

OPEN MAPPING EDUCATION SERIES

OPENSTREETMAP MODULES 1-3

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OPENSTREETMAP MODULE 2

EDITING AND TAGGING WITH iD EDITOR



LEARNING OBJECTIVES

In this module, you will learn three basic steps to add a feature to OpenStreetMap using the iD Editor:

1. Digitize an object by tracing it using aerial imagery. In this exercise, you will trace the footprint of a building and a length of road.
2. ‘Tag’ the object. In other words, add identifiers and a description of the object. highway=residential, name= “Magnolia Lane”
3. Compare OpenStreetMap road data with U.S. Census TIGER data.
4. Save the features you mapped by adding a brief note describing your mapping activity (as a changeset comment) and save!

Time to complete: ~30-40 minutes, with self-paced learning breaks



THINGS TO KNOW BEFORE YOU START

1. Use a mouse and a laptop/desktop. Trackpads and tablets don't work well for mapping.
 - a. You'll find it far easier to map if you can use the mouse to zoom in/out and center the map/image.
 - b. You'll also find tracing much more accurate using a mouse because you can snap to features cleanly.
2. Don't copy from other maps! Maps from Google, Bing, Here, Mapquest, etc. are protected by copyright.
 - a. The data from big, commercial map services are proprietary to those companies.
 - b. It is okay to use public domain data sources, such as US Census Bureau's TIGER
 - c. It is okay to use data specifically licensed for use in OSM, such as Bing aerial imagery

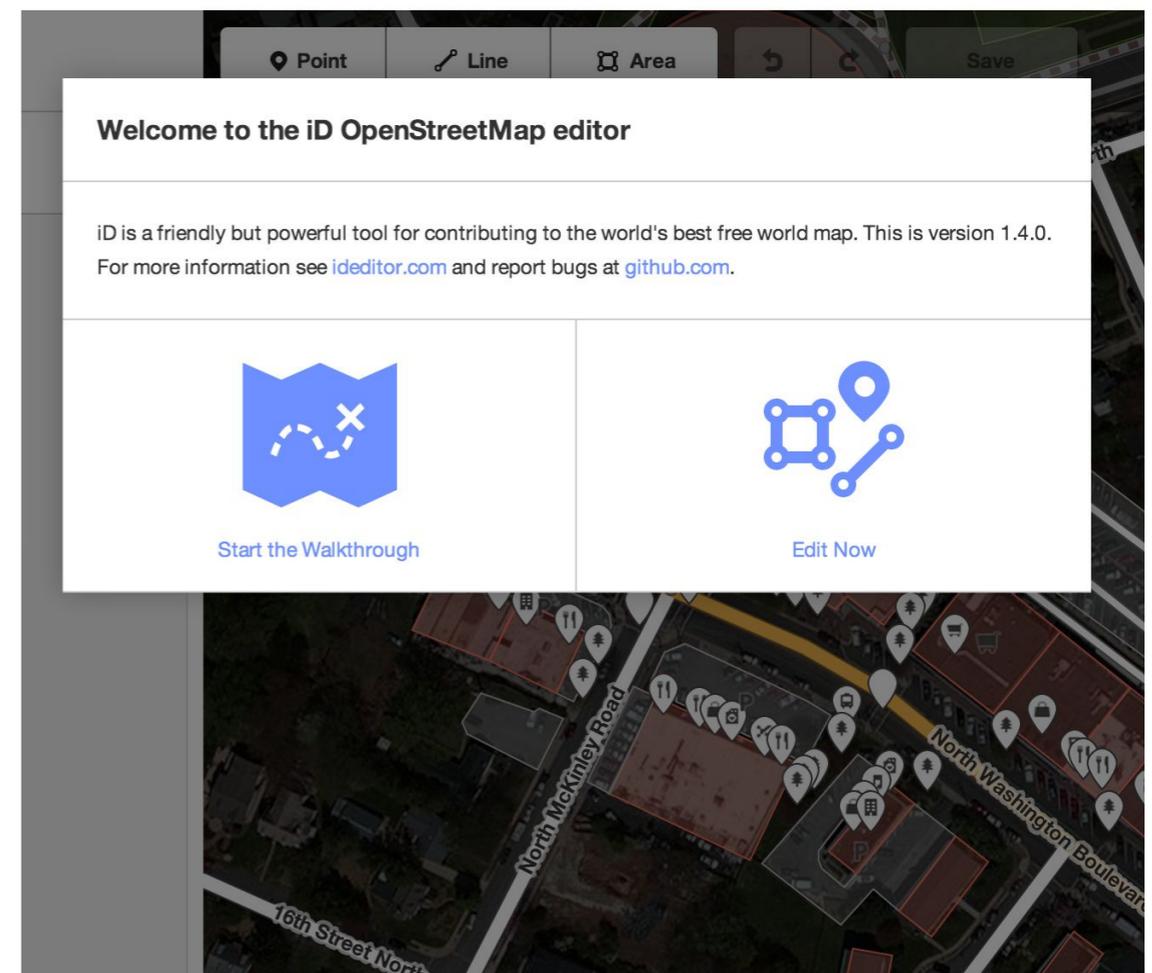




PART ONE - iD EDITOR WALKTHROUGH

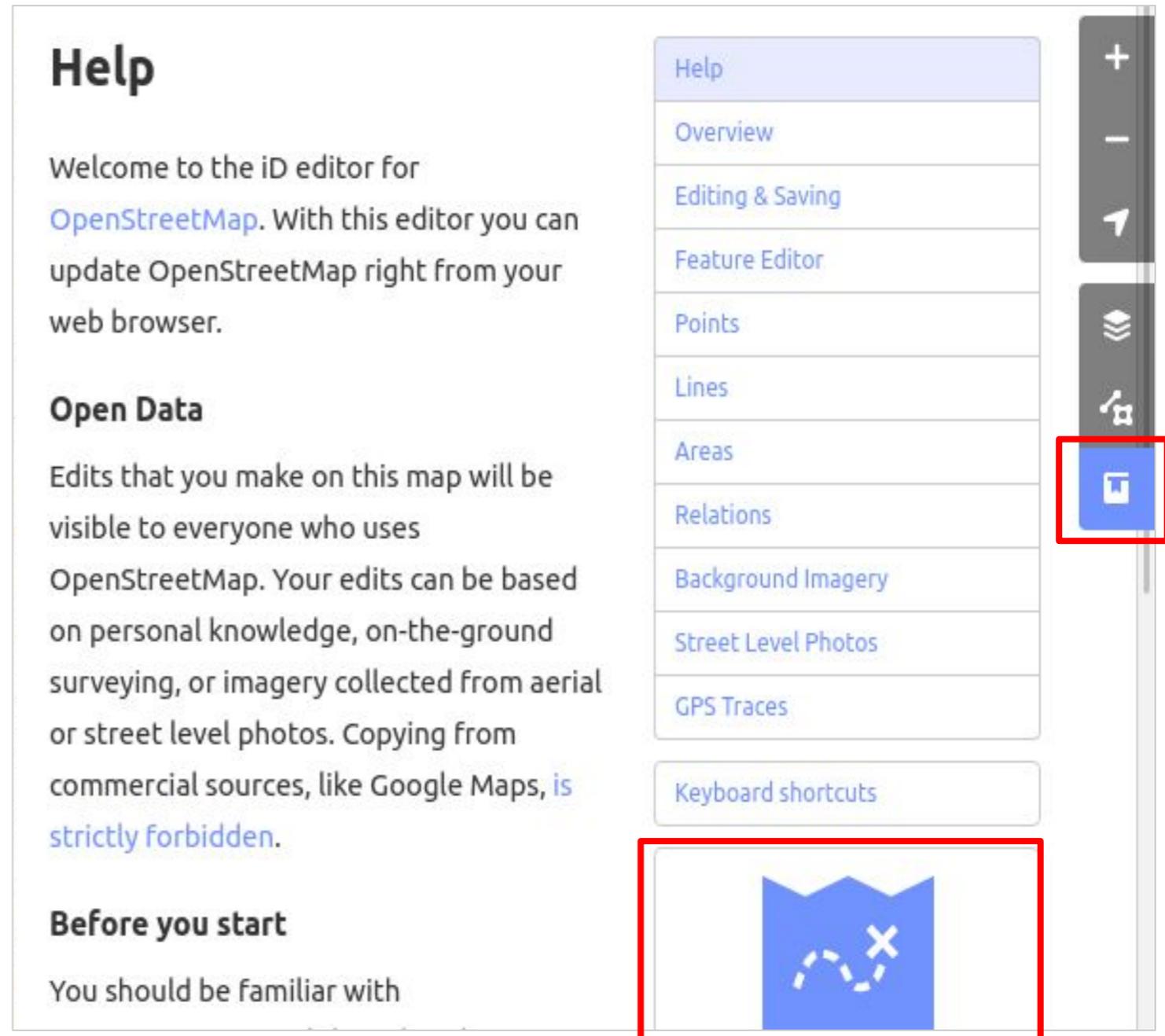
GETTING STARTED WITH iD EDITOR

- Log into your OpenStreetMap account
- Zoom into an area that is familiar to you (you will not be allowed Edit unless you are zoomed in far enough)
- Click on the Edit button on the top left hand corner of the OSM map window, and choose iD Editor
- Choose to go through the iD Walkthrough tutorial upon pop-up and complete the tutorial.



ACCESS THE WALKTHROUGH USING HELP

- Click on the 'Help' Icon
- Scroll down and click on 'Walkthrough' to complete the introductory lesson which will take 15 minutes to complete.
- Complete the walkthrough and continue the module.



Help

Welcome to the iD editor for [OpenStreetMap](#). With this editor you can update OpenStreetMap right from your web browser.

Open Data

Edits that you make on this map will be visible to everyone who uses OpenStreetMap. Your edits can be based on personal knowledge, on-the-ground surveying, or imagery collected from aerial or street level photos. Copying from commercial sources, like Google Maps, is [strictly forbidden](#).

Before you start

You should be familiar with

Help
Overview
Editing & Saving
Feature Editor
Points
Lines
Areas
Relations
Background Imagery
Street Level Photos
GPS Traces
Keyboard shortcuts

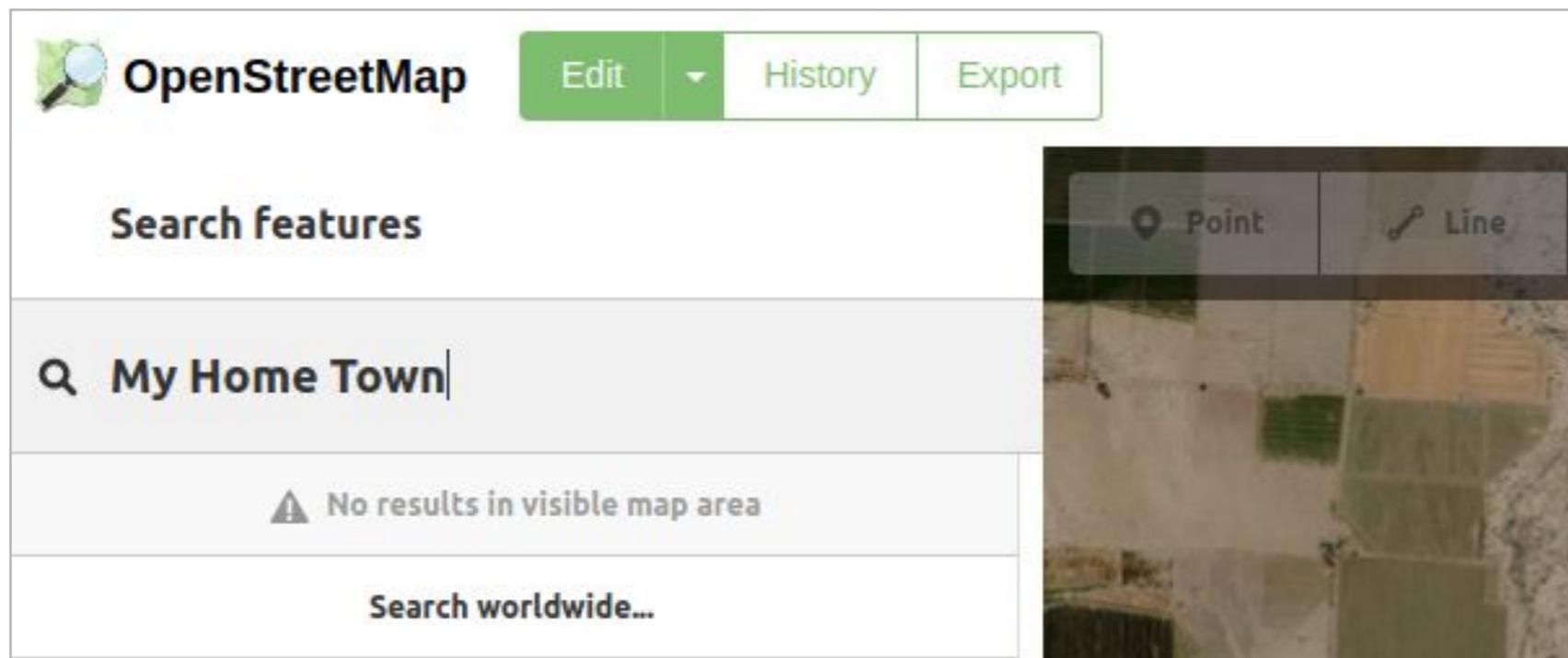
Walkthrough



PART TWO - ADD A BUILDING

SEARCH FOR AN AREA OF INTEREST

- Use the search box to enter a place name such as your town, or a place you know well. Click 'Search Worldwide'.



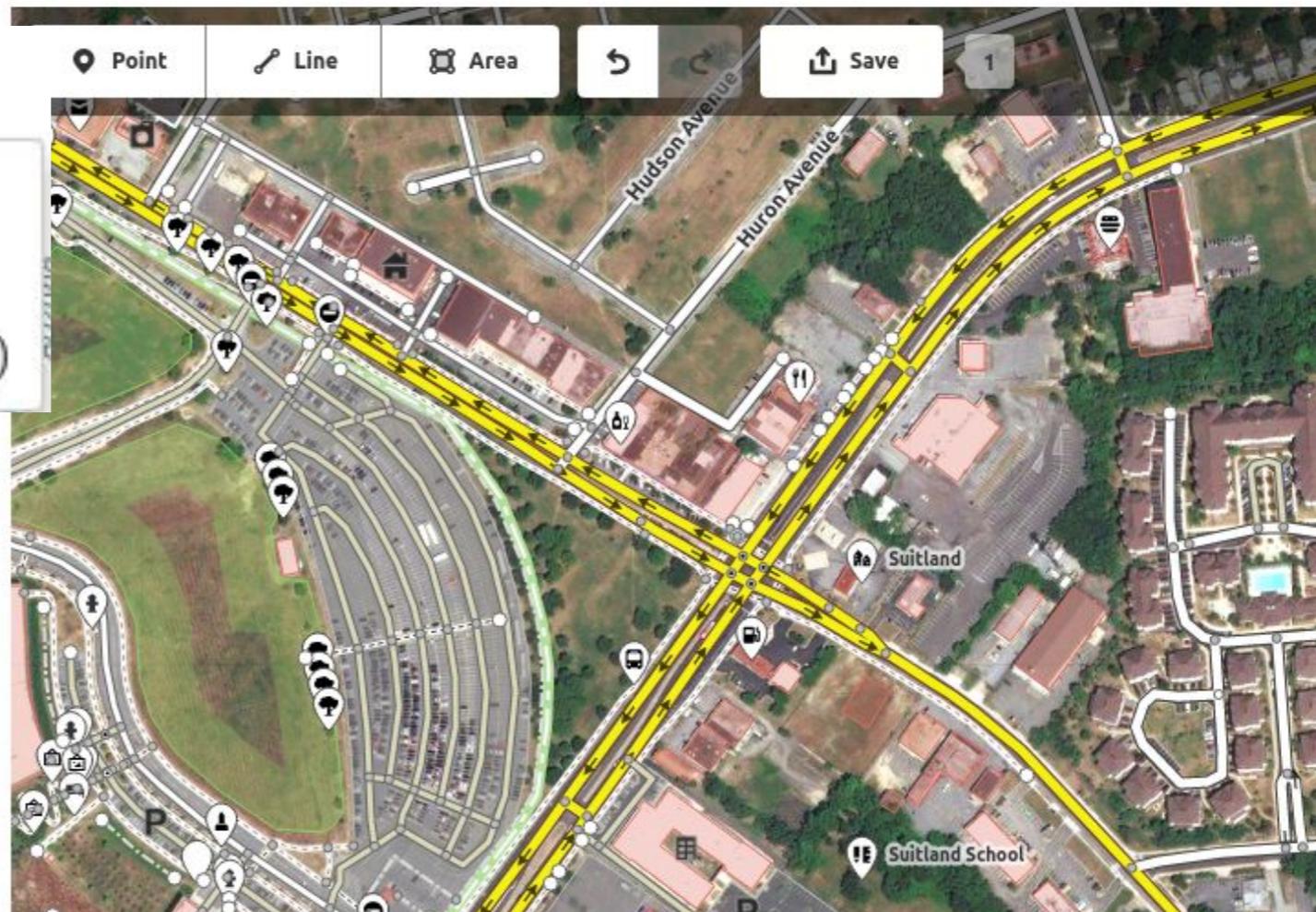
- Options will be listed below the search box. Select the correct geography.

OPEN THE iD EDITOR

- On the left top corner, click the dropdown arrow in the 'Edit' box.
- Select 'Edit with iD (in-browser editor)'. The base map will change from the OpenStreetMap layer to an aerial image. Any edits to roads, points of interest, and buildings will be visible.



GPS Traces User Diaries Copyright



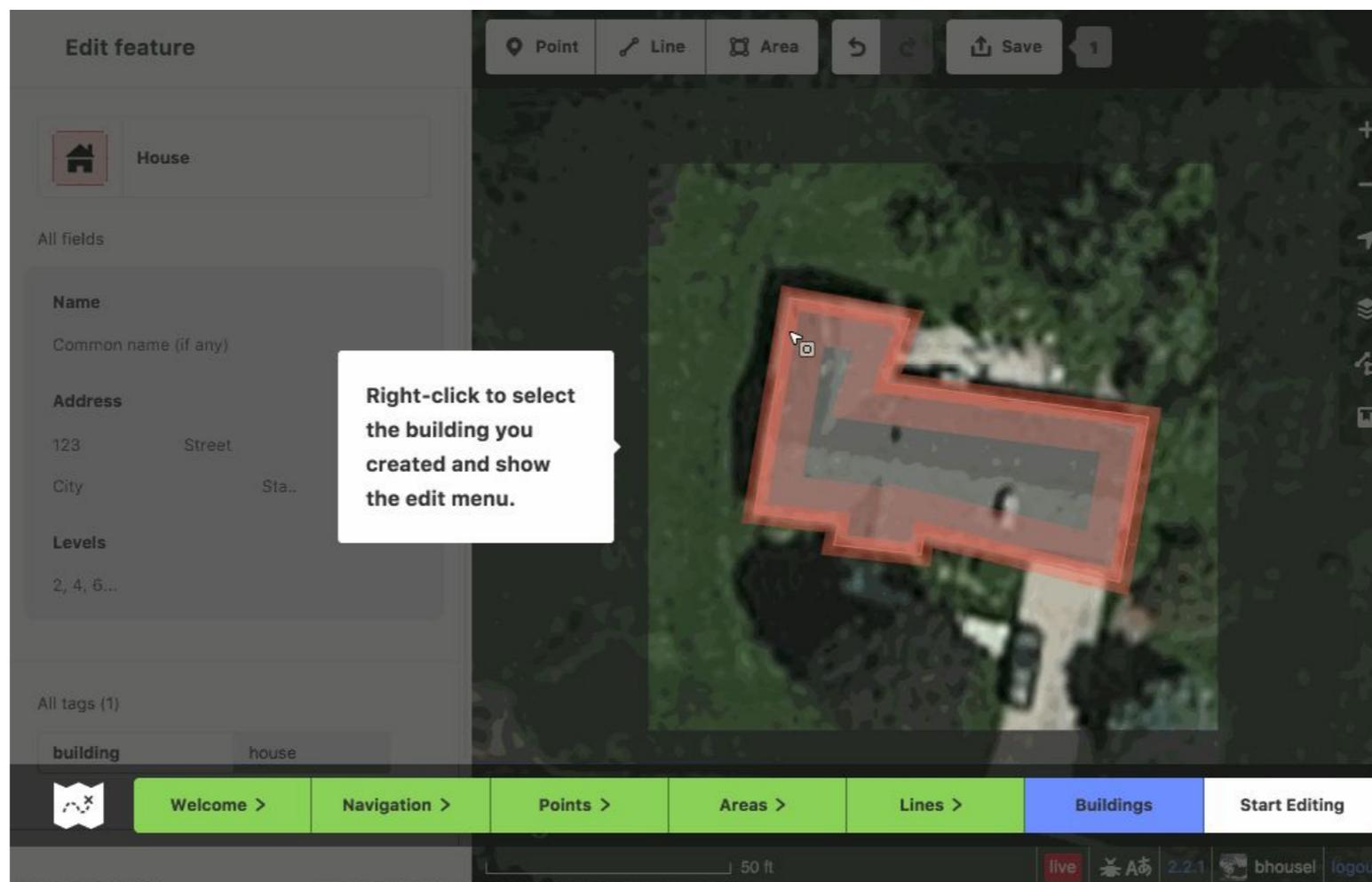
CHOOSE A BUILDING TO ADD TO THE MAP

- Select a building that is unmapped. Center your view on the building you intend to add to the map. For example, public buildings such as libraries, schools, fire/police stations, etc., make good first edits. Check to see if your library or high school is mapped.
- Zoom In. You must accurately trace the building footprint. Do not guess; zoom in so you can see the building corners clearly. The images below show the correct & incorrect zoom levels for adding buildings.



TRACE & SQUARE THE BUILDING

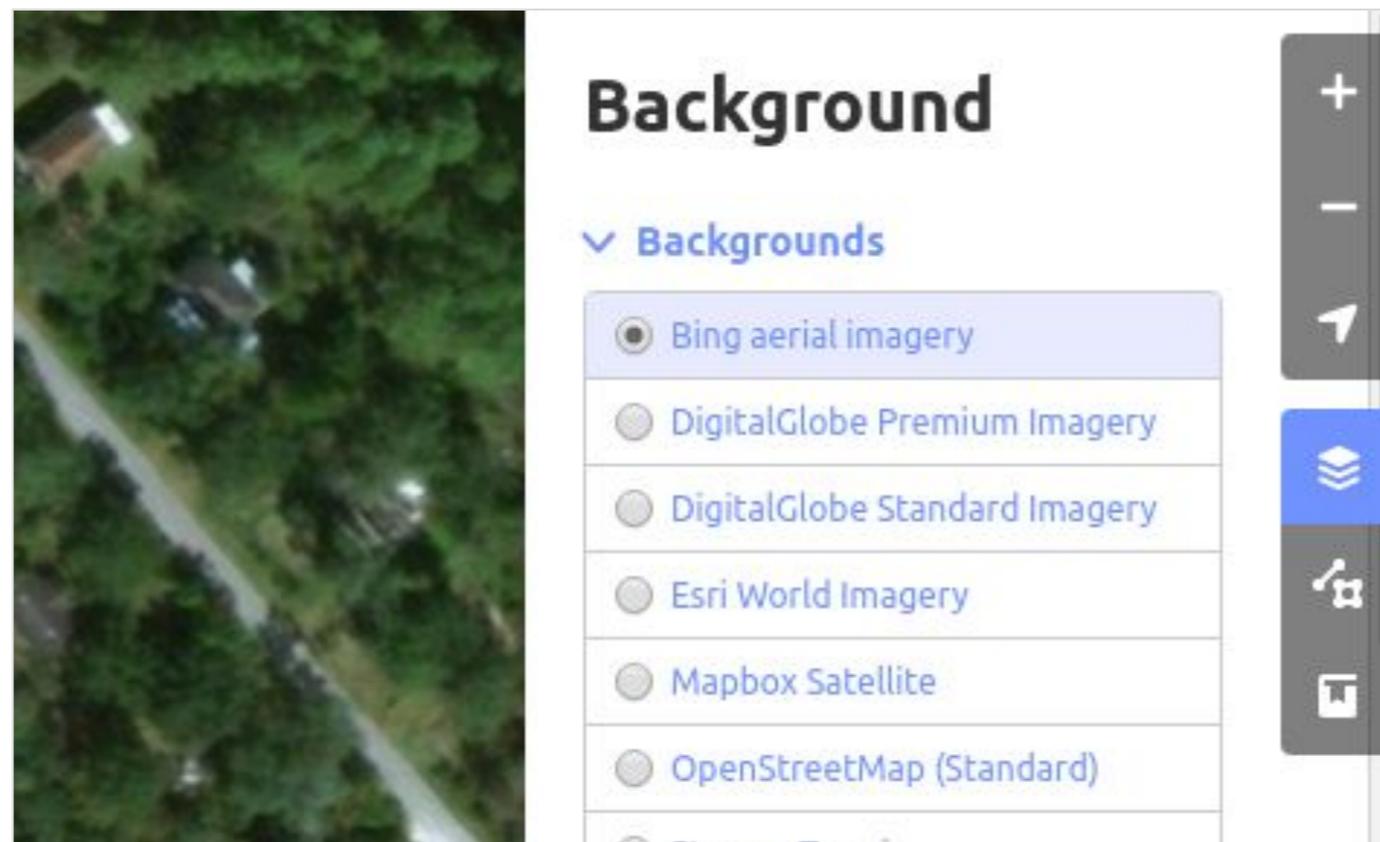
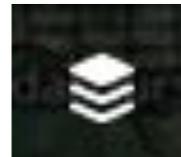
- Connect the vertices and trace the edges of the building. Double-click on the last vertex to finish tracing.
- Make sure you square the corners of your building as shown in the figure below. It contributes to data quality and it is good cartographic practice to be as accurate as possible.



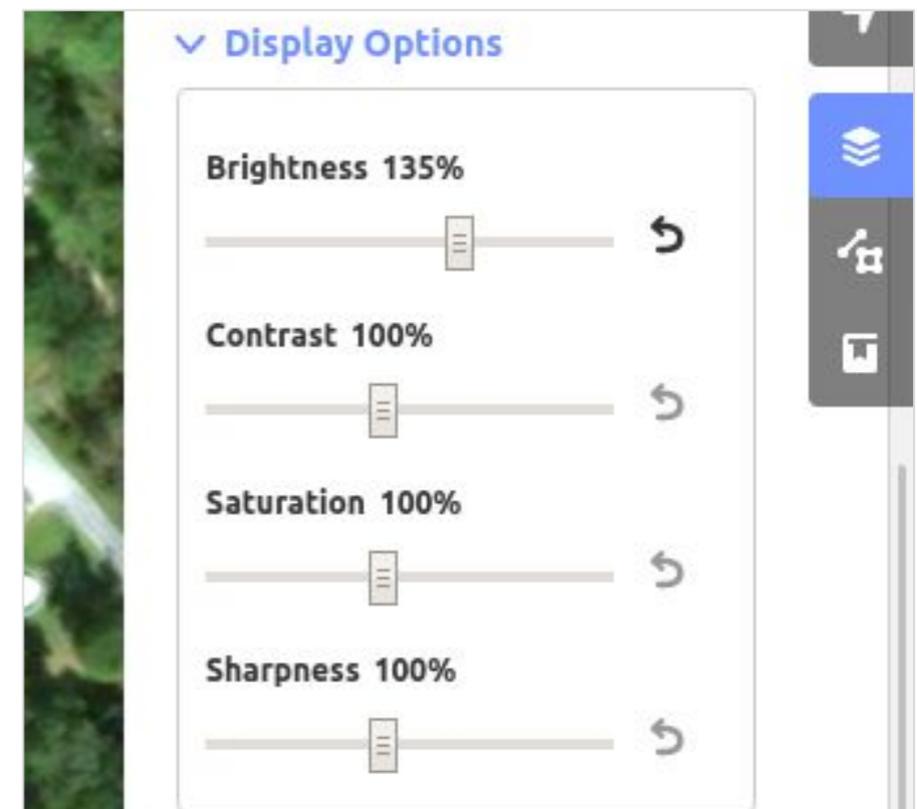
CHANGE THE BACKGROUND

Sometimes imagery is not clear & you must change your map view.

Click 'Background Settings'



Click to change satellite source or see different background options



To alter the background, scroll down to 'Display Options' & move the sliders left or right.



PART THREE - TAG A BUILDING

TAGGING FEATURES

When we ‘tag’ something on OpenStreetMap, we’re doing two things:

1. Giving OpenStreetMap an identity for this point/line/polygon. In this case, we tell OpenStreetMap that this is a building.
2. Adding descriptive attributes. In other words, adding some defining characteristics. For our building example, we might add an address, name of the institution or business, and phone number.

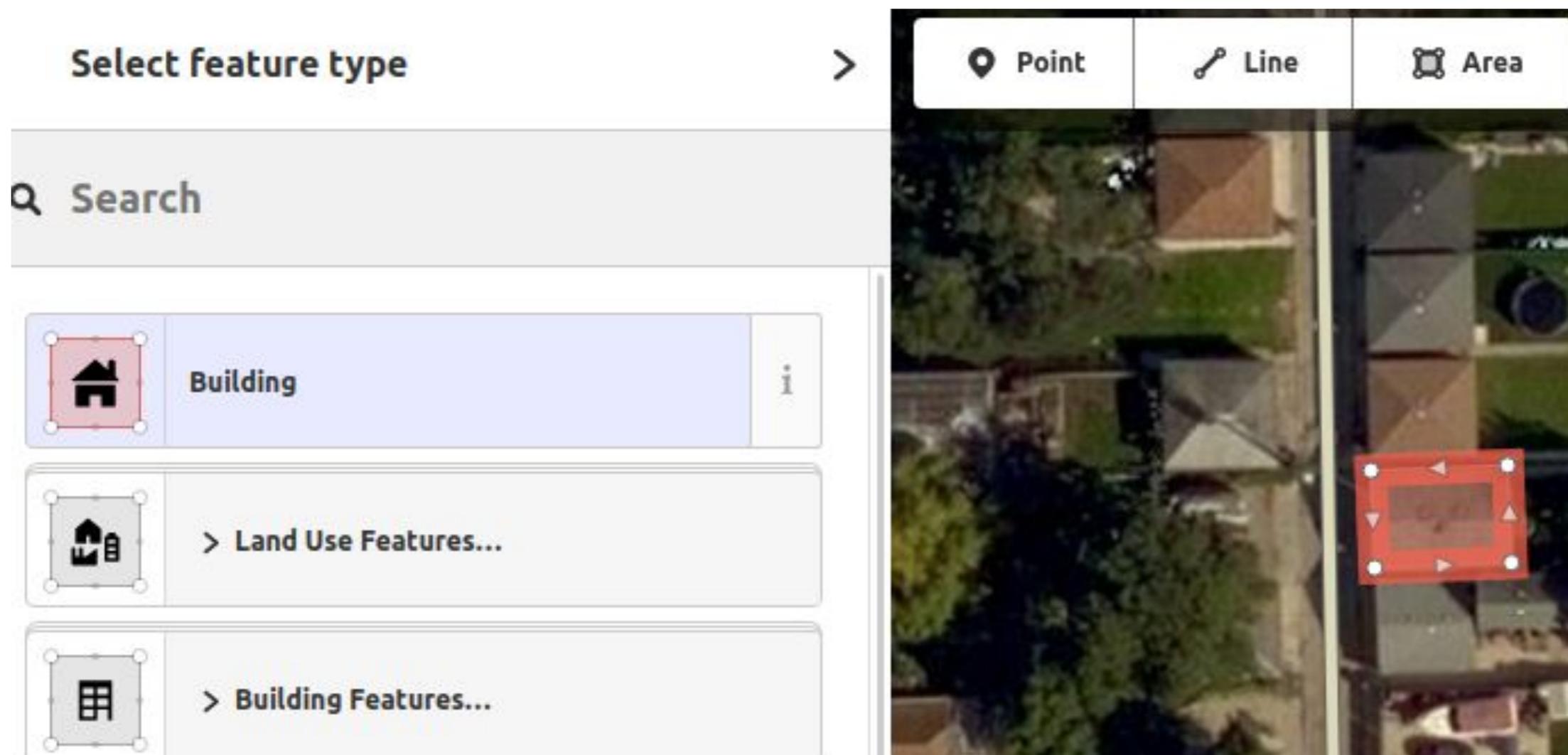
Tags are made up of keys and values.

1. The key describes a broad class of features (for example, highways).
2. The value details the specific feature that was generally classified by the key (e.g. highway=motorway).



APPLYING THE TAG

Click on your building to select it. The color outline changes to indicate the feature has been selected, as shown in the figure below. The red box in the image indicates that a building has been selected.



APPLY TAG FEATURE DETAILS

The screenshot shows a mobile application interface for editing a feature. At the top, there is a header with a back arrow, the text 'Edit feature', and a checkmark. Below the header, a red house icon is shown next to the word 'Building' and an information icon 'i'. A blue arrow points to 'All fields'. The form contains several sections: 'Name' with a sub-field for 'Common name (if any)'; 'Building' with a dropdown menu set to 'yes' and icons for delete, undo, and info; 'Levels' with a dropdown menu set to '2, 4, 6...'; 'Address' with sub-fields for '123', 'Street', 'Unit', 'City', 'State', and 'Postcode'; and an 'Add field:' section with a dropdown menu showing 'Description, Elevation, Email...'. Each section has an information icon 'i'.

- Once 'Building' is selected from the feature menu, a form appears.
- Add descriptive information about the building here. For example, Address / Building type / Building name (if any) / Number of levels
- Scroll through the entire panel to see the attributes available for entry.



HOW TO FIND THE RIGHT TAG

It's good mapping practice to refer to the Map Features page on the OSM wiki. Open a new browser tab (Ctrl+T) and point to http://wiki.openstreetmap.org/wiki/Map_Features for a comprehensive list of the most popular tags.



- Main Page
- The map
- Map Features
- Contributors
- Help
- Blogs
- Shop
- Donations
- Recent changes

- Tools
- What links here
- Related changes
- Special pages
- Printable version
- Permanent link
- Page information
- Cite this page

Page Discussion

Map Features

Available languages — Map Fea

· asturianu · azərbaycanca · Bahasa Indonesia · bosanski · català · čeština · corsu · dansk · Deutsch · eesti · kréyòl gwadloupéyen · latviešu · lietuvių · magyar · Nederlands · norsk bokmål · polski · português · română · български · македонски · русский · українська · Ελληνικά · ქართული · नेपाली · தமிழ் · བོད་སྐད་ཀྱི་སྐད་ཀྱི་སྐད་ · 한국어 ·

Other languages — Help us tra

OpenStreetMap represents physical **features** on the ground (e.g., roads or buildings) using **tags** attached to nodes, ways or relations. Each tag describes a geographic attribute of the feature being shown by that specific node, way or relation.

OpenStreetMap's **free tagging system** allows the map to include an unlimited number of attributes and combinations for the most commonly used tags, which act as informal standards. However, users can also use tags on previously unmapped attributes of the features. Short descriptions of tags that relate to particular features are listed below.

Most features can be described using only a small number of tags, such as a path with a classification tag. But, since this is a worldwide, inclusive map, there can be many different feature types in OpenStreetMap.

For details of more tags and proposed changes to existing tags see [Proposed Features](#), [Inactive Features](#) and [Proposed Features](#). You feel free to make something suitable up as long as the tag values will be **verifiable**. Over time, you may find that many good tags were used first and documented later.

Contents [hide]

- 1 Primary features
 - 1.1 Aerialway
 - 1.2 Aeroway
 - 1.3 Amenity

IMPORTANT TAG KEYS

[Key:highway](#) - For highways, roads, paths, footways, cycleways, etc.

[Key:place](#) - Used for countries, cities, towns, etc.

[Key:amenity](#) - Used for useful amenities like restaurants, drinking water spots, parking, etc.

[Key:shop](#) - Used for shops you buy products from.

[Key:building](#) - Used for buildings.

[Key:landuse](#) - Used for land used by humans.

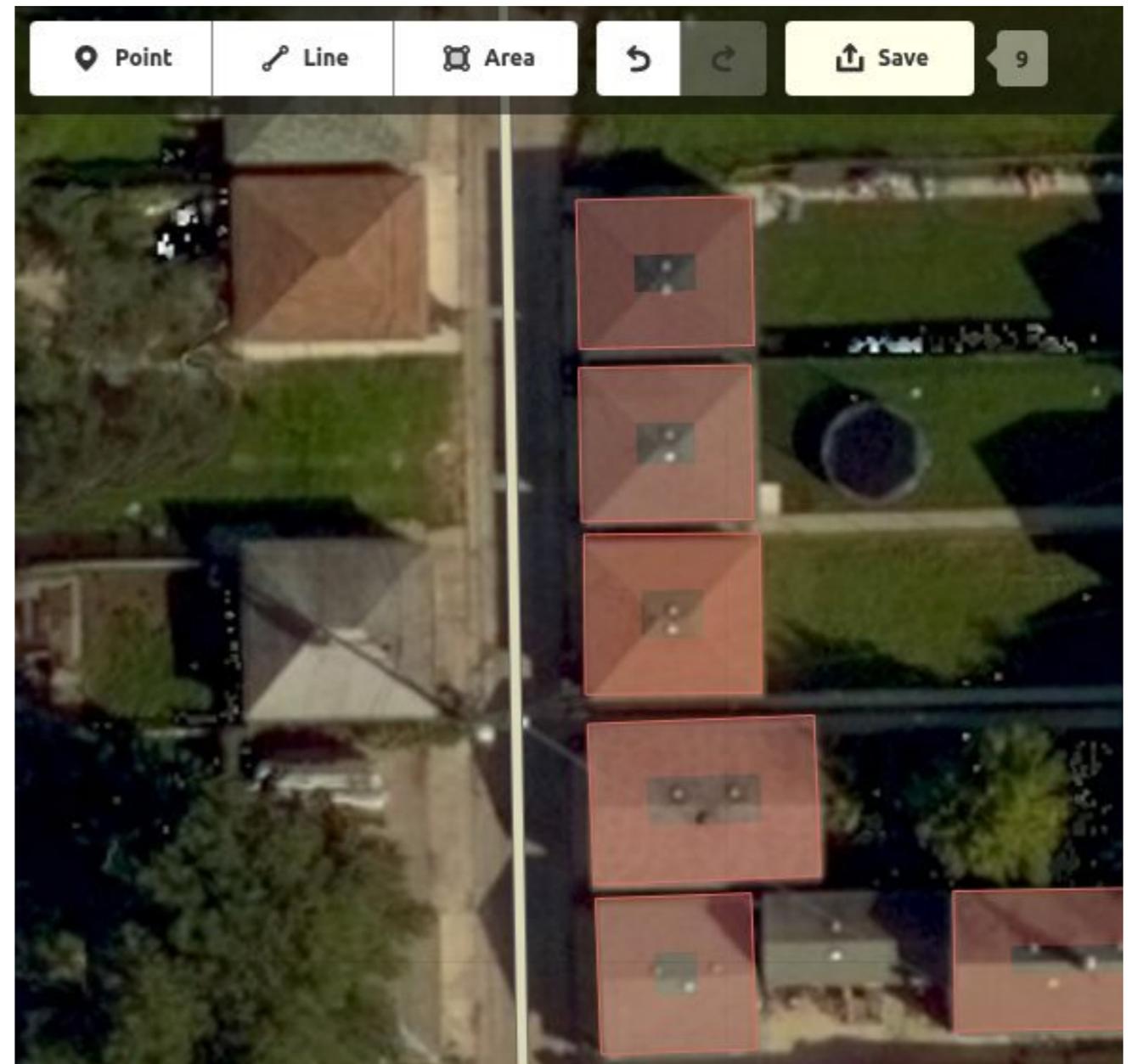
[Key:natural](#) - Used for natural land like forests.



SAVE YOUR EDITS

It's a good idea to save frequently, perhaps after you have added several features to the map.

Notice the indicator next to the 'Save' icon at the top of the screen, which shows 9 features not yet saved.



SAVE YOUR EDITS

Click **'Save'**. A box will appear.

Enter a short changeset comment that describes what you mapped.

For example, “Added buildings in residential district” or “Corrected road alignment using imagery”.

Your edits will be listed at the bottom of the box.

If it is your first edit, celebrate by adding **#myfirstedit** to the comment!

Upload to OpenStreetMap

Changeset Comment	i
Brief description of your contributions (required)	
#GWU #Botswana #GWUStudyAbroad	
#teachosm-task-488 #GWU #Botswana #GWUStudyAbr...	
#osmgeoweeek2017	
#teachosm-task-233 #map4america #ags #geography2... all maps that use OpenStreetMap data.	
<input type="checkbox"/> I would like someone to review my edits.	
Cancel	Upload

▶ All tags (6)

9 Changes

 Created Building
 Created Building
 Created Building



CONGRATULATIONS!

You just edited OpenStreetMap!



Your changes should appear in the "Standard" layer in a few minutes. Other layers, and certain features, may take longer.

[Details](#)



[View on OSM](#)



PART FOUR - ADD A ROAD

OpenStreetmap & the TIGER Dataset



- TIGER is geodata from the US Census Bureau
 - Road layer extracted
 - Useful as a quality check
- We can compare OpenStreetMap to TIGER to check for completeness & accuracy.
 - Rural areas of the US
 - Rapidly changing landscapes
- Why use TIGER?
 - Free! Public domain
 - Aims to be complete
 - Current - annual updates
- TIGER in the History of GIS:
<https://bit.ly/2IZfBLS>

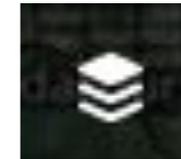
TIGER = Topologically Integrated Geographic Encoding & Referencing

- Over 25 years, TIGER has evolved into a dynamic mapping system that helped catapult the growth of the GIS industry and improve Census Bureau data products.
- Developed in preparation for the 1990 Census by the Census Bureau & the U.S. Geological Survey.
- TIGER was the first nationwide digital map of the U.S., Puerto Rico and other territories. Data updated annually and free to download by all.
- TIGER supports the Census Bureau's data collection and dissemination programs, and also support GIS work in many state and local governments.



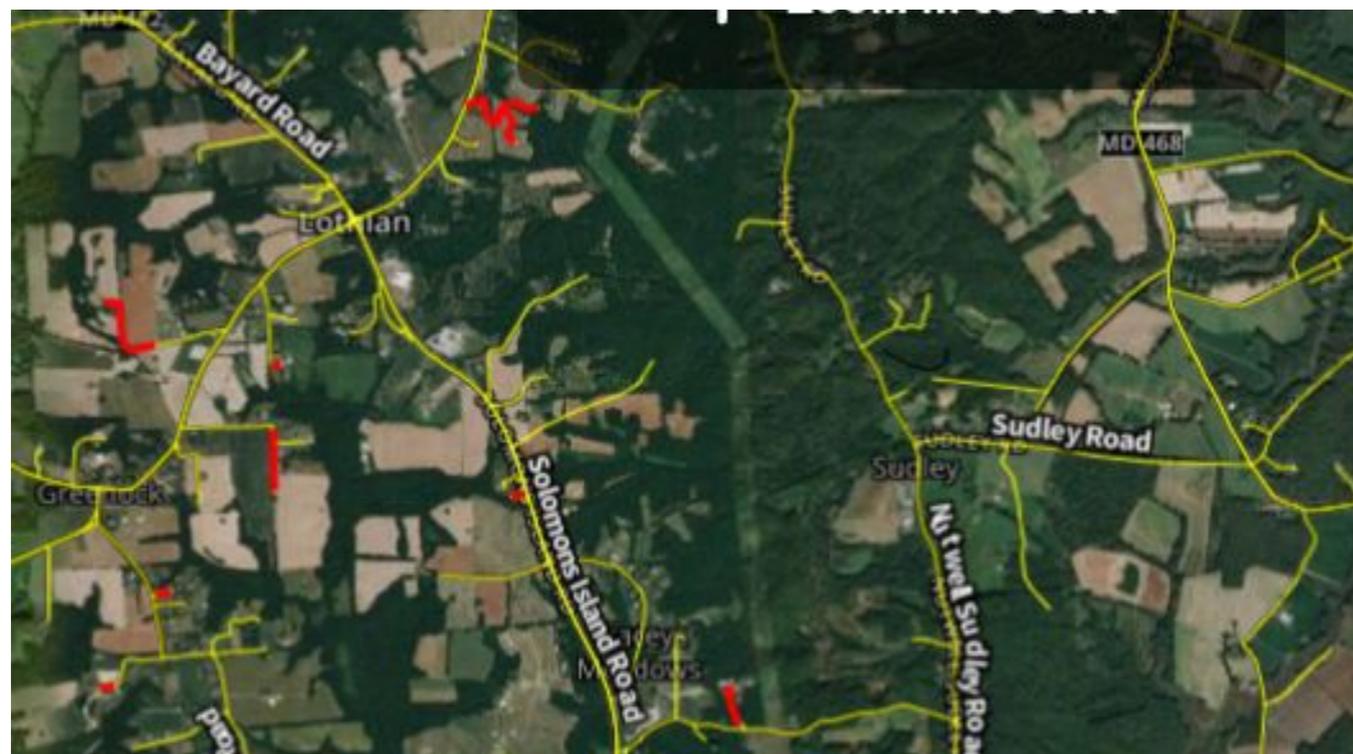
ADD THE TIGER ROADS OVERLAY

- Click on the 'Background Settings' icon
- Scroll down to 'Overlays'
- Check the box 'TIGER Roads 2017' to add the overlay
- Yellow roads indicate Public Domain data from the US Census. Red are data not found in OpenStreetMap.



Overlays

- Locator Overlay
- OpenStreetMap GPS traces
- TIGER Roads 2017



Overlays

- Locator Overlay
- OpenStreetMap GPS traces
- TIGER Roads 2017

Display Options

Brightness 100%

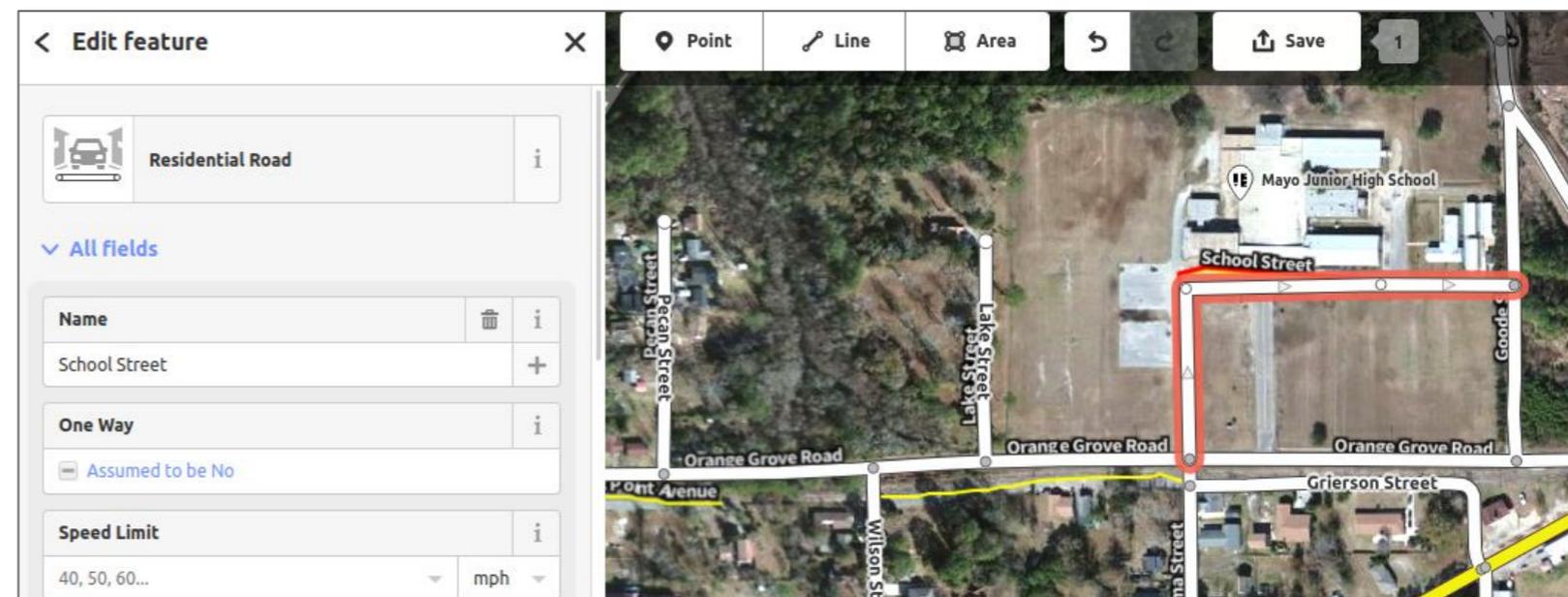
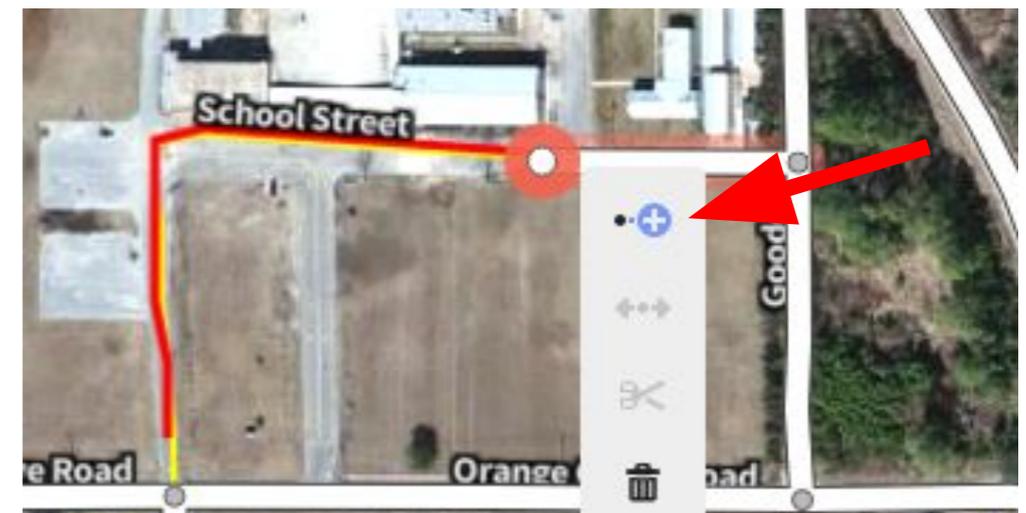
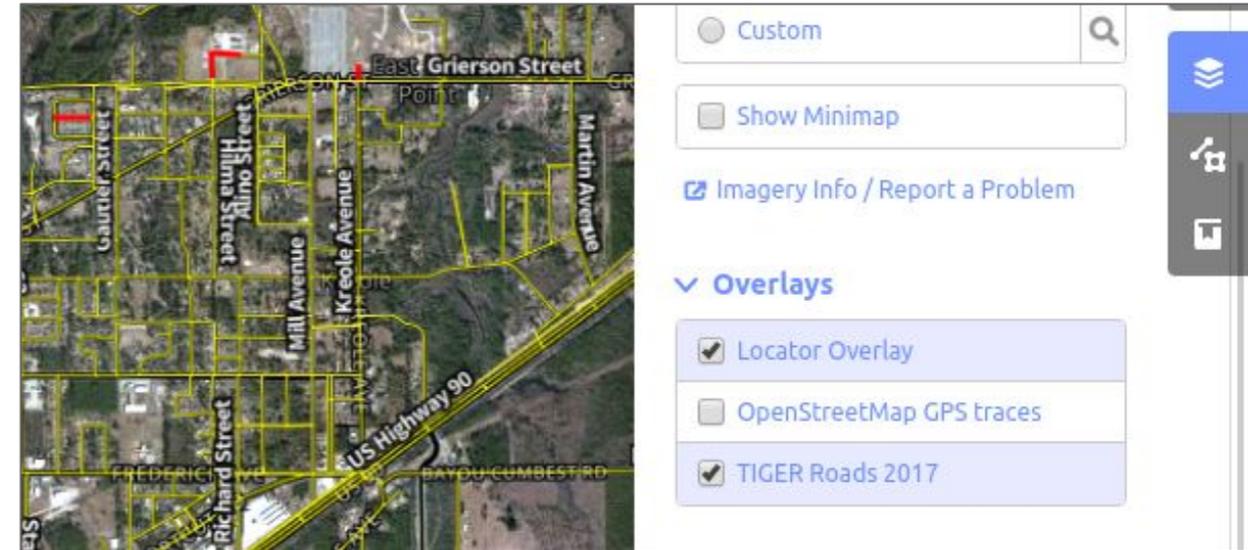


Contrast 100%



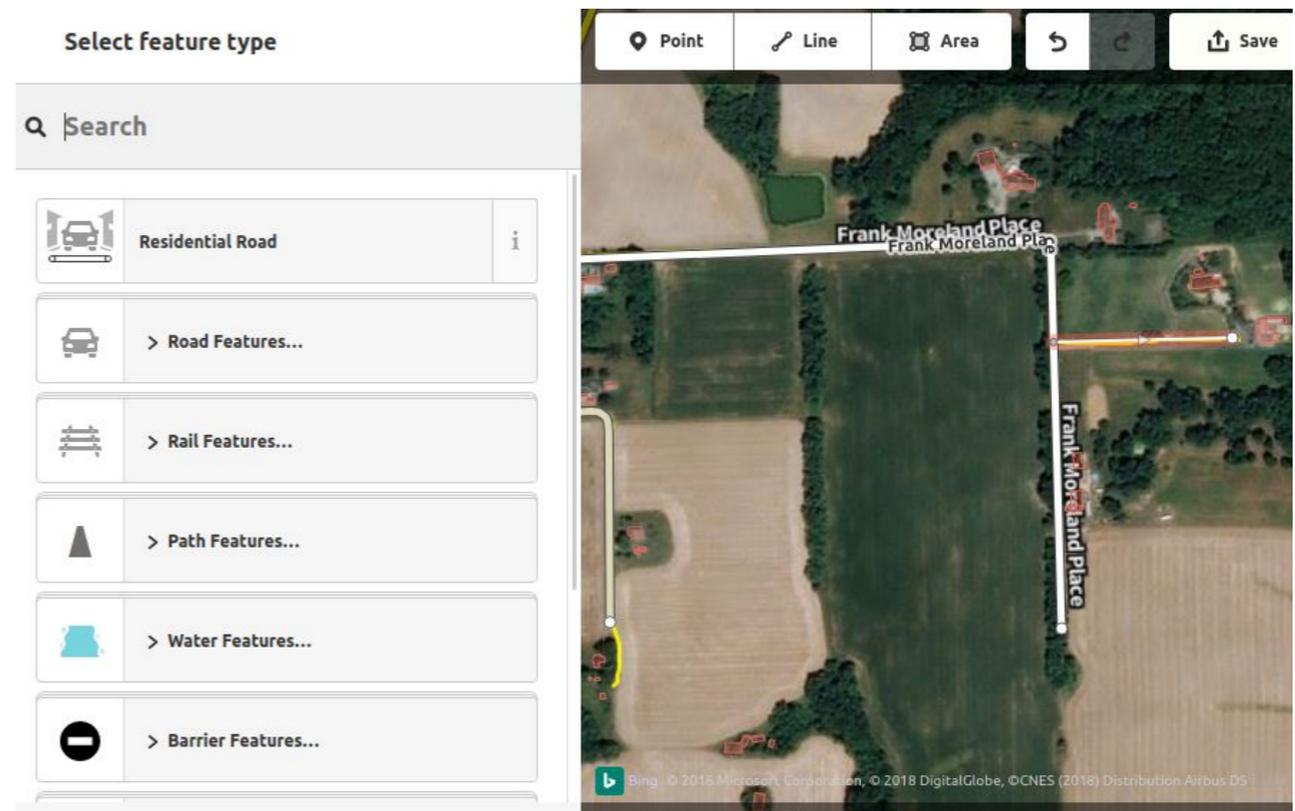
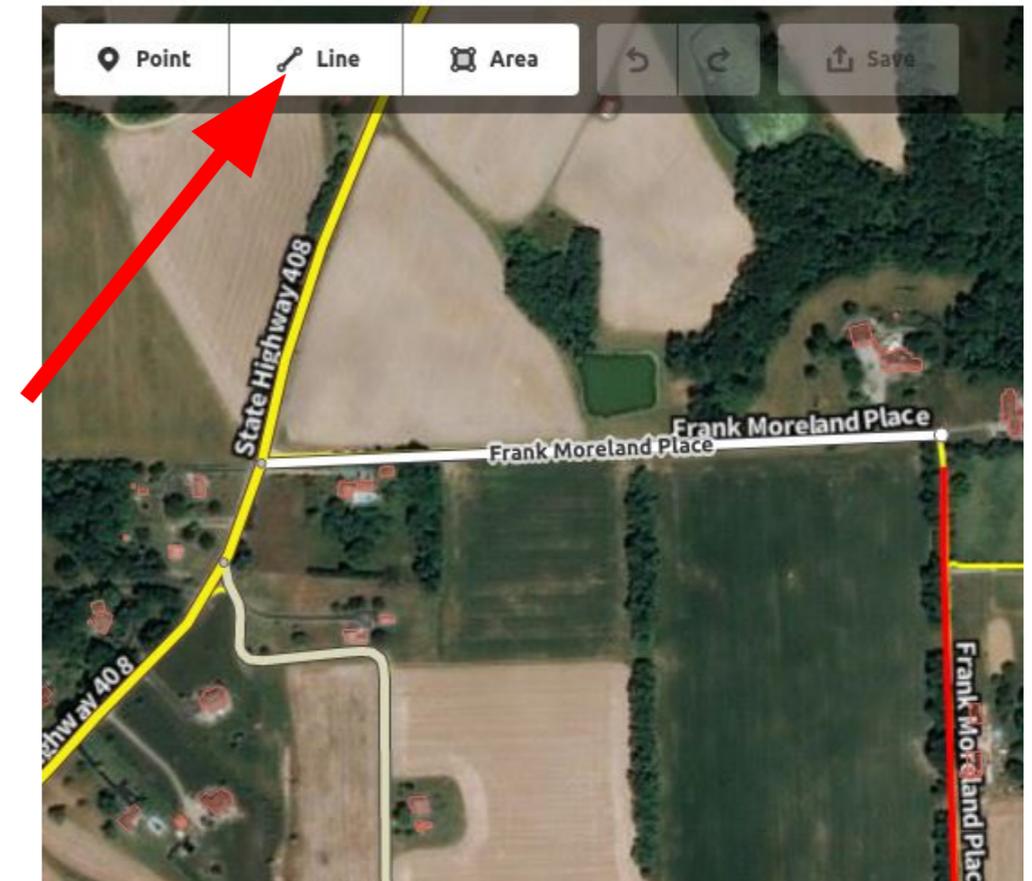
TRACE A ROAD

- Zoom into an area in the United States with red lines, indicating that the Census data has not been added to the OpenStreetMap database.
- If the road continues, select it and right click to continue the line.
- Add any pertinent information.
- Click 'Save' to save your edits.



TRACE A ROAD

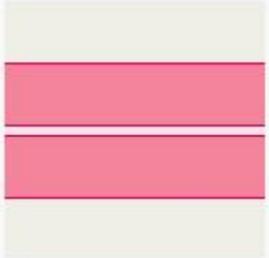
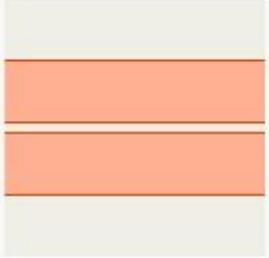
- If it is a new road, click 'Line'
- Click on existing node to connect the road. Draw the road, double click to complete edit.
- Tag the road appropriately. Start typing 'Road' in the search box and choices appear. Make sure to choose the correct value.
- If you do not know the type of road, choose 'Unknown Road'.



TAGGING ROADS IN OSM

The key **highway=*** is the main key used for identifying any kind of road, street or path. The value of the key helps indicate the importance of the highway within the road network as a whole, and supports accurate routing and directions.

For example, a residential road has a different value than a highway.

Key	Value	Element	Comment	Rendering	Photo
Roads					
These are the principal tags for the road network. They range from the most to least important.					
highway	motorway		A restricted access major divided highway, normally with 2 or more running lanes plus emergency hard shoulder. Equivalent to the Freeway, Autobahn, etc..		
highway	trunk		The most important roads in a country's system that aren't motorways. (Need not necessarily be a divided highway.)		

Visit the OSM Wiki page for more information on tagging roads and ways.

<https://wiki.openstreetmap.org/wiki/Highways>

NEXT IN THE SERIES - OSM MODULE 3

OPENSTREETMAP TASKING MANAGER

