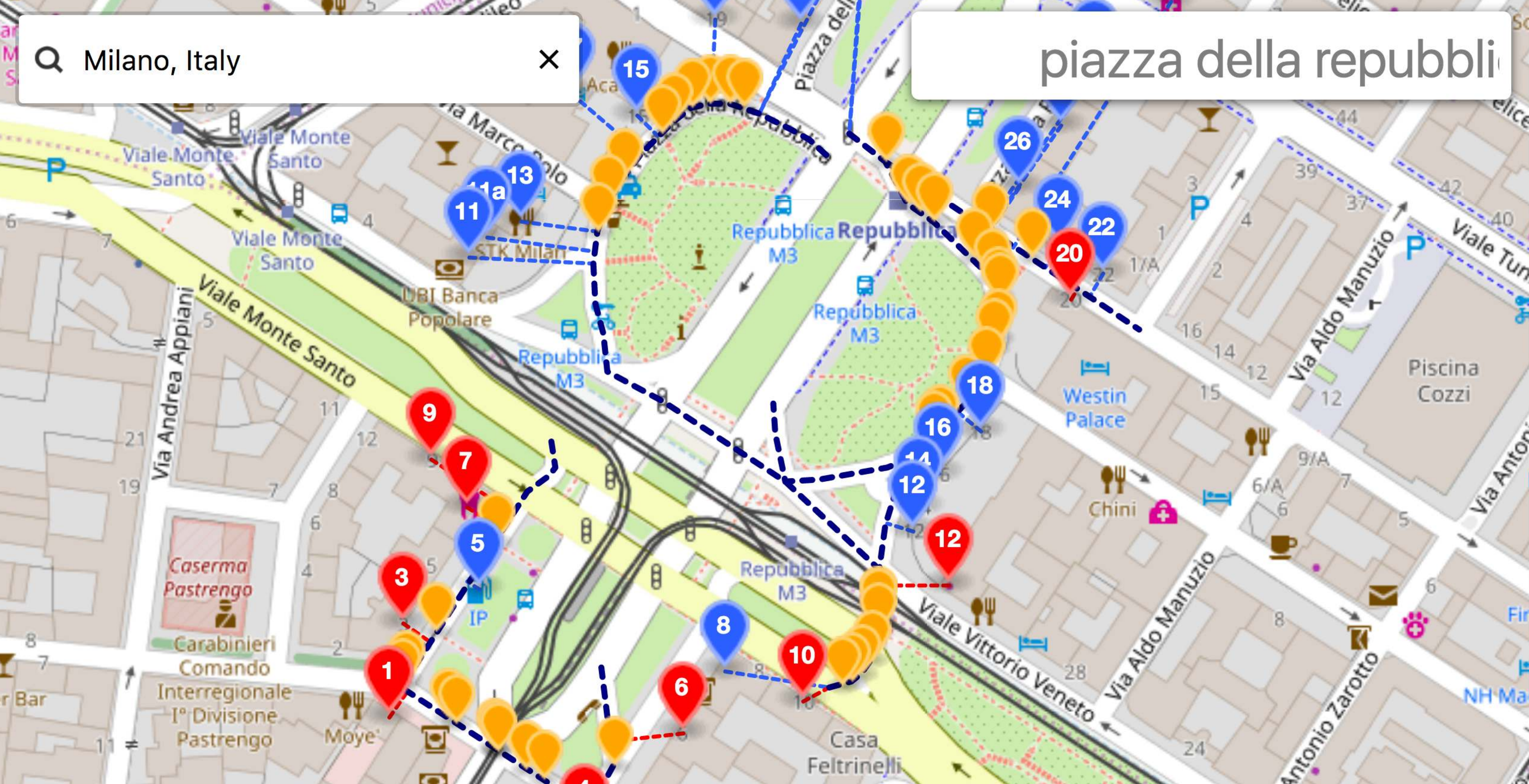
 @juliansimioni



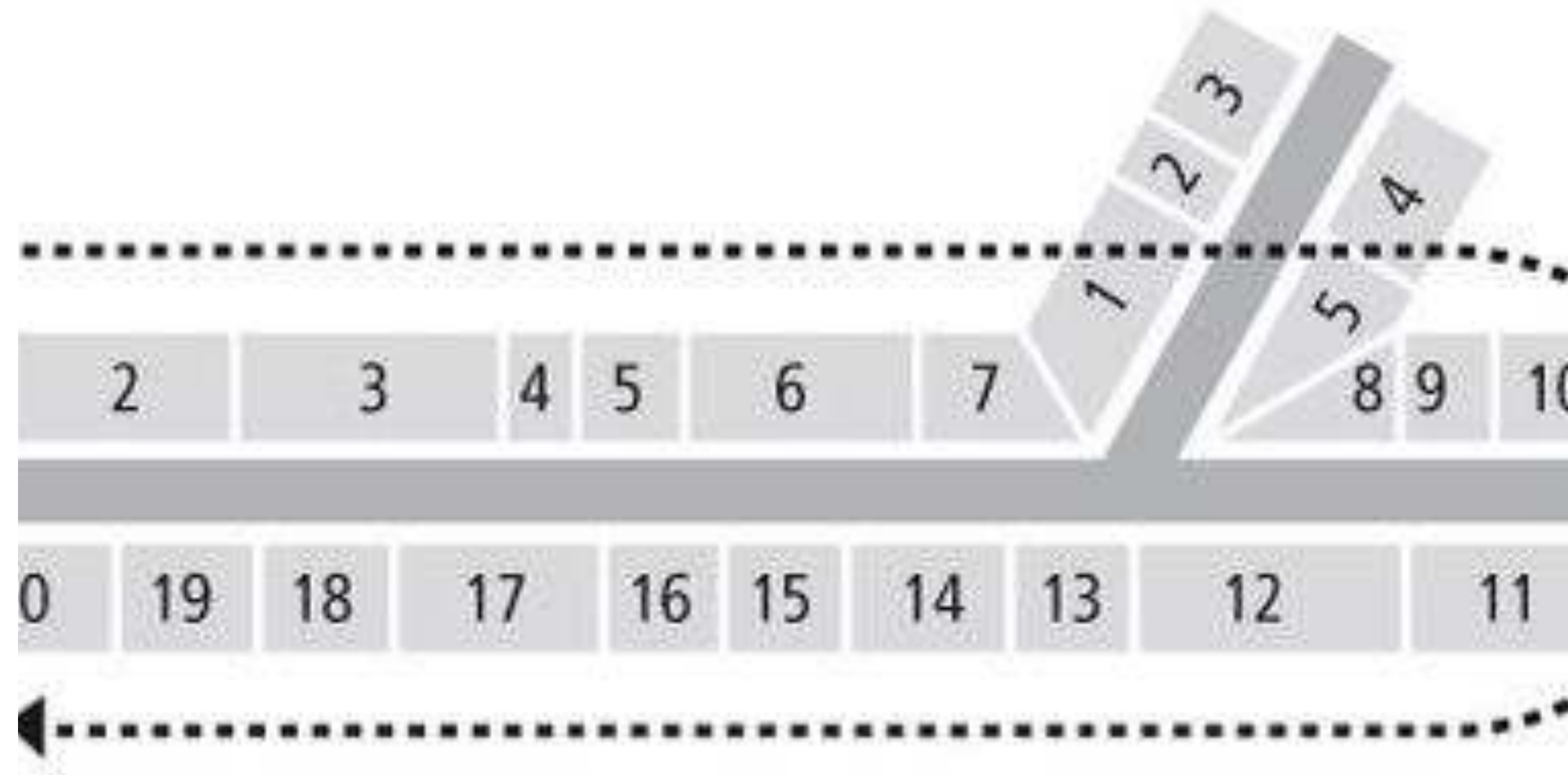
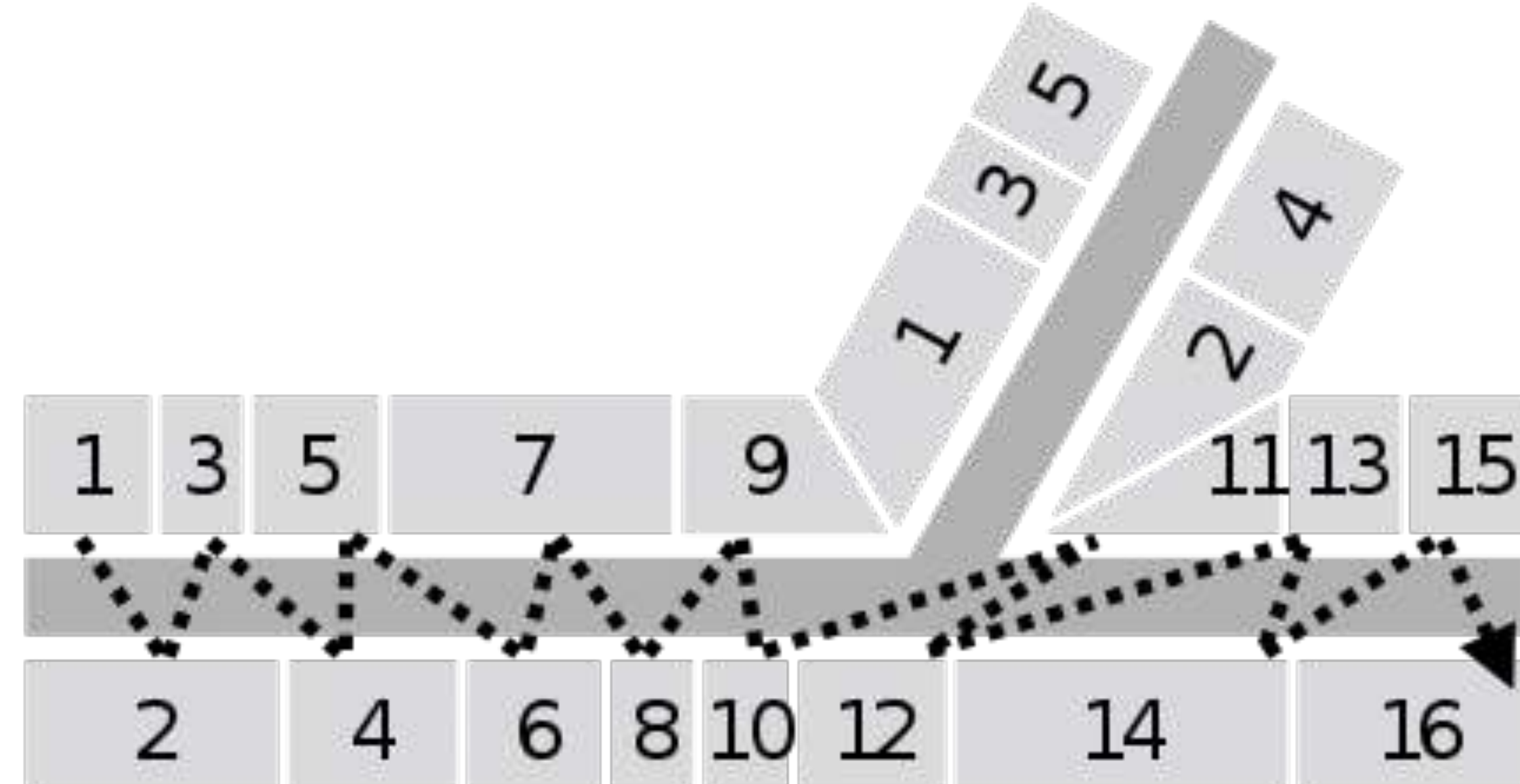
Q Milano, Italy



piazza della repubbl







[https://en.wikipedia.org/wiki/House\\_numbering](https://en.wikipedia.org/wiki/House_numbering)

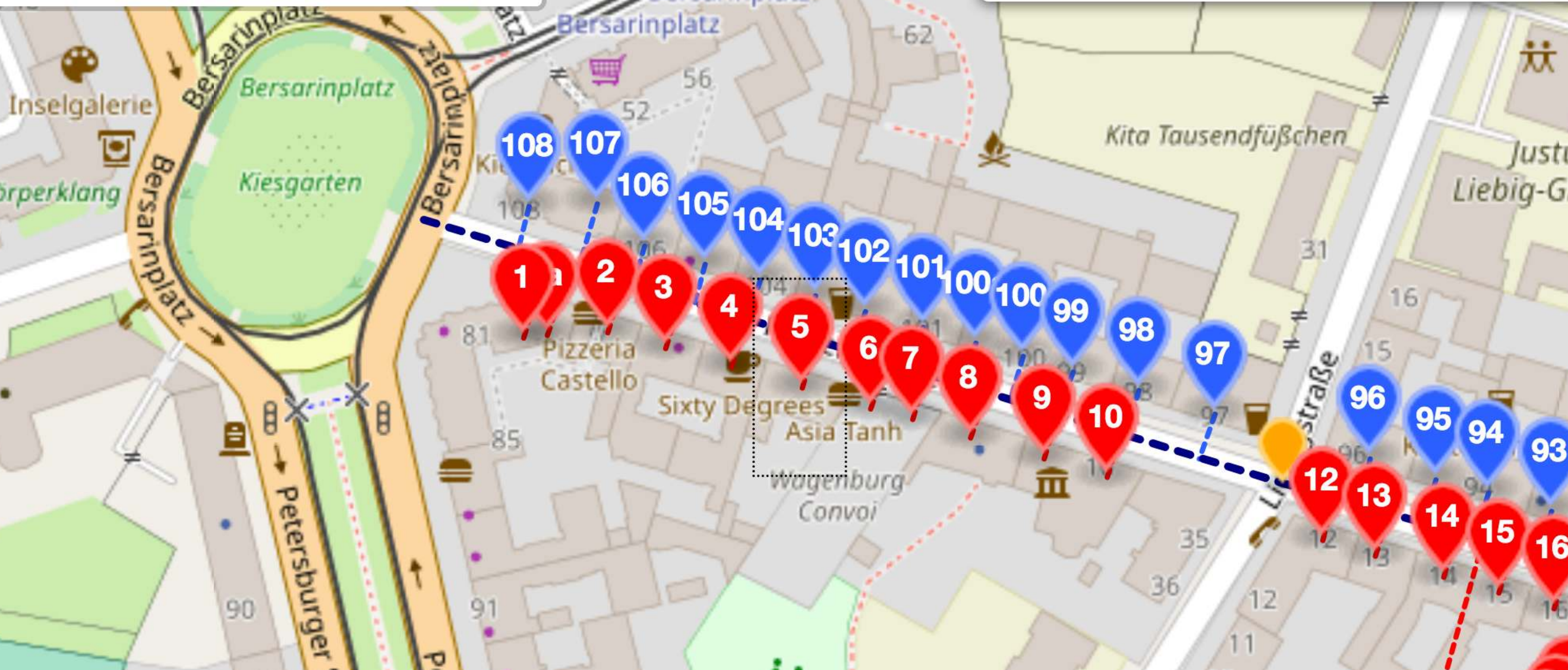
 @juliansimioni



Germany



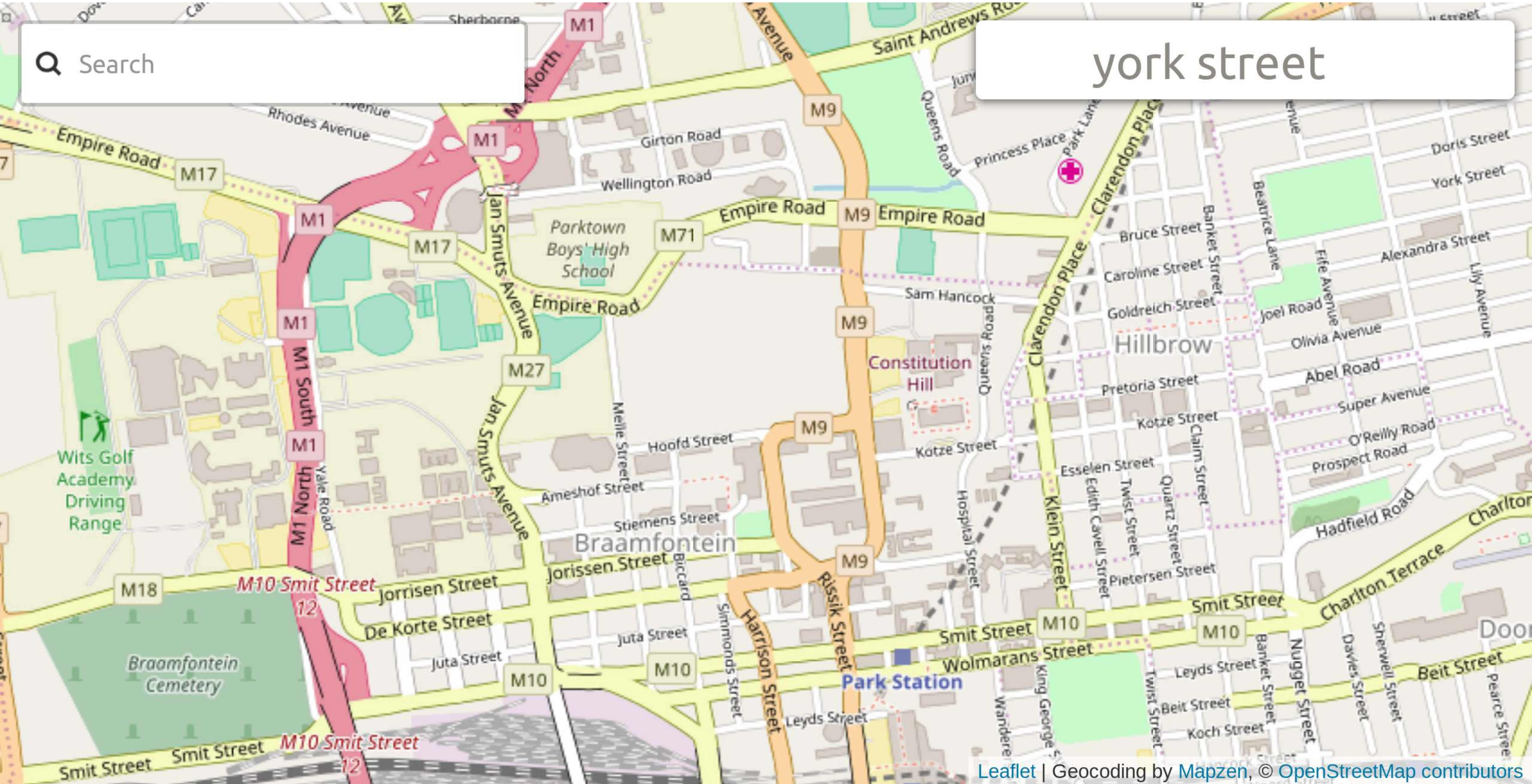
rigaer strasse





Search

york street



Leaflet | Geocoding by Mapzen, © OpenStreetMap contributors

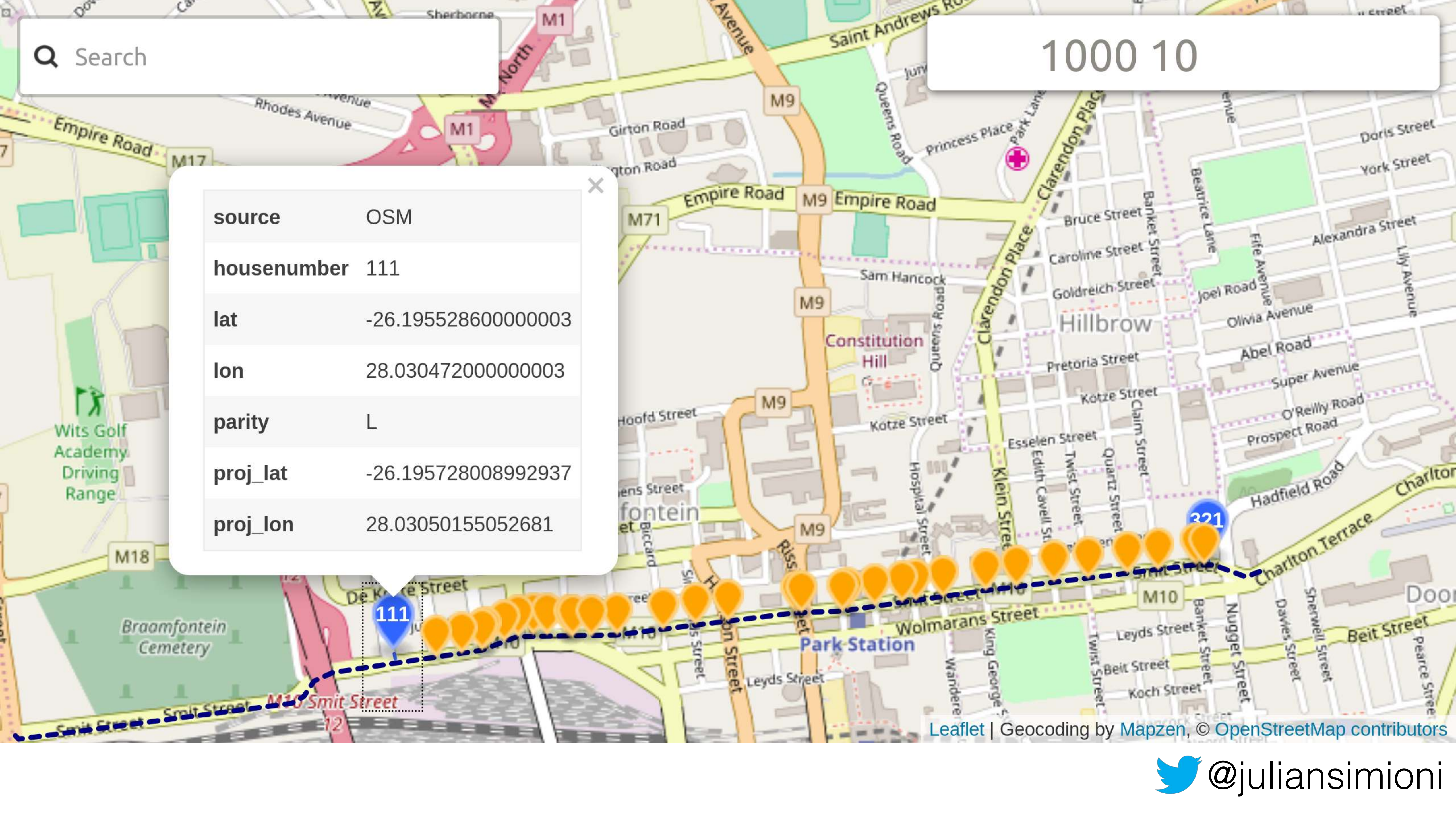
@juliansimioni



Search

1000 10

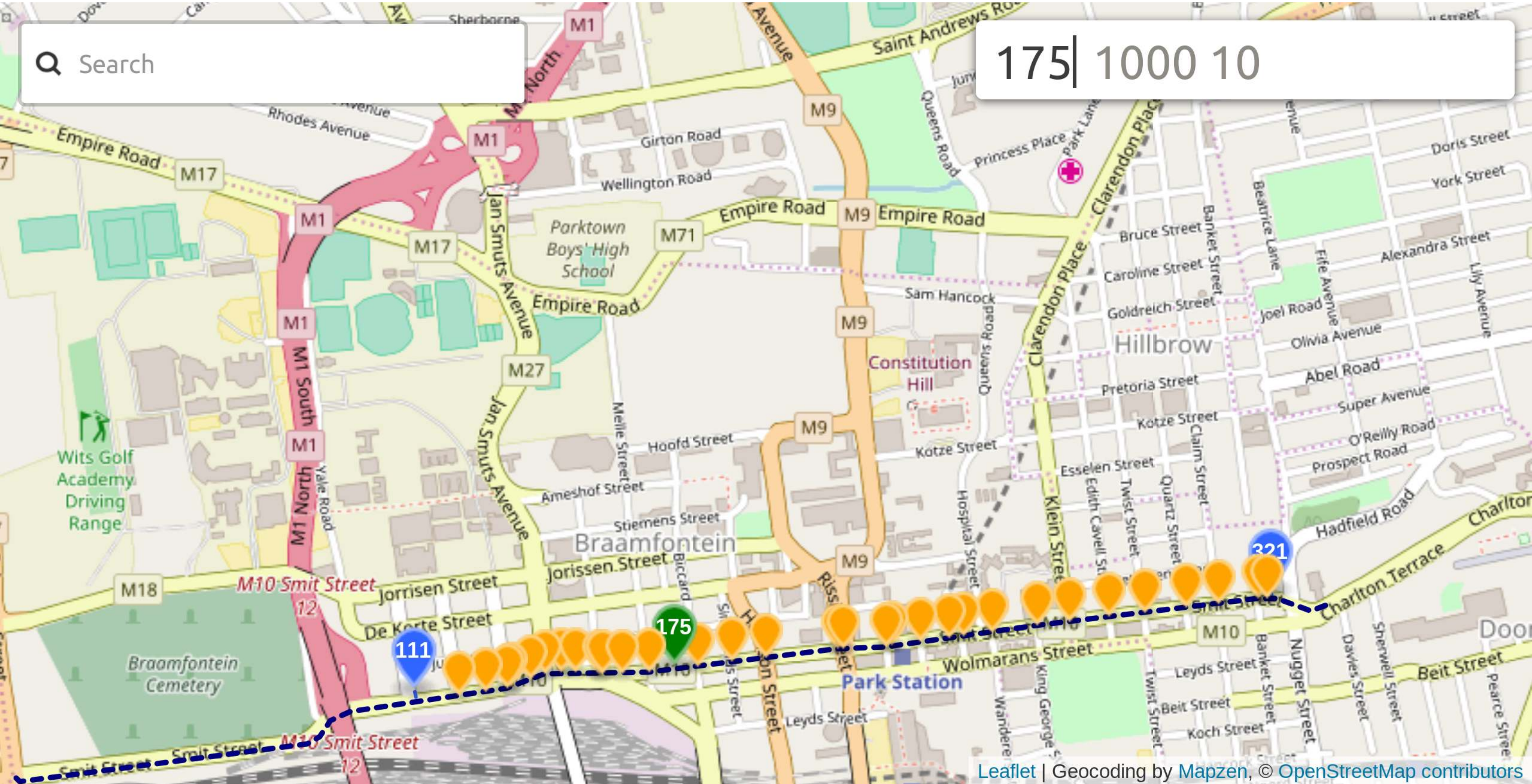
source	OSM
housenumber	111
lat	-26.195528600000003
lon	28.030472000000003
parity	L
proj_lat	-26.195728008992937
proj_lon	28.03050155052681





Search

175 | 1000 10



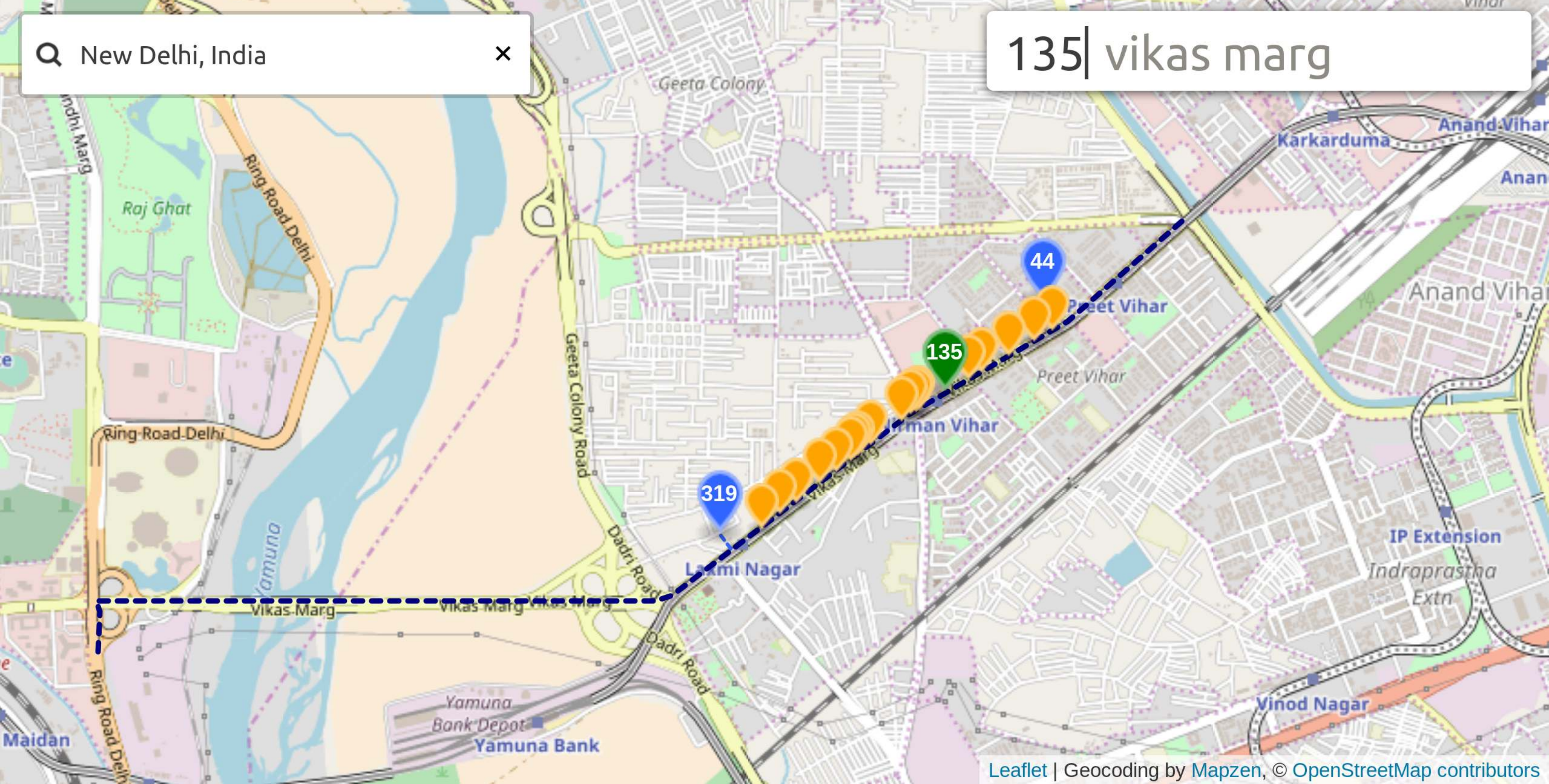
Leaflet | Geocoding by Mapzen, © OpenStreetMap contributors

@juliansimioni



🔍 New Delhi, India ✕

135 | vikas marg



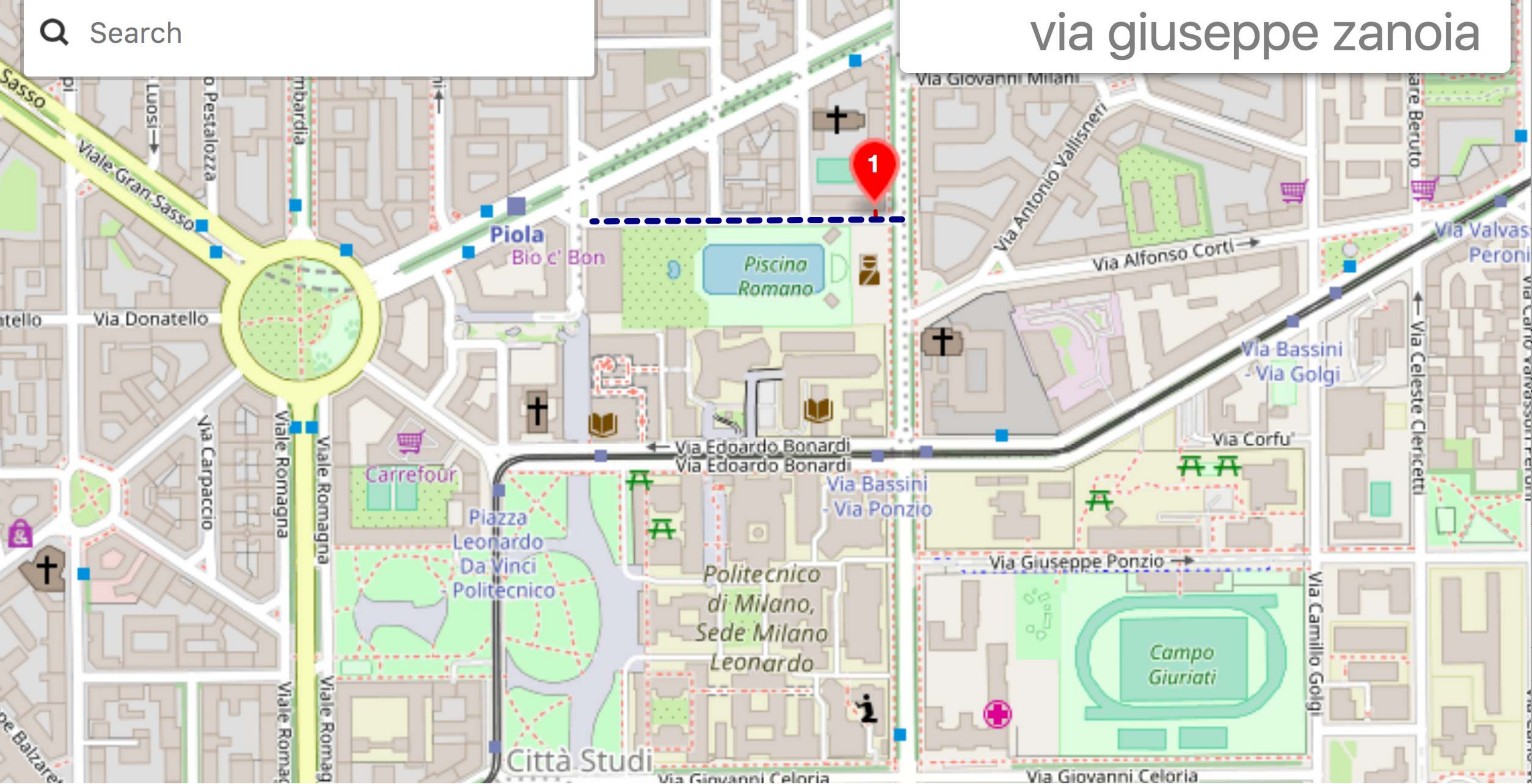
Leaflet | Geocoding by Mapzen, © OpenStreetMap contributors

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Search

via giuseppe zanoia









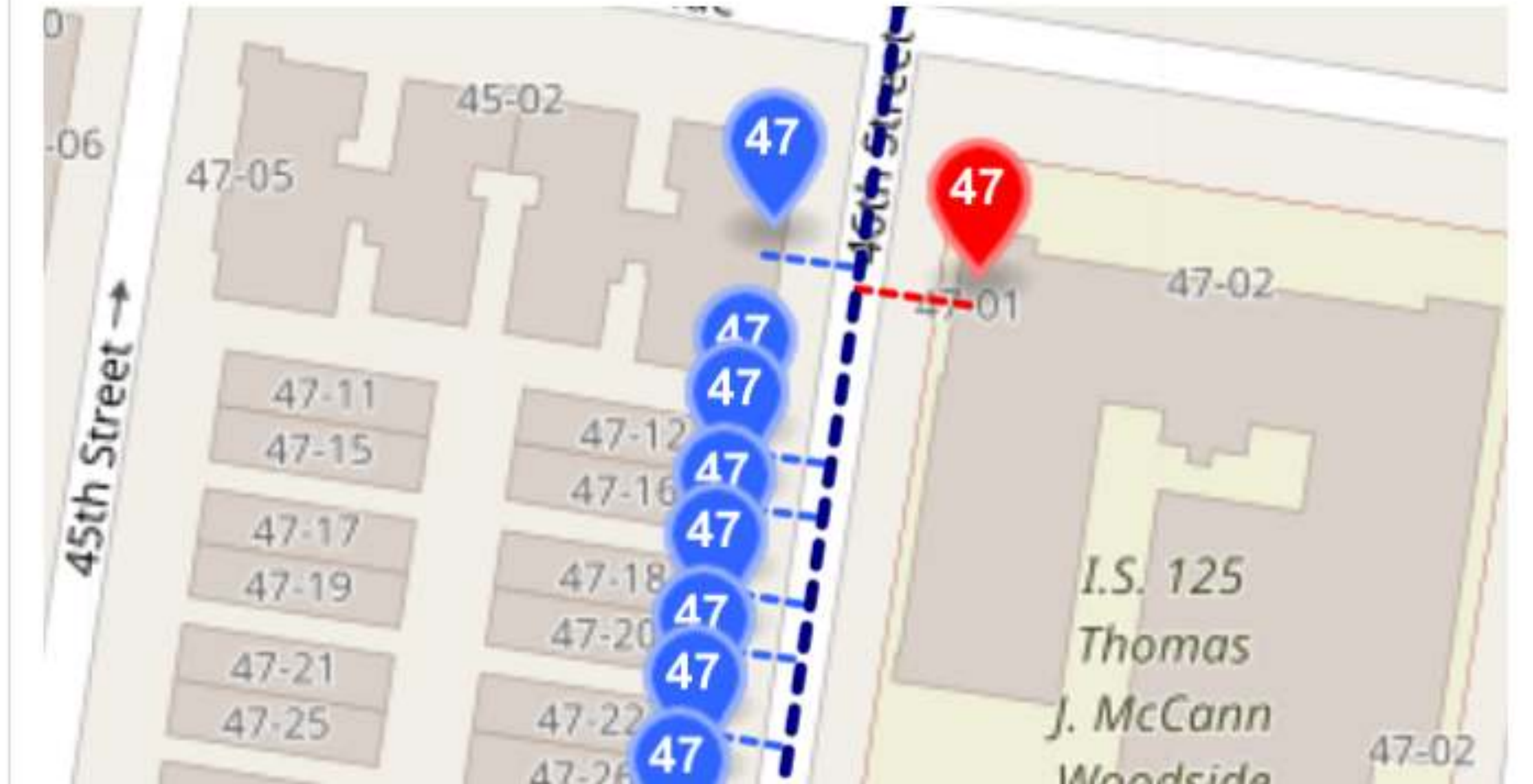


missinglink commented on Oct 18, 2016 • edited

Owner



these are the funky queens house numbers:



<https://github.com/pelias/interpolation/issues/1>

 @juliansimioni

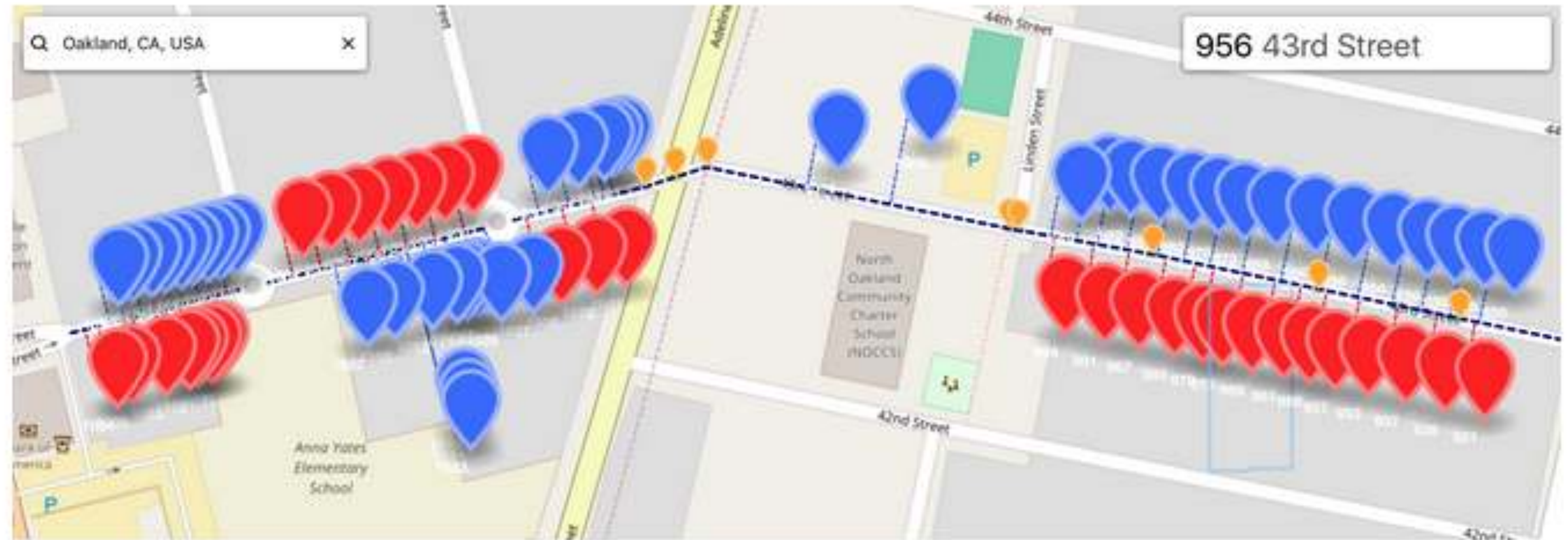




migurski commented on Oct 24, 2016



The even/odd switching in the western Emeryville section of 43rd St. is odd:



<https://github.com/pelias/interpolation/issues/19>

 @juliansimioni





missinglink commented on Dec 5, 2016 • edited

Owner



@migurski your OSM update has resolved the issue, thanks!



<https://github.com/pelias/interpolation/issues/19>

 @juliansimioni





missinglink commented on Oct 13, 2016 • edited

Owner



this issue: (Berlin, Germany)



<https://github.com/pelias/interpolation/issues/8>

 @juliansimioni

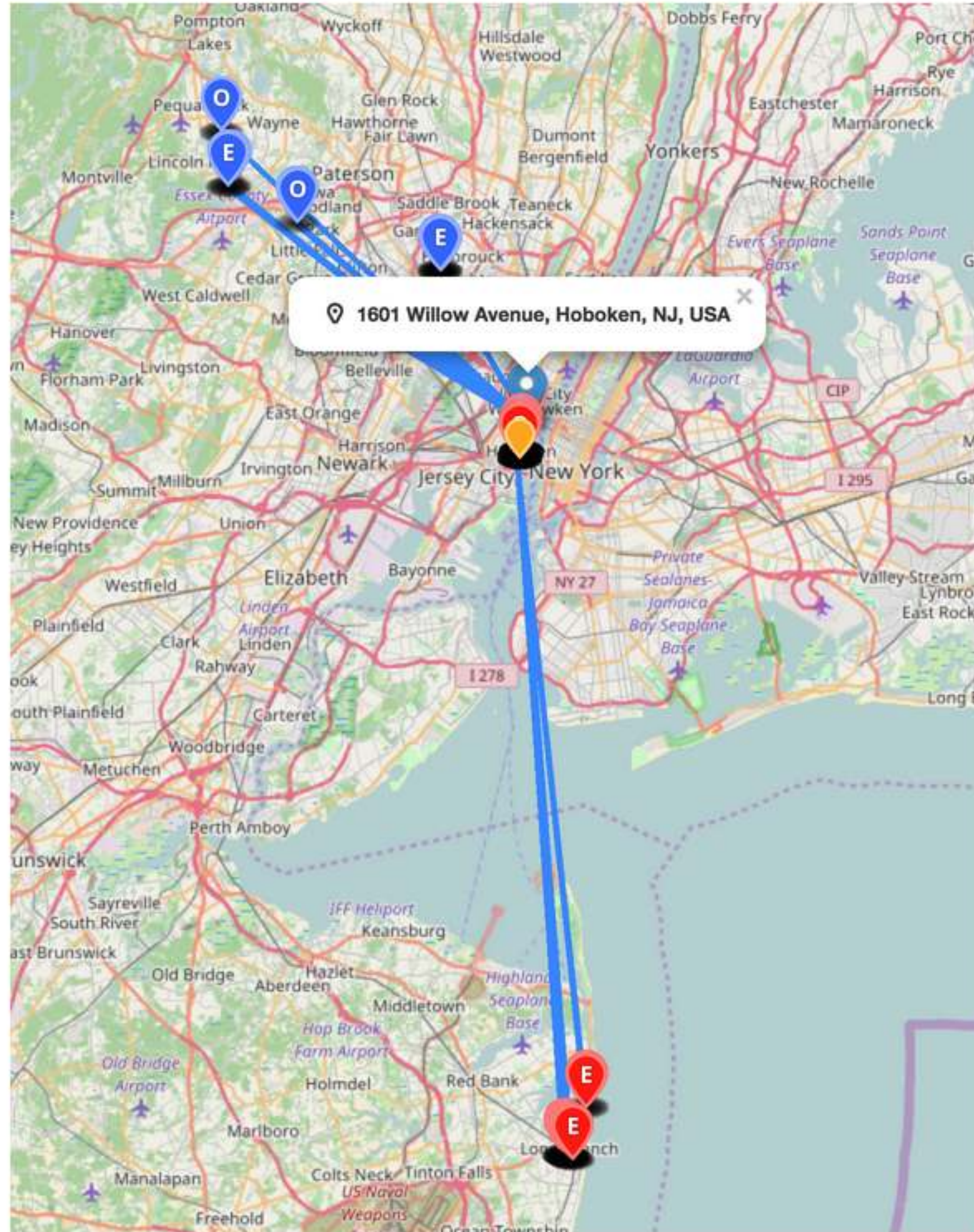




dianashk commented on Oct 17, 2016

Owner + 🗑️ ✎️

Search for this address: 1601 Willow Avenue, Hoboken, NJ and then click on the Willow Avenue. You can see at either end of the street there are far reaching offshoots.



<https://github.com/pelias/interpolation/issues/13>

 @juliansimioni



The Future

NEXT EXIT







# Autocomplete



# SPEED

Right now building the interpolation dataset takes 16 days :(





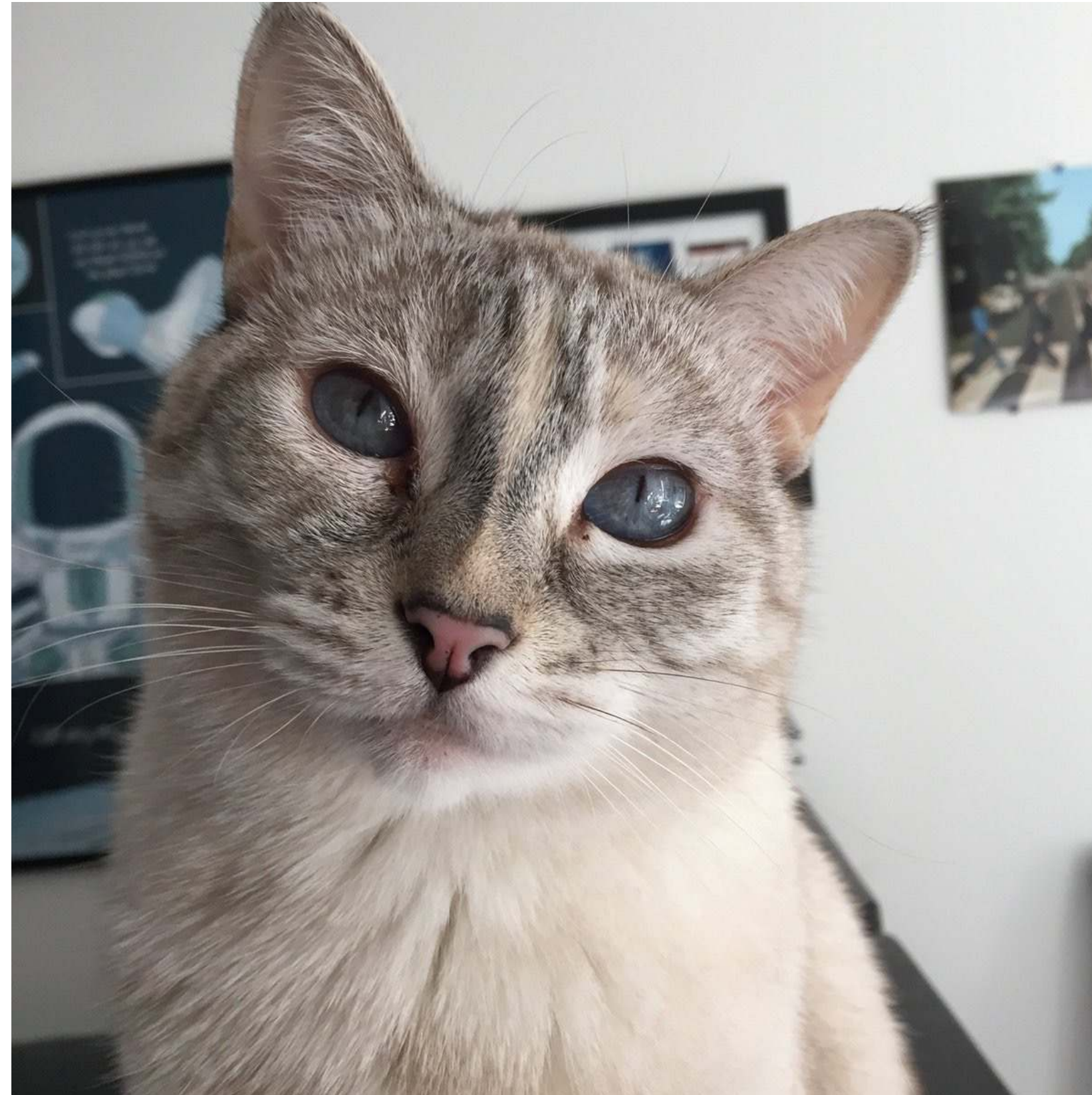


# What YOU Can Do

- Add streets to OSM
- Add street **names** to existing streets
- Add addresses to existing OSM venues
- Add **postal codes** to addresses
- Extra fancy: add address ranges to streets



# Thank You!



[twitter.com/juliansimioni](https://twitter.com/juliansimioni)

 @juliansimioni