OpenSidewalks
Rules For Mapping
Pedestrian Pathway Features

Contents

OpenSidewalks Rules For Mapping

This guide has been developed to help ensure that all mappers contributing to the OpenSidewalks initiative follow a consistent set of practices when documenting pedestrian pathway features in OpenStreetMap.

Please review these guidelines before adding and saving your mapping contributions in the OpenStreetMap iD Editor mapping tool.

Be sure to add the *#opensidewalks* hashtag in the iD Editor changeset comments before you Upload your changes to the global OpenStreetMap database.

The information contained in this guide is derived from the OpenSidewalks How To Map Pedestrian Pathways Canvas learning module.

Crossings

Rules For Mapping Crossings

Crossings describe the path a pedestrian can take to cross a street. These are essential for connecting the pedestrian network across streets and to the streets themselves as well.

Crossings are lines (ways in OpenStreetMap).

Crossings are drawn only on the surface of streets: they should not be drawn on top of sidewalks.

Crossings should always start and end with curb nodes.

Crossings are always tagged with *highway=footway* and *footway=crossing*. These tags will be added automatically when you use the iD Editor presets described below.

Crossings can be of two types: marked or unmarked. To map these:

- Marked (add tag *crossing:markings=yes*). A "marked" crossing is one with lines on the ground showing where a pedestrian can cross and is (likely) protected to cross. The iD Editor preset in English is "Marked Crosswalk".
- Unmarked (add tag *crossing:markings=no*). An "unmarked" crossing is one where a crossing is implied but lacks ground markings, which is usually at most intersections. The iD Editor preset in English is "Unmarked Crossing".

Crossings are always connected to the street(s) they cross. This guarantees connectivity with the larger road network, preventing us from accidentally breaking routing software.

Crossings may be enriched with some optional tags. Please consider waiting on adding this information in Phase 1, as we just want the core network established. Those optional tags are not limited to:

- surface=* (surface composition--concrete, asphalt, cobblestones, gravel, etc.)
- tactile_paving=yes/no (whether the crossing itself has tactile surfaces to aid the blind and others)

Mapping Steps: Crossings

To map crossing ways you will select the iD Editor Line marking tool at the top of your mapping dashboard.

Then, **(1) start by clicking once on the edge of the crossing**; **(2) click again where your line meets the roadway or pathway midpoint** (this step is pivotal, because it associates the new crossing data to the main road or path data set that is already on the map); and, **(3) double click at the terminal end of your crossing**, on the opposite edge of the street, to complete the rendering of the line.

The feature drawn, a crossing way, now shows a line with three visible nodes (points): the start, the mid, and the end nodes (points). You will now proceed to update the tags associated with the crossing line, and the tags that correspond to each of its nodes.

But, first, let's quickly go over Marked vs. Unmarked crossing types in OpenStreetMap.

Marked vs Unmarked Crossings

There are two types of crossings: Marked and Unmarked. The tags associated with each type of crossing are listed in the Basic Crossing Tags table below. The next section will explain how to apply the basic feature tags in the iD Editor.

Tagging The Crossing Line

Once you select the mapped Line the iD Editor Feature panel will appear to the left of the dashboard to allow you to modify the classification of the object. When you click on the Feature Type, it will allow you to search for pre-defined features such as "Marked" or "Unmarked", which already contain the basic required tags for that type of feature.

By selecting a Marked Crosswalk or an Unmarked Crossing preset feature your line will now have the basic tags *highway=footway* and *footway=crossing*, along with the marking information.

Tagging The Crossing Node

You created three points along the crossing line when you mapped it: two curb endpoints, and one point in the middle that connects the crossing to the road, which you will now label.

Begin by selecting the middle point, and you should see the "Select Feature Type" panel appear on the left. Search and choose the same label you used to tag the crossing line in the previous step, either "Marked Crosswalk" or "Unmarked Crossing", to apply the basic feature tags to the intersecting crossing point.

The middle point of the crossing way should now have the basic tags for a crosswalk point: *highway=crossing*, along with the marking information. The point will also turn into a small dot icon with an outline of a walking person within.

The other points at each end of the crossing line, at the edge of the street, are considered Curbs, which we will tag in the next section.

Basic Crossing Tags

This table summarizes the basic OpenStreetMap tags to classify Crossing features. Here is an OpenStreetMap wiki on Crossings: https://wiki.openstreetmap.org/wiki/Key:crossing.

Feature Type	Tags
Marked Crosswalk	highway=footway footway=crossing crossing:markings=yes
Unmarked Crossing	highway=footway footway=crossing crossing:markings=no
Crossing NODE (Middle Point **connecting** the footway and the road)	highway=crossing* *This is the middle point in the crossing!* *Also,* highway=crossing crossing:markings=yes/no

Tagging The Crossing Curbs: Raised vs Lowered

Your crossing lines end in two points at the edges of the street, the Curb nodes. Mapping these curb features and tagging them according to their degree of accessibility is critical data to downstream routing applications.

The basic tag to document a Curb point is *barrier=kerb* (the English term adopted in OpenStreetMap).

OpenSidewalks is most concerned with the type of curb the point represents. The most likely attributes of a curb type are Raised (curb), Lowered (ramp), Flush (sidewalk at same level as crossing) or Rolled (typical in suburbs). The tag *kerb=raised/lowered/flush/rolled* is added to the curb point to document that information.

The basic curb tags are already preset in the iD Editor Feature list for each of those types. Select the curb node(s) you want to tag--to tag multiple curbs that are of the same type use the Shift key before clicking to select the next point.

The same "Select Feature Type" panel will appear to the left of the dashboard for you to search and choose whether this curb is a "Lowered Curb," "Raised Curb," "Flush Curb" or "Rolled Curb."

Curbs

Rules For Mapping Curbs

Curbs describe the interface between street and pedestrian pathways. These are helpful for informing pedestrians about potential barriers or helpful infrastructure when crossing the street.

Curbs are points (nodes in OpenStreetMap).

Curbs should be placed exactly at the place where street meets the edge of the sidewalk.

Curbs should be mapped as one of the following:

- "Raised" (tag *kerb=raised*). The curb interface of a typical square-edge curb where there is a vertical displacement down from the sidewalk to the street. The iD preset in English is, "Raised Curb".
- "Lowered" (tag *kerb=lowered*). The curb interface of a curb ramp where a sloped surface meets the street. The iD preset in English is, "Lowered Curb".
- "Flush" (tag *kerb=flush*): No curb. The interface is flat from sidewalk to street. The iD preset in English is, "Flush Curb".
- "Rolled" (tag *kerb=rolled*): A quarter-circle-shaped curb. This is common in American suburbs. The iD preset in English is, "Rolled Curb".

Curbs may be enriched with some optional tags. Please consider waiting on adding this information in Phase 1, as we just want the core network established. Those optional tags are not limited to:

- surface=* (surface composition--concrete, asphalt, cobblestones, gravel, etc.)
- tactile_paving=yes/no (whether the area around the curb itself has tactile surfaces to aid the blind and others)

Basic Curb Tags

This table summarizes the basic OpenStreetMap tags to classify Curb features. Here is an OpenStreetMap wiki on Crossings: Here is an OpenStreetMap wiki on curbs: https://wiki.openstreetmap.org/wiki/Tag%3Abarrier%3Dkerb.

Feature Type	Tags
Curb	barrier=kerb
Lowered Curb (Ramp)	barrier=kerb kerb=lowered
Raised Curb (Barrier)	barrier=kerb kerb=raised
Flush Curb	barrier=kerb kerb=flush
Rolled Curb	barrier=kerb kerb=rolled
Curb Barrier Height	barrier=kerb* height=3 cm* https://wiki.openstreetmap.org/wiki/Key:height *This is an example out of a range of values, please see the wiki page for correct annotations

Sidewalks

Sidewalks are effectively footways dedicated to pedestrian traffic that run along the edge of the road or street. Sidewalks connect with crossings at transit intersections, and they are connected by way of short footways ("links", see below.) By ensuring that we connect sidewalks to crossings using "links" we ensure that pedestrian pathway data is related to transportation network data to be used by downstream routing applications.

Rules For Mapping Sidewalks

Sidewalks describe paths next to and along streets that are dedicated to pedestrians. They are essential for mapping the pedestrian spaces of many urban environments.

Sidewalks should be mapped as lines (ways in OpenStreetMap).

Sidewalks are drawn down the center of the sidewalk path.

Sidewalks should not be directly connected to crossings or curbs associated with crossings. Instead, a "link" (described in the next section) should connect them.

Sidewalks should be joined to (shared a node with) service roads with which they overlap. In OpenStreetMap, this includes driveways, alleys, and entrances to parking lots.

Sidewalks should be mapped as lines and tagged with *highway=footway* and *footway=sidewalk*. These tags will be automatically set when you select the iD Editor preset "Sidewalk", in English.

Sidewalks may be enriched with some optional tags. Please consider waiting on adding this information on the first pass, as we just want the core network established ASAP. Those tags are--not limited to:

- surface=* (surface composition--concrete, asphalt, cobblestones, gravel, etc.)
- width={number} (width in meters, only if you can quantitatively measure it on-the-ground or with the aid of a computerized measuring stick on aerial imagery).

Mapping Steps: Sidewalks

Sidewalks are documented on a map using the Line marking tool.

To map a sidewalk you simply **(1) draw a line on the map along the path where the center line of sidewalk is located**. Once you have marked the sidewalk line, **(2) select it so that it can be tagged**.

You will later want to document as many conditions about the footpath as possible in the OpenSidewalks project Phases 2 and 3, in agreement with the priorities and guidelines set by your local mapping collaboration team. See the corresponding lessons in this module to learn more.

Tagging The Sidewalk Line

Select the mapped sidewalk line in the iD Editor to tag it, and the Feature panel will appear to the left of the dashboard to allow you to modify the classification of the line. Search for "Sidewalk", and select the preset feature from the results list. The tags *highway=footway* and *footway=sidewalk* are now added to the feature, and the line now appears dashed on the map.

Once you complete these steps you can commit your mapped features to Save to OpenStreetMap, and proceed to mark the project task as completely mapped and click "Submit task" so your work can be logged in the Tasking Manager.

Basic Sidewalk Tags

This table summarizes the basic OpenStreetMap tags to classify Sidewalk features. Here is the OpenStreetMap wiki on Sidewalks: https://wiki.openstreetmap.org/wiki/Sidewalks Links to an external site..

Feature Type	Tags
Sidewalk	highway=footway footway=sidewalk

Links (Footways)

Footways are walking paths, whether part of the built or recreational environment, trails, alleys or gravel paths. This feature should be mapped as a line between GPS located nodes (points). The basic footway tag is *highway=footway*. This classification would apply to pedestrian features that are not considered as sidewalks, and *is more typically used in the OpenSidewalks project to designate connecting "links" between a sidewalk way and a crossing curb* node.

Rules For Mapping Footway Links

Links describe connections between pedestrian spaces and connections between pedestrian and non-pedestrian spaces that are not well-described by any identifiable path. In our case, we use links to connect sidewalk center lines to crossings, as this path is not geometrically delineated in any way, but implied.

Links should connect sidewalk center lines to crossing curb nodes.

Links should have a curb node at one end (shared with the crossing) and a node without curb tags at the other (shared with the sidewalk).

Links should be tagged as plain footways (tag *highway=footway*)--pending the acceptance of the *footway=link* tag by the OpenStreetMap community. *If you would like to support our work in documenting this data (footway=link), please discuss with your local OpenStreetMap mapping community if they would like to pilot this tag.*

Links can be tagged using the iD preset "foot path" in English.

Links may be enriched with some optional tags. Those tags are--not limited to:

surface=* (surface composition--concrete, asphalt, cobblestones, gravel, etc.)

Mapping Steps: Footway Links

Select the Line drawing tool in the iD Editor.

Start the footway line by **(1) clicking on one of the curb points you created at the end of the crossing**. Extend the line by **(2) drawing the path a wheelchair is likely to follow to get from the curb to the center of the nearest sidewalk**. **(3) Double click on that point to end the line**. *It is likely that currently there is not an actual sidewalk center line on the map--in some cities it has not been mapped in OpenStreetMap, and is usually drawn after the crossing ways have been documented.*

Click on the line you created, and the Feature panel will appear on the left side of the iD Editor dashboard, describing the selected line as a "Line" feature. Search for the preset Feature Type "Foot Path" and select it so the line now has the tag *highway=footway*.

Repeat these steps to map more footway links that connect other crossing curb points at an intersection to the location of the adjacent sidewalk center line. *If the sidewalk has not yet been mapped, we encourage you to map footway links from the crossing curb point to the expected sidewalk center line location.*

Basic Footway Tags

This table summarizes the basic OpenStreetMap tags to classify Footway features. Here is the OpenStreetMap wiki on Footways: https://wiki.openstreetmap.org/wiki/Tag:highway%3Dfootway Links to an external site..

Feature Type	Tags
Footway	highway=footway