

## The 5-minute walk

<https://morphocode.com/the-5-minute-walk/#:~:text=Based%20on%20the%20average%20walking,access%20to%20destinations%20within%20neighborhoods.>

### Walkable distances in policy

*“Walkable neighborhoods are typically characterized by having a range of community services within 5-10 minutes (400–800 metres/0.25-0.5 miles) walking distance of residential areas which residents may access on foot.”*

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### Service Areas and Bus Stop Access How To

Created Service Areas for Marta Bus Stops within a half-mile buffer of the Census Block Group Study Area Polygons. Both a 5-minute (1/4 mile) and a 10-minute (1/2 mile) walking distance Bus Stop Service Areas were created. (Pelle\_Thesis\_Data\_20231031.gdb)

Exported 5-minute features to new dataset: ServiceArea\_Polygons\_5mins

Dissolved 5 and 10 minute features to new dataset: ServiceArea\_Polygons\_510mins

Intersected the following two datasets:

ServiceArea\_Polygons\_5mins

USA\_Census\_BlockGroups\_EsriDm\_ZonesAll

New dataset: CensusIntServiceArea\_Polygons\_5mins

Intersected the following two datasets:

ServiceArea\_Polygons\_510mins

USA\_Census\_BlockGroups\_EsriDm\_ZonesAll

New dataset: CensusIntServiceArea\_Polygons\_510mins

Added FIPS\_FAC\_ID to both of the new Intersected datasets, calculated to: !FIPS! + “ – “ + !FacilityID!

Dissolved both Intersected datasets based on FIPS\_FAC\_ID, returning both First\_FIPS and First\_FacilityID

New datasets:

- CensusIntDisServiceArea\_Polygons\_5mins
- CensusIntDisServiceArea\_Polygons\_510mins

Created Summary Tables for both new dissolved datasets based on First\_FIPS

New Tables:

- CensusIntDisServiceArea\_Polygons\_5mins\_Statistics
- CensusIntDisServiceArea\_Polygons\_510mins\_Statistics

New fields were added to:

USA\_Census\_BlockGroups\_EsriDm\_ZonesAll

Fields:

- BUS\_STOP\_5MIN (Long)
  - Results contain the total count of bus stops within a 5-minute walk of the Block Group
- BUS\_STOP\_5M\_AC (Double)
- BUS\_STOP\_510MIN (Long)
  - Results contain the total count of bus stops within a 10-minute walk of the Block Group
- BUS\_STOP\_510M\_AC (Double)
- ACRES (Double)

Summary tables (CensusIntDisServiceArea\_Polygons\_5mins\_Statistics) were each joined back to USA\_Census\_BlockGroups\_EsriDm\_ZonesAll

Based on First\_FIPS to FIPS

Calculated BUS\_STOP\_5MIN (Long) with FREQUENCY field number

Unjoined tables and rejoined to other summary table  
(CensusIntDisServiceArea\_Polygons\_510mins\_Statistics)

Based on First\_FIPS to FIPS

Calculated BUS\_STOP\_510MIN (Long) with FREQUENCY field number

### **Crash Counts How To**

Buffer USA\_Census\_BlockGroups\_EsriDm\_ZonesAll by 250ft

Run Summarize within too and get counts of number of accidents per block group, join results back to main dataset and populate the following fields:

- TOT\_CRASH\_250FT (Long)
  - Results contain the total count of crashes within 250ft of the Block Group
- TOT\_CRASH\_250FT\_AC (Double)