

Physical Disorder and Pedestrian Safety

Virtual Field Manual

Fall 2019

Preface

This document is intended as a comprehensive guide to the Physical Disorder and Pedestrian Safety virtual audit instrument to assist in training new raters, serve as a reference to maintain consistency between raters, and to act as a data dictionary.

Illustrations for the manual are taken from Google Street View locations that demonstrate response categories for the items. This is intended to help orient new raters to the level of attention necessary to complete virtual audits using Google Street View imagery.

This version of the field manual is intended for use in audits conducted in the fall of 2019. Special thanks to Kathleen Escoto, Steeve Ndjila Ndohnwou, Steve Mooney, and Alex Quistberg for their role in selecting items and designing this manual.

For any questions, please contact Dustin Fry at dtf34@drexel.edu or Gina Lovasi at gsl45@drexel.edu.

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General Instructions

The CANVAS Platform

All street ratings for this project will be completed using the Computer Assisted Neighborhood Visual Assessment System (CANVAS), an online application that facilitates virtual audits using Google Street View.¹ Follow these instructions to begin rating streets in CANVAS.

1. In your browser, navigate to <http://www.canvasplatform.org>
2. Type your username and password into the login window and click “login.”
3. In the bulleted list, click “Rate Streets.”
4. Find the row with your study name, and in the “Actions” column, select “Start Rating.”
5. A new browser window will appear with Google Street View imagery and navigation buttons. In another window, a group of questions will appear with respect to that imagery. If either of these windows is not visible, you may need to enable pop-up windows in your browser settings.
6. Using the Street View navigation controls, proceed down the segment from the green marker to the red marker to fill out the questions.
7. You will need to fully complete each group of questions to move on to the next group. When all groups of questions have been completed, the next segment will appear.

¹ Bader, M. D., Mooney, S. J., Lee, Y. J., Sheehan, D., Neckerman, K. M., Rundle, A. G., & Teitler, J. O. (2015). Development and deployment of the Computer Assisted Neighborhood Visual Assessment System (CANVAS) to measure health-related neighborhood conditions. *Health & place*, 31, 163-172.

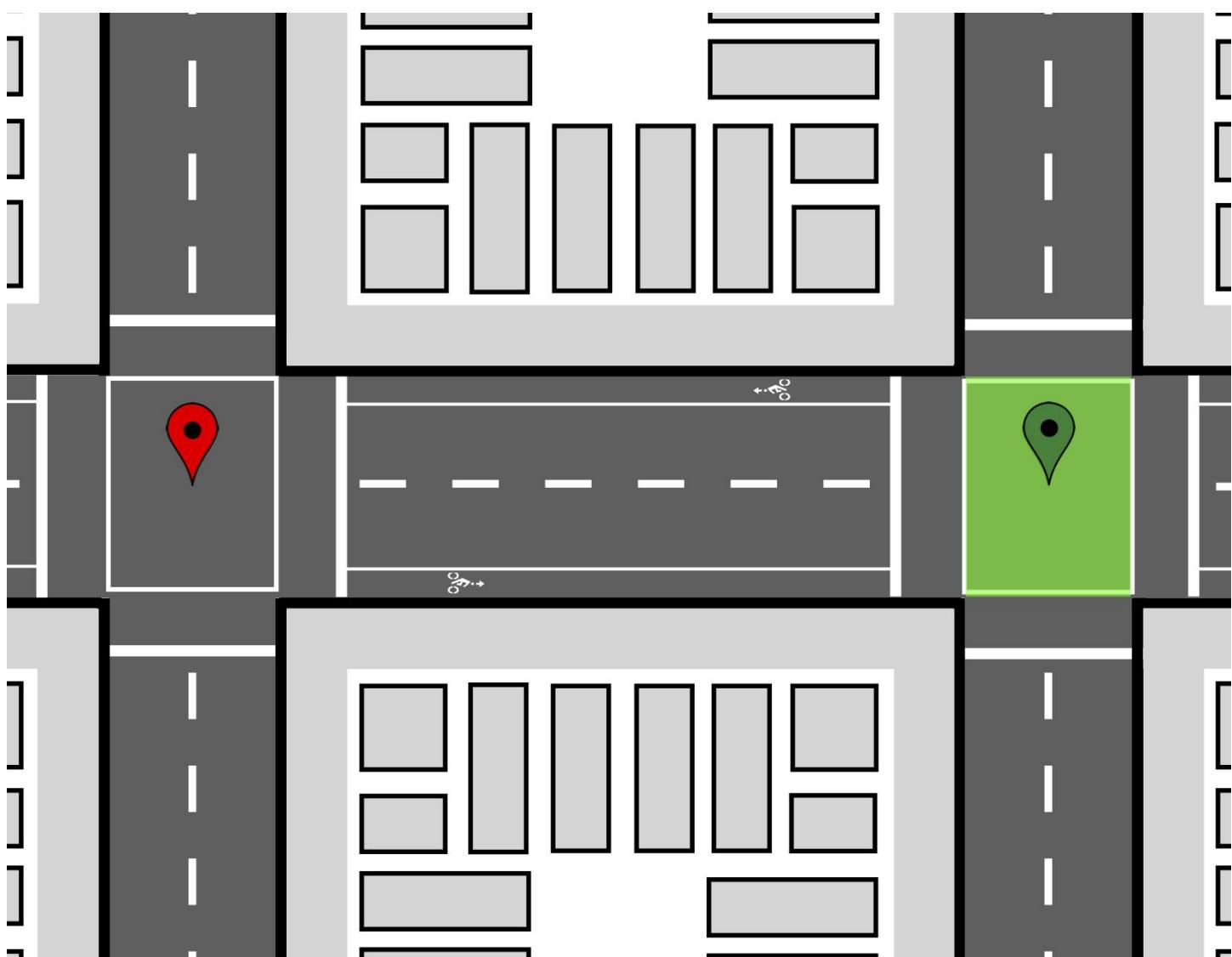
Rating Streets

Items in this virtual audit instrument refer to characteristics of the street segment and the buildings and features that surround it. Note that not all buildings and not all areas of street that are visible from the imagery will be assessed. Refer to following diagrams to understand what should be assessed in each segment and what should be ignored.

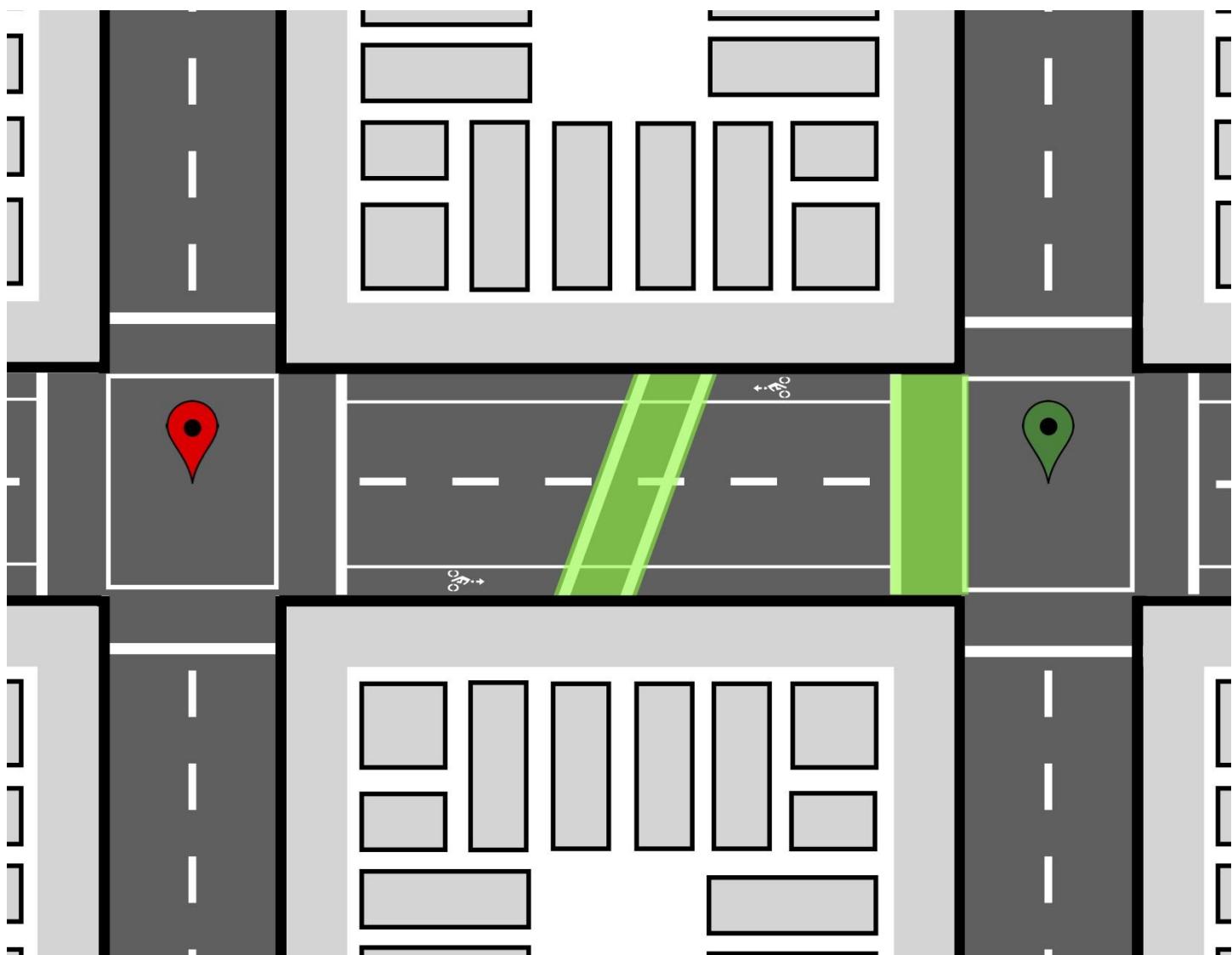
1. Only the lengths of street or sidewalk that run between the red and green marker should be assessed.



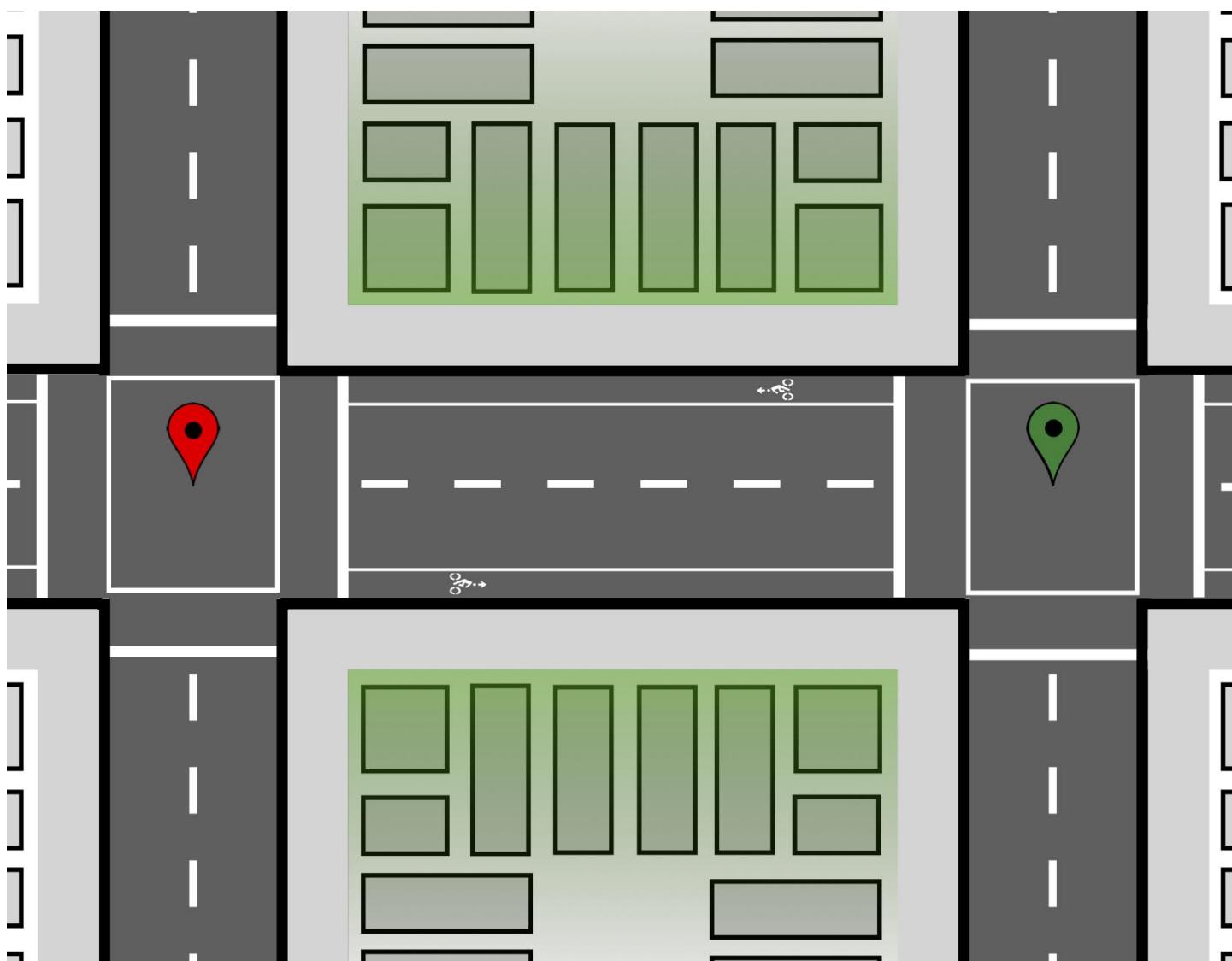
2. Only the intersection closest to the green marker should be assessed.



- 3. Only crosswalks that cross the segment at the green marker or at the midblock should be assessed.**

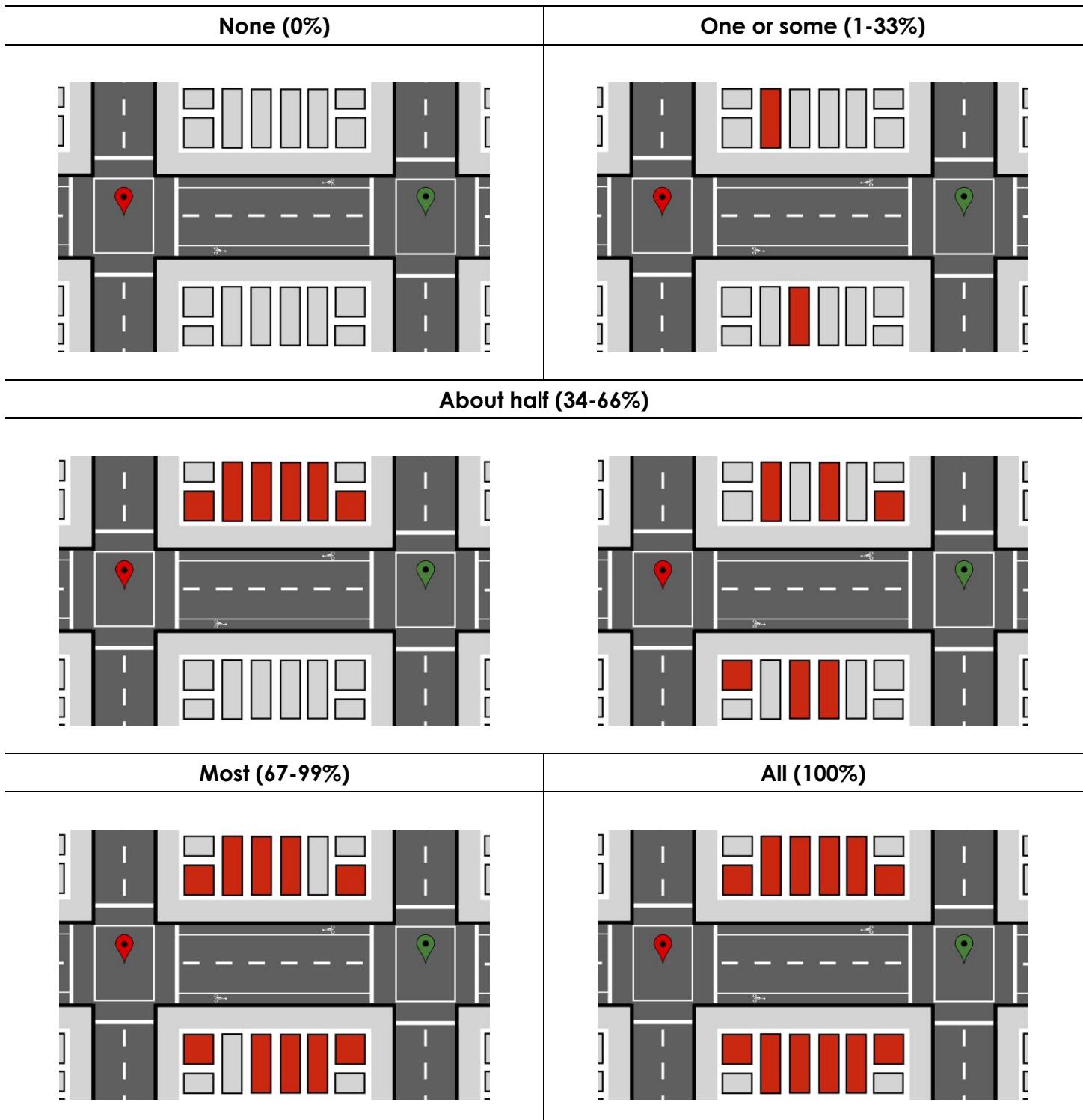


- 4. Assess any buildings or other land-use features (such as parks or vacant lots) that are linearly between the green- and red-marker intersections and are visible from the street segment. There is no prescribed maximum distance from the segment.**



To complete a rating, begin at the green marker, face toward the red marker, and proceed forward until you reach the red marker. Do not navigate past the red or green markers. You are free to change the viewing angle. You may travel back and forth through the segment as many times as is necessary to accurately evaluate all items. If you have any difficulty with the navigation or with deciding how to respond to an item, take note of the coordinates, take a screenshot of the problem if applicable, and send this information to the study coordinator.

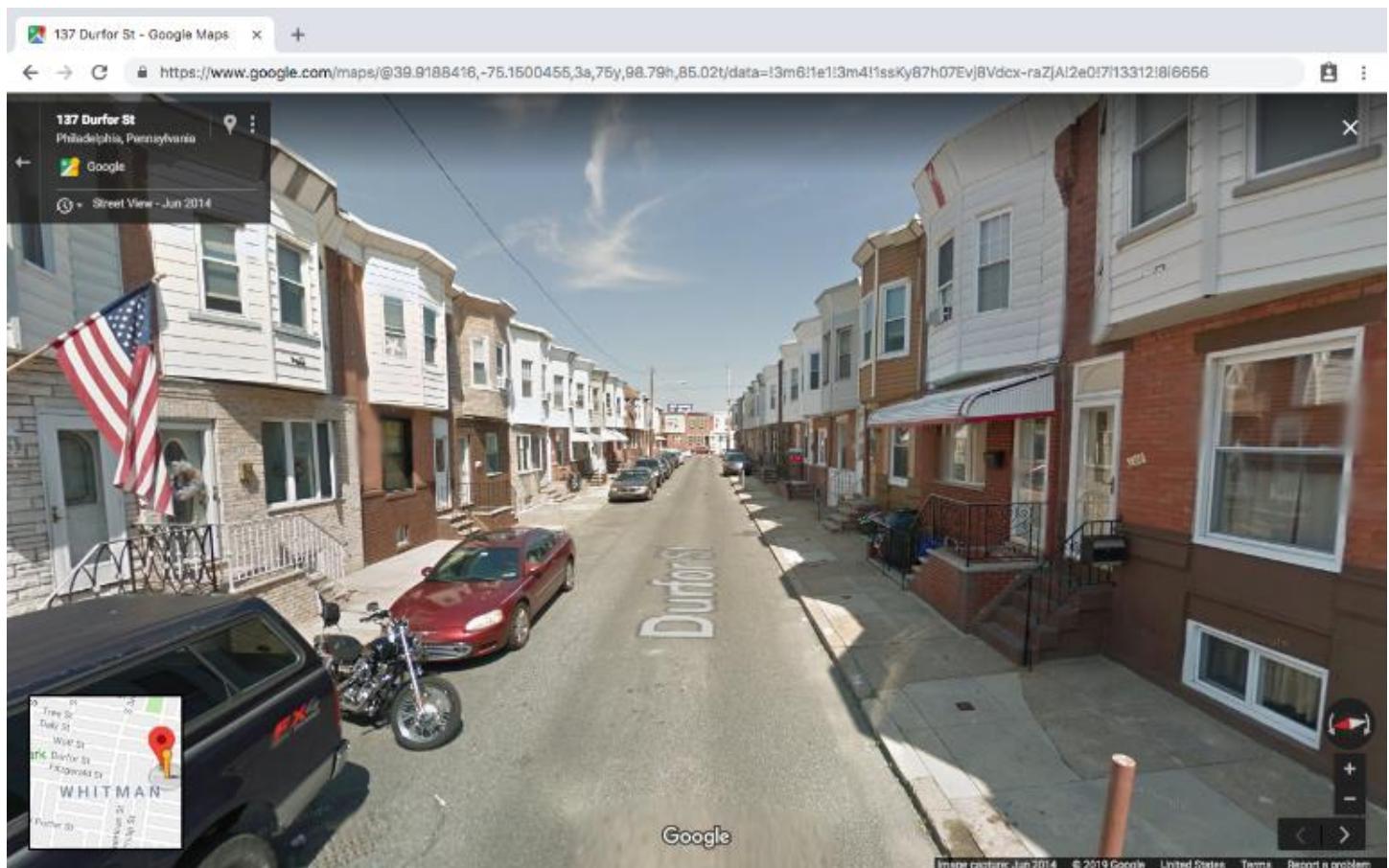
Many items ask for an estimated proportion of features that meet certain criteria, such as what proportion of buildings in the segment have visible signs of beautification or embellishment. The following diagrams provide a visual guide of how these categorized proportions “look” on the street:



Item Instructions and Definitions

Building Conditions

The first set of items assesses the presence and quality of buildings on the segment. High rates of vacancy and poor building maintenance may be indicators of physical disorder.² Items assessing the type of buildings help to contextualize the street segment in the urban landscape, whether it is primarily residential or commercial or a mix of the two. Finally, items assessing visibility and setback help us understand building design and whether it facilitates or inhibits neighborhood setback that may promote social connectivity and informal policing that may reduce the risk of disorder.³



² Ross, C. E., & Mirowsky, J. (1999). Disorder and decay: The concept and measurement of perceived neighborhood disorder. *Urban Affairs Review*, 34(3), 412-432.

³ Foster, S., Giles-Corti, B., & Knuiman, M. (2011). Creating safe walkable streetscapes: Does house design and upkeep discourage incivilities in suburban neighbourhoods?. *Journal of environmental psychology*, 31(1), 79-88.

Item 1 | bldg_pres**Question**

Are there any buildings in the segment?

Response choices

0. No
1. Yes

Skip if

[not skippable]

Instructions: Indicate whether there is at least one building on either side of the segment.

No	Yes
	
	

Item 2 | bldg_res**Question**

Does the segment include residential buildings?

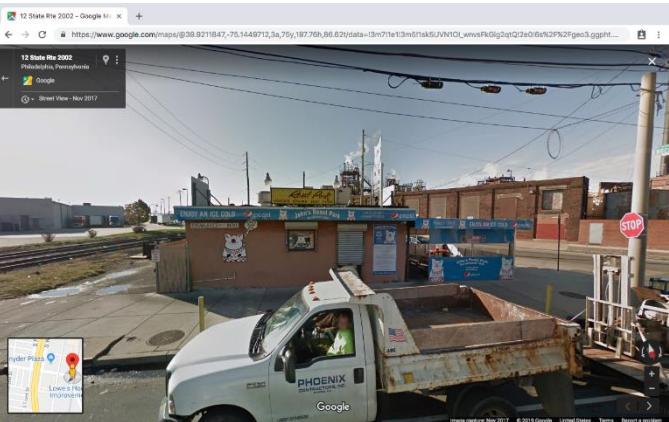
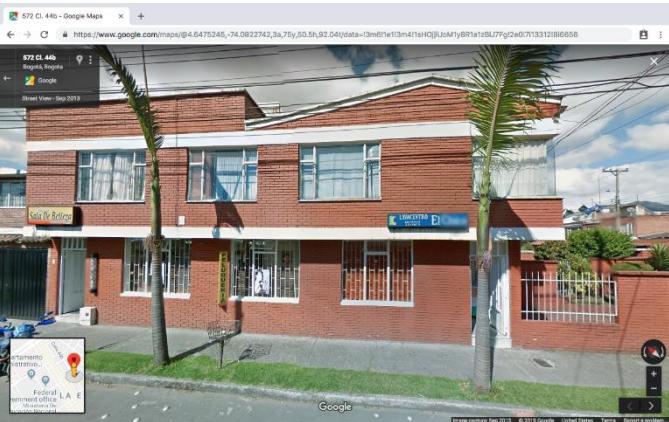
Response choices

0. No
1. Yes

Skip if

bldg_pres = 0

Instructions: Indicate whether there is at least one residential building on either side of the segment. Residential buildings may include mixed-use buildings with both commercial and residential space; a single building may count as both residential and commercial.

No	Yes
	
	

Item 3 | bldg_com**Question**

Does the segment include commercial buildings?

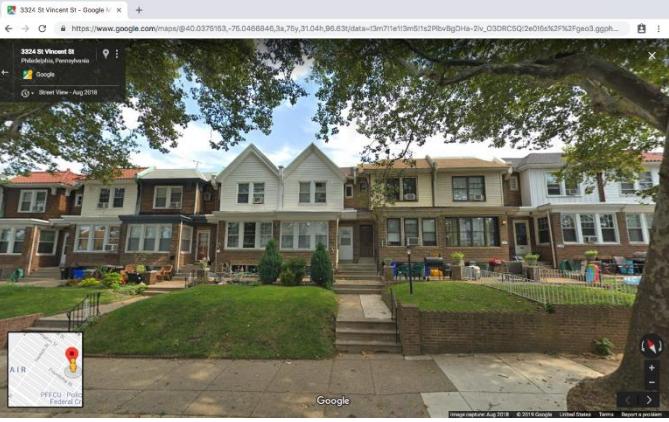
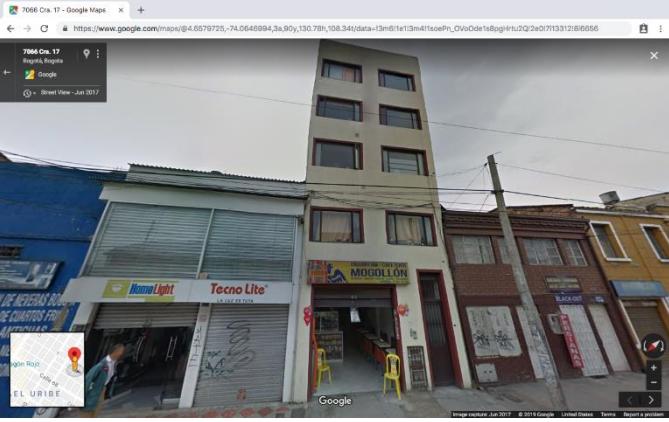
Response choices

0. No
1. Yes

Skip if

bldg_pres = 0

Instructions: Indicate whether there is at least one commercial building on either side of the segment. Commercial buildings may include mixed-use buildings with both commercial and residential space; a single building may count as both residential and commercial. If it appears that an informal business is being run out of an otherwise residential space, this counts as a commercial building.

No	Yes
	
	

Item 4 | bldg_cond**Question**

How many buildings in the segment are in poor condition?

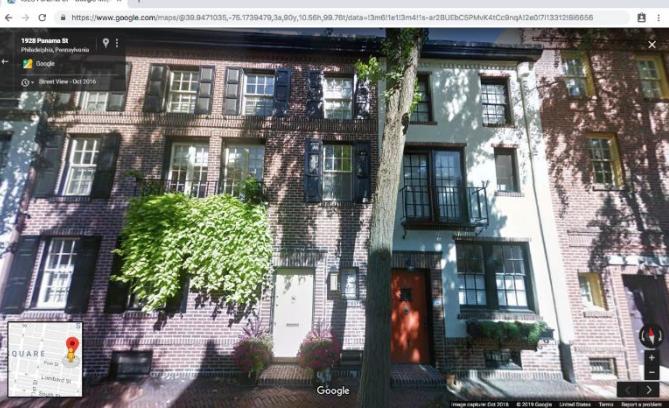
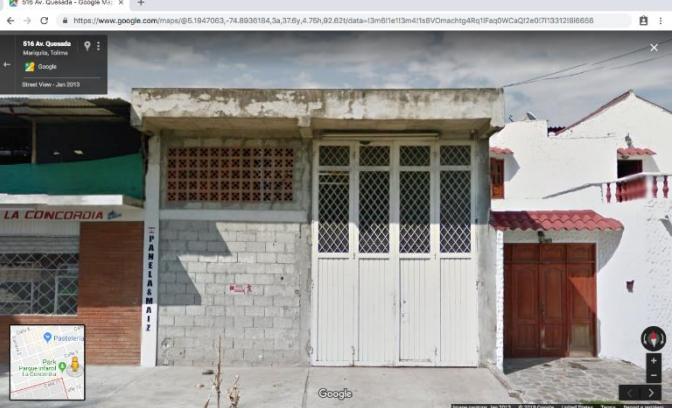
Response choices

0. None (0%)
1. One or some (1-33%)
2. About half (34-66%)
3. Most (67-99%)
4. All (100%)

Skip if

bldg_pres = 0

Instructions: Indicate the proportion of buildings on the segment that appear to be in poor condition. Note the quality of maintenance and any visible signs of disrepair, such as faded or cracking paint, cracked or crumbling walls, poor roof repair, sagging or broken exterior steps or porches, or torn window screens. Note the presence of insufficient repairs such as using plastic sheeting or tarps to patch holes in roofs and walls. Do not use this item to indicate vacant buildings (Item 5 "bldg_vac"), burned-out buildings, graffiti (Item 7 "bldg_graf"), or broken windows (Item 6 "bldg_bwin").

Not in poor condition	In poor condition
	
	

Item 5 | bldg_vac**Question**

How many buildings in the segment appear to be vacant or unused?

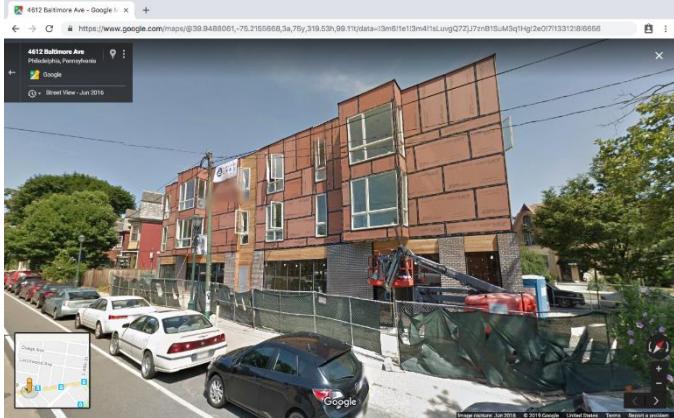
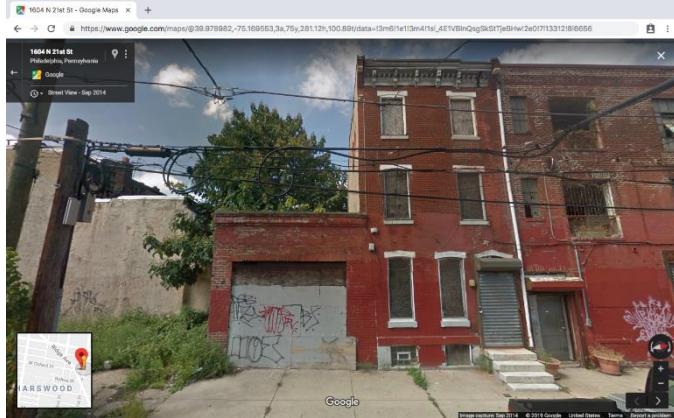
Response choices

0. None (0%)
1. One or some (1-33%)
2. About half (34-66%)
3. Most (67-99%)
4. All (100%)

Skip if

bldg_pres = 0

Instructions: Indicate the proportion of buildings in the segment that appear to be vacant or unused. Buildings that appear to be under active construction are not considered vacant. However, unfinished or partially-demolished buildings that appear to have been abandoned are considered vacant.

Not vacant	Vacant
	
	

Item 6 | bldg_bwin**Question**

How many buildings in the segment have visible broken windows? (of buildings with glass windows)

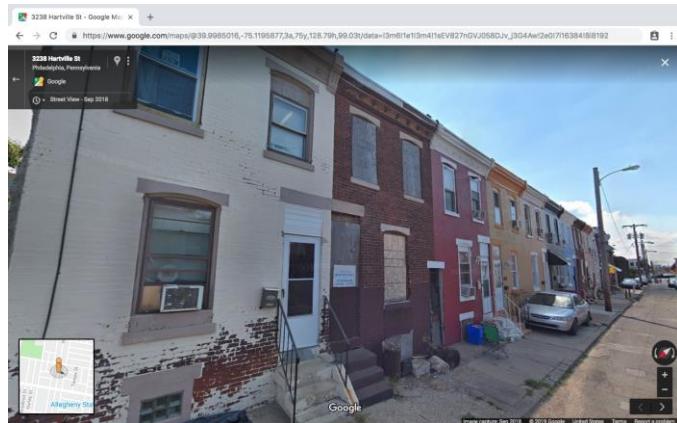
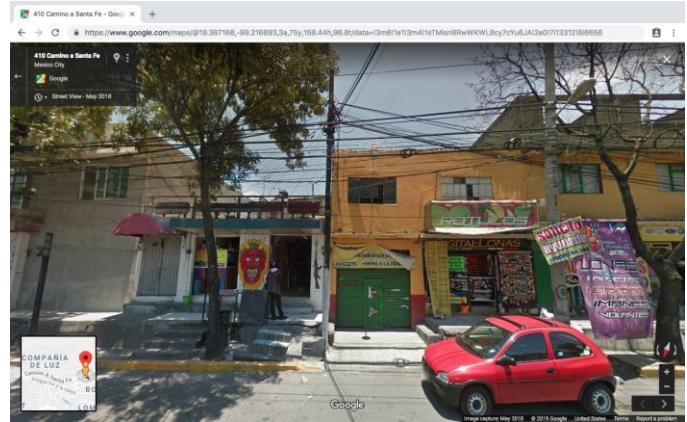
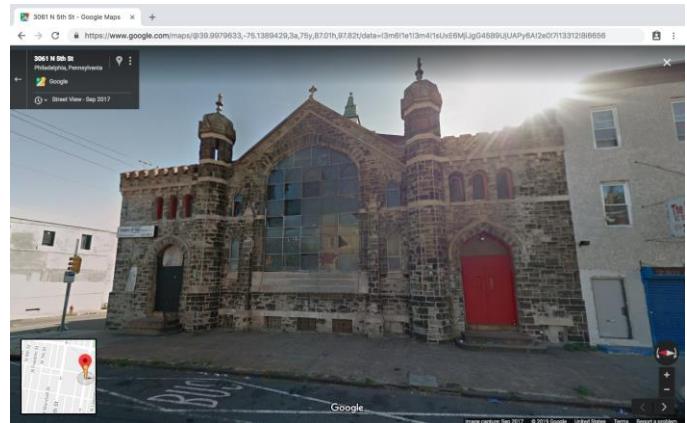
Response choices

0. None (0%)
1. One or some (1-33%)
2. About half (34-66%)
3. Most (67-99%)
4. All (100%)

Skip if

bldg_pres = 0

Instructions: Among buildings in the segment that have glass windows, indicate the proportion where the glass is broken. Boarded-up windows, windows with metal bars, or empty openings in building walls should not be indicated by this item.

No broken windows**Broken windows present**

Item 7 | bldg_graf**Question**

How many buildings in the segment have visible graffiti?

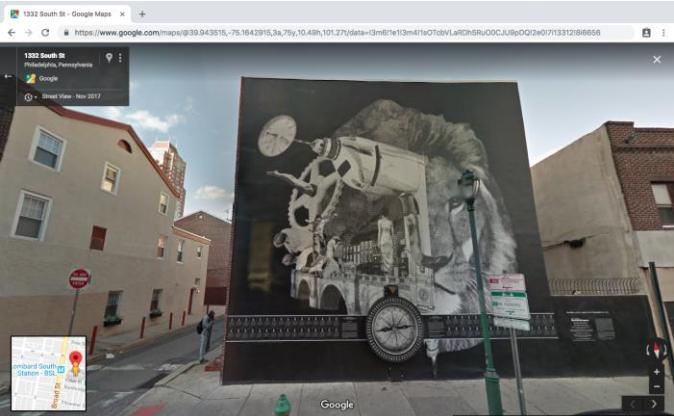
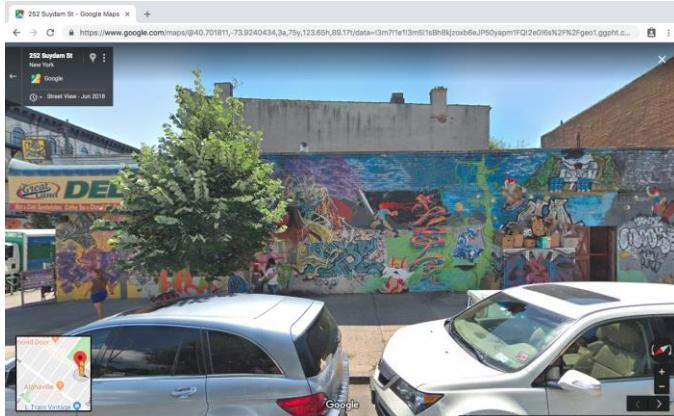
Response choices

0. None (0%)
1. One or some (1-33%)
2. About half (34-66%)
3. Most (67-99%)
4. All (100%)

Skip if

bldg_pres = 0

Instructions: Indicate the proportion of buildings in the segment with visible graffiti. This includes small "tags" as well as political messaging and larger pieces of art. Any unsanctioned or illicit writing or drawing is graffiti, but if you cannot tell if the art is sanctioned or not, err to the side that it is a "mural" (Item 8 "bldg_mur"). Particular evidence that the graffiti is unsanctioned may be provided if the graffiti is over the top of a freshly-painted section of wall, suggesting that the building owner has already covered up graffiti there before.

No graffiti	Graffiti present
	
	

Item 8 | bldg_mur**Question**

How many buildings in the segment have visible murals?

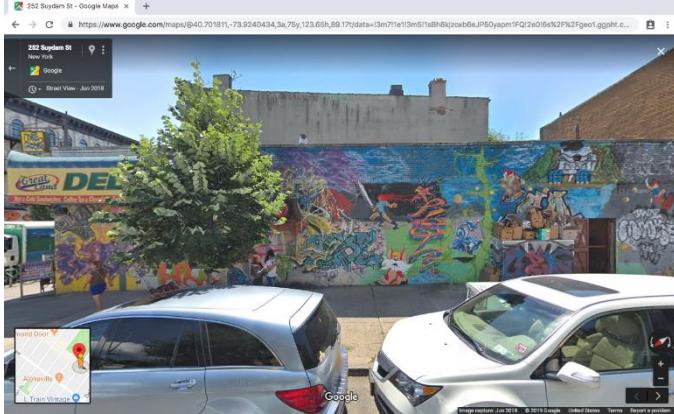
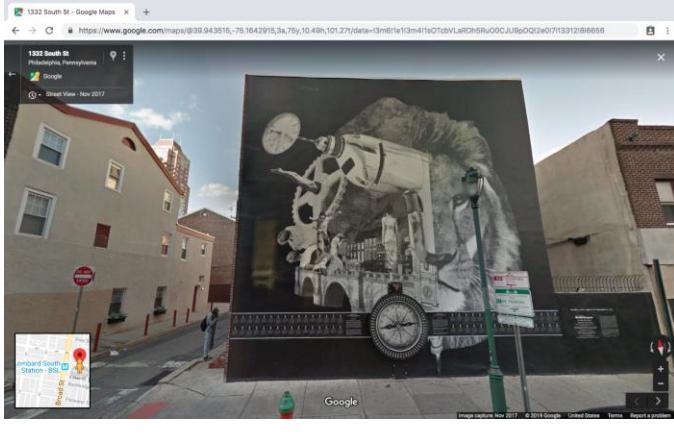
Response choices

0. None (0%)
1. One or some (1-33%)
2. About half (34-66%)
3. Most (67-99%)
4. All (100%)

Skip if

bldg_pres = 0

Instructions: Indicate the proportion of buildings in the segment with visible murals. This includes any kind of apparently-sanctioned art painted on a building or wall regardless of its size, but does not include business information that is painted on an exterior wall. Note that patterned paint or tiling may be an example of "beautification or embellishment" (item 11) if it does not seem to be a mural.

No mural	Murals present
	
	

Item 9 | bldg_elec**Question**

What is the condition of visible electrical wires?

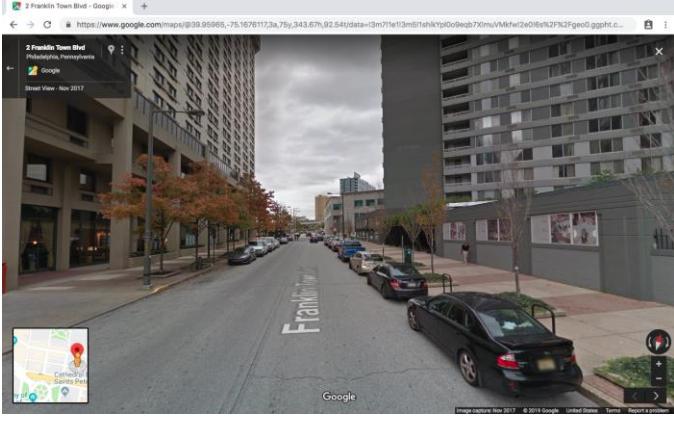
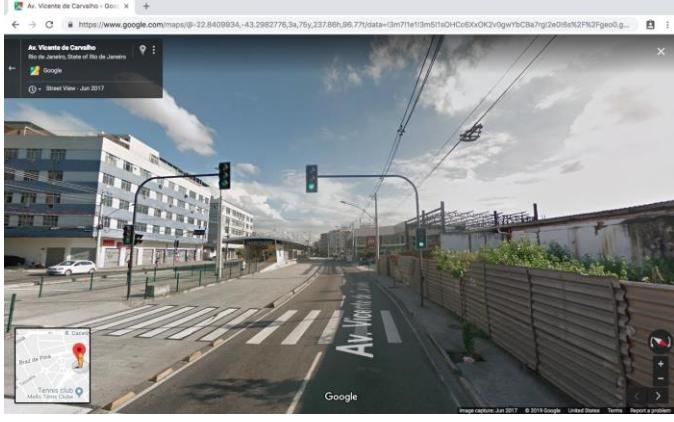
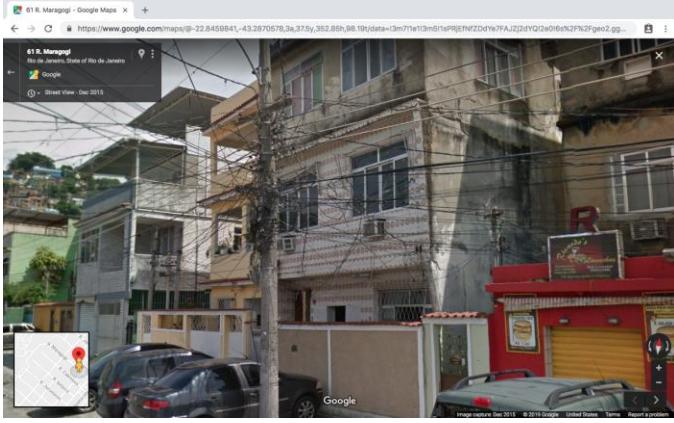
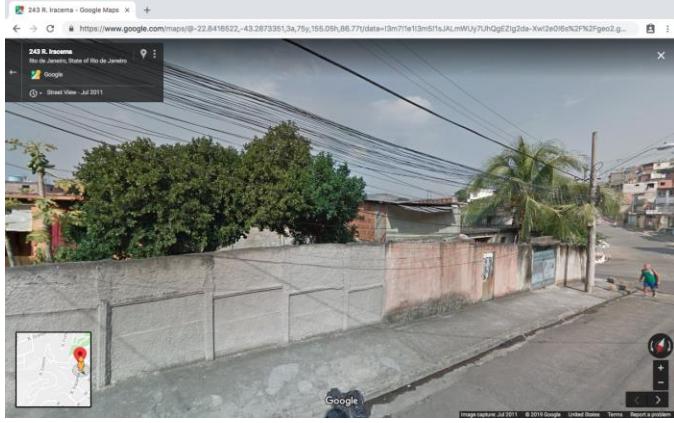
Response choices

0. No visible wires
1. Organized
2. Tangled
3. Low-hanging\
4. Multiple issues

Skip if

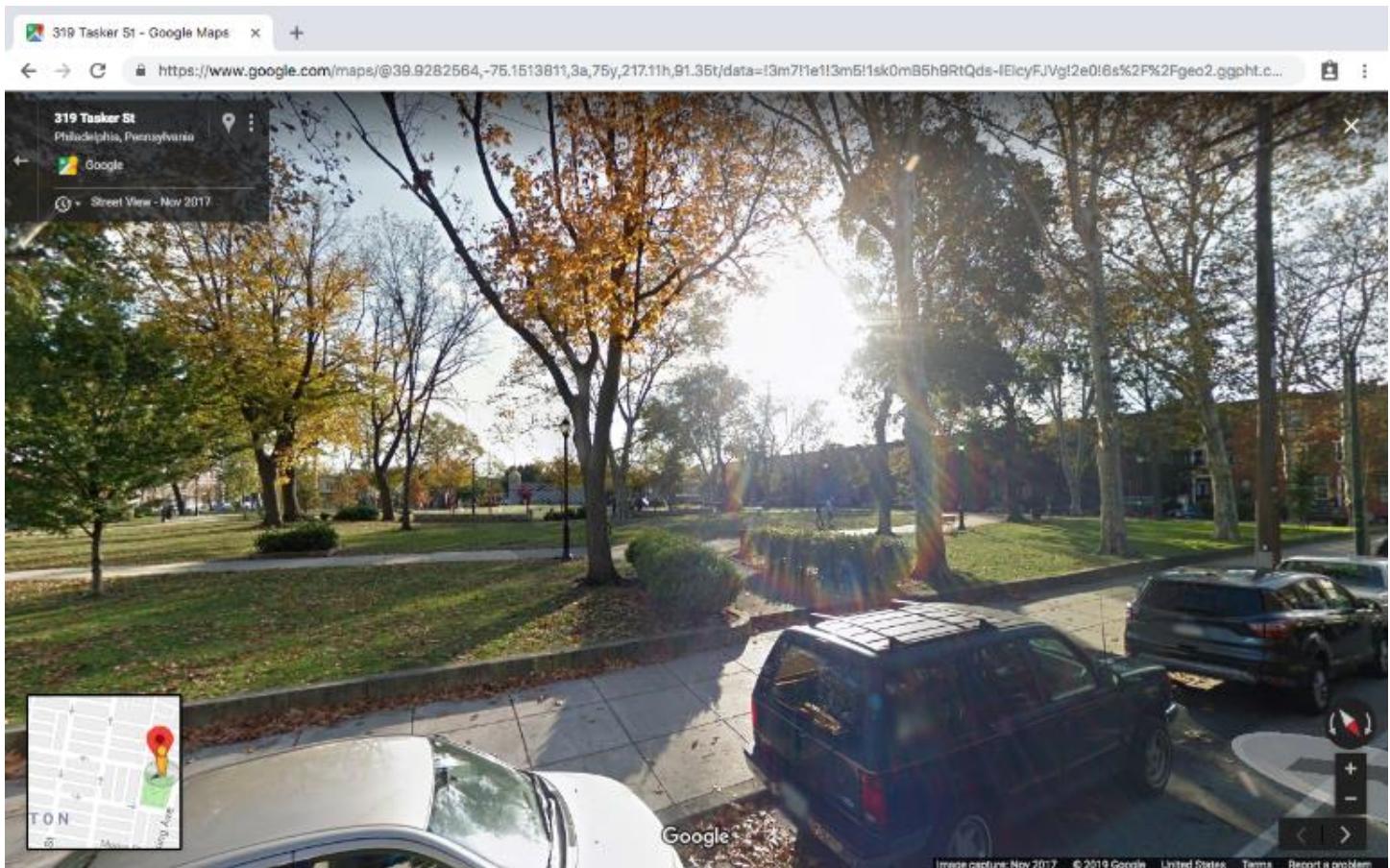
[not skippable]

Instructions: Indicate the condition of any visible electrical wires. As a guideline for low-hanging wires, consider whether any wires extend below the lowest point of first-floor roofs. Do not worry about distinguishing electrical wires from telephone or cable lines; any of these should be indicated by this item.

No visible wires	Organized
	
Tangled	Low-hanging
	

Vegetation and Parks

The first set of items assesses the presence and type of vegetation and parks visible from the street. The presence of greenspace and vegetation is a positive aesthetic attribute of neighborhoods that has been used as an indicator of order in neighborhoods.⁴



⁴ Foster, S., & Giles-Corti, B. (2008). The built environment, neighborhood crime and constrained physical activity: an exploration of inconsistent findings. *Preventive medicine*, 47(3), 241-251.

Item 10 | veg_tree**Question**

How many trees are in the segment?

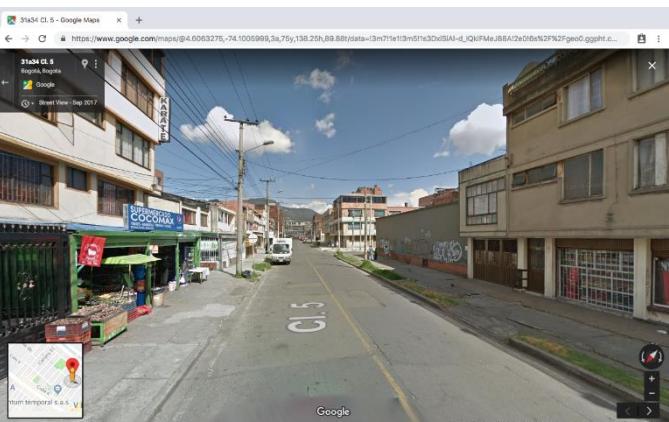
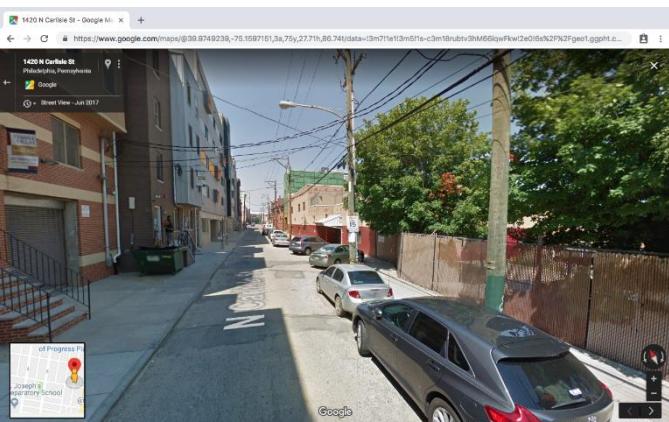
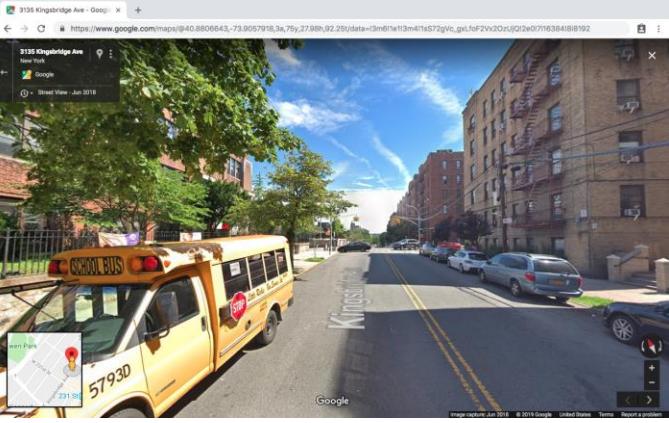
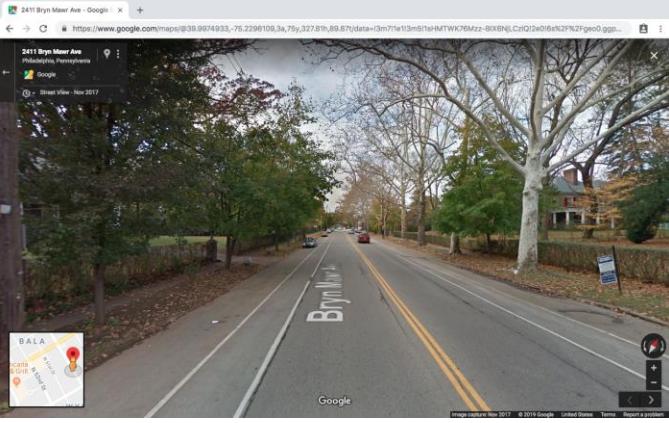
Response choices

0. None
1. One or few
2. Some
3. Many
4. The segment is completely surrounded by forest.

Skip if

veg_pres = 0

Instructions: Indicate the approximate number of trees visible from the segment. Trees of any size, including saplings, should be indicated by this item. Include street trees, trees within parks or greenspace, and trees that are on private property or inaccessible in some other way as long as they are visible from the StreetView imagery.

None	One or few
	
Some	Many
	

(continued on next page)

Item 10 | veg_tree

Completely surrounded by forest



Item 11 | veg_gard**Question**

How many gardens / potted plants are in the segment?

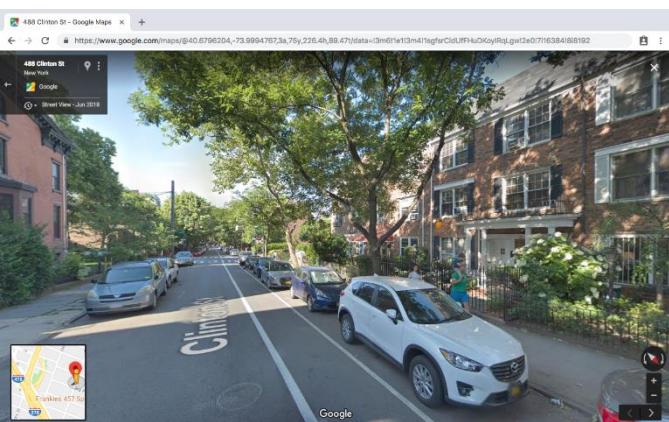
Response choices

0. None
1. One or few
2. Some
3. Many
4. The segment is completely landscaped.

Skip if

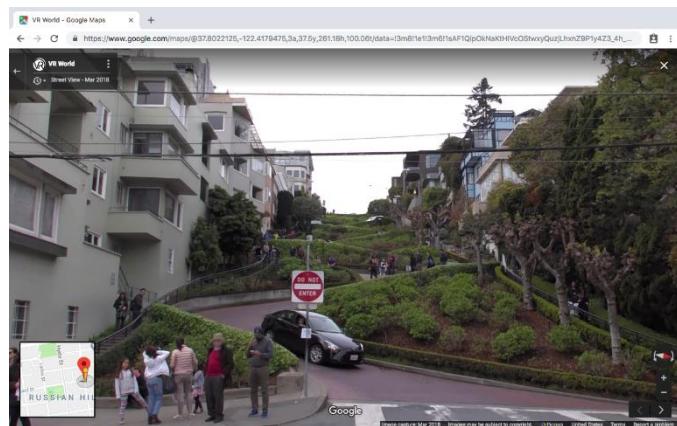
veg_pres = 0

Instructions: Indicate the approximate number of gardens or potted plants visible from the segment. Include both private and public gardens, sidewalk planters, and hanging baskets. The gardens or potted plants do not have to be accessible as long as they are visible in the StreetView imagery.

None	One or few
	
Some	Many
	

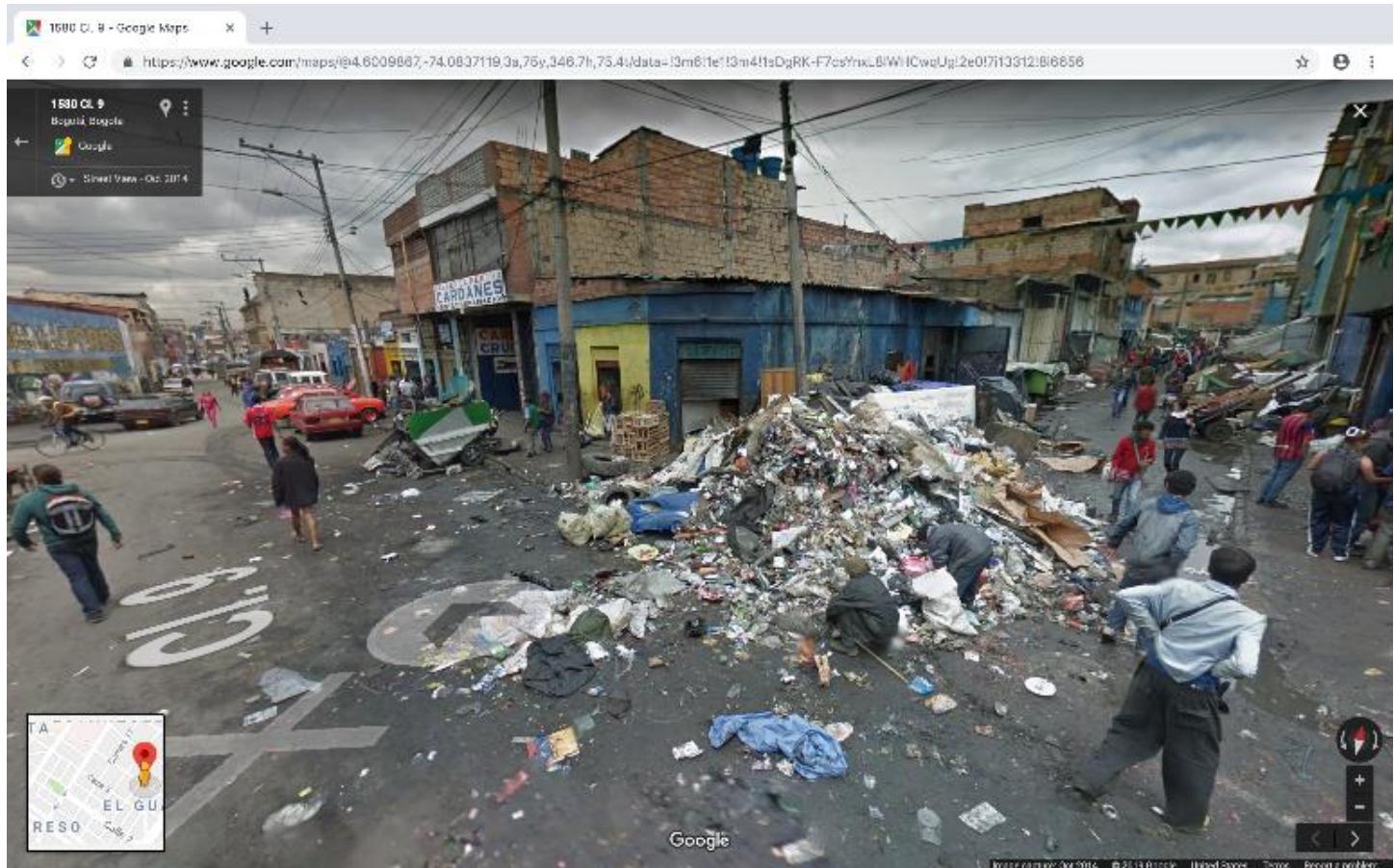
(continued on next page)

Completely landscaped



Litter

The third set of items assesses the presence and nature of visible litter in the segment. Litter and trash is a common indicator of physical disorder.⁵ Items assess the presence of waste containers, which may help to reduce litter, and examine how the litter is distributed in the segment.



⁵ Ross, C. E., & Mirowsky, J. (1999). Disorder and decay: The concept and measurement of perceived neighborhood disorder. *Urban Affairs Review*, 34(3), 412-432.

Item 12 | litter_cont**Question**

Are designated waste containers visible on the segment?

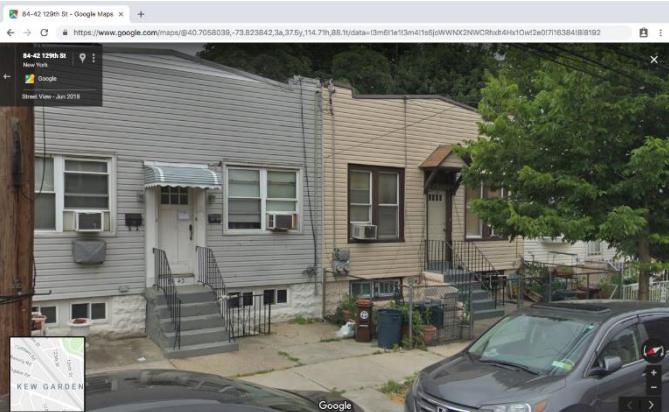
Response choices

0. No
1. Yes

Skip if

[not skippable]

Instructions: Indicate the presence of trash cans, litter bins, recycling bins, or other designated waste containers on the segment. Include both public and evidently-private trash cans.

No	Yes
	
	

Item 13 | litter_pres**Question**

How much visible litter is there in the segment (garbage outside of designated waste container)?

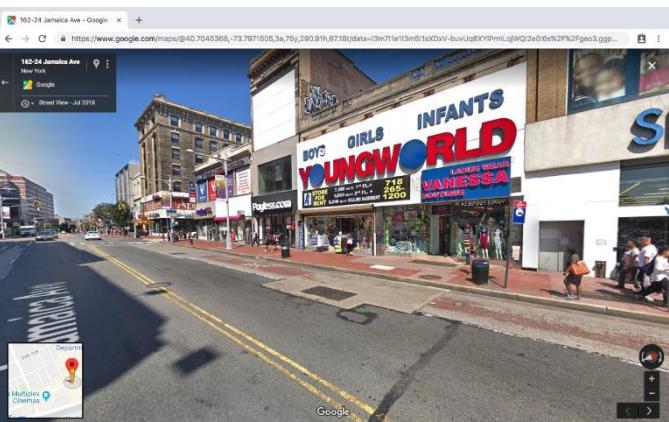
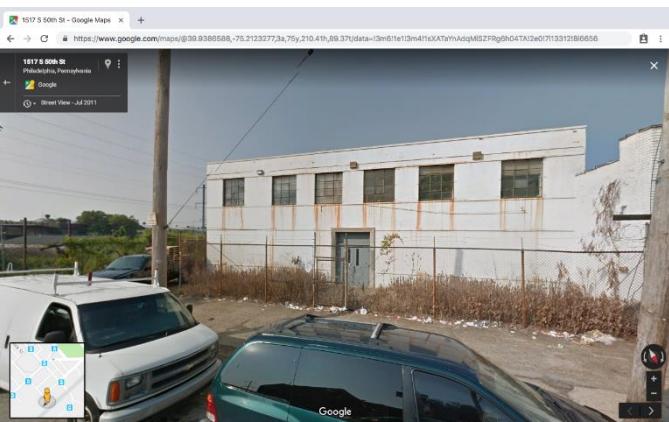
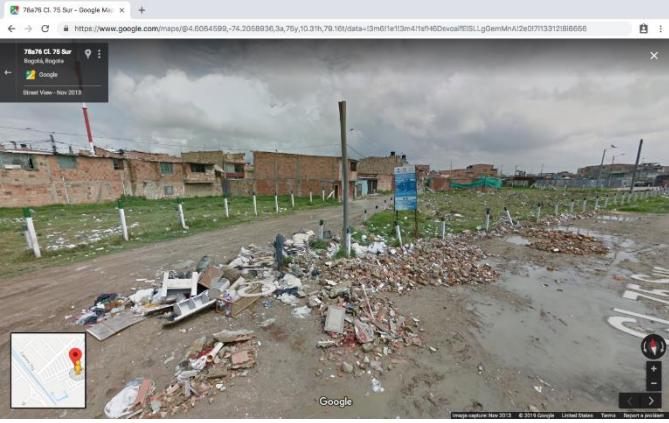
Response choices

0. None
1. A little
2. Some
3. A lot
4. There is so much litter as to significantly obstruct pedestrian or vehicular movement.

Skip if

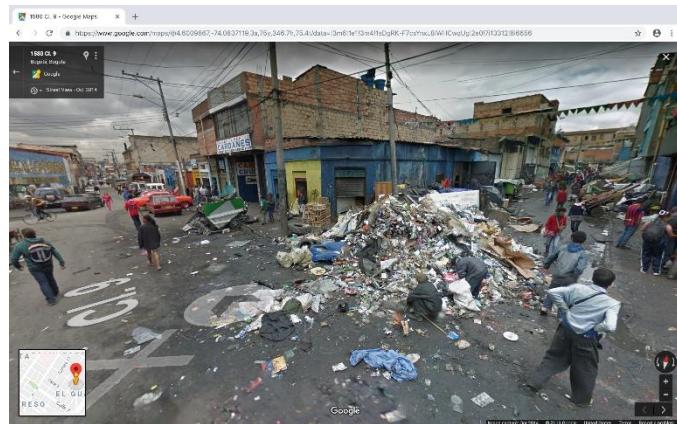
[not skippable]

Instructions: Estimate the quantity of litter visible in the segment. Include both litter that is on or beside the street or sidewalk as well as litter that is visible on building lots within the segment. Large items, such as evidently-abandoned cars, should be counted as litter.

None	A little
	
Some	A lot
	

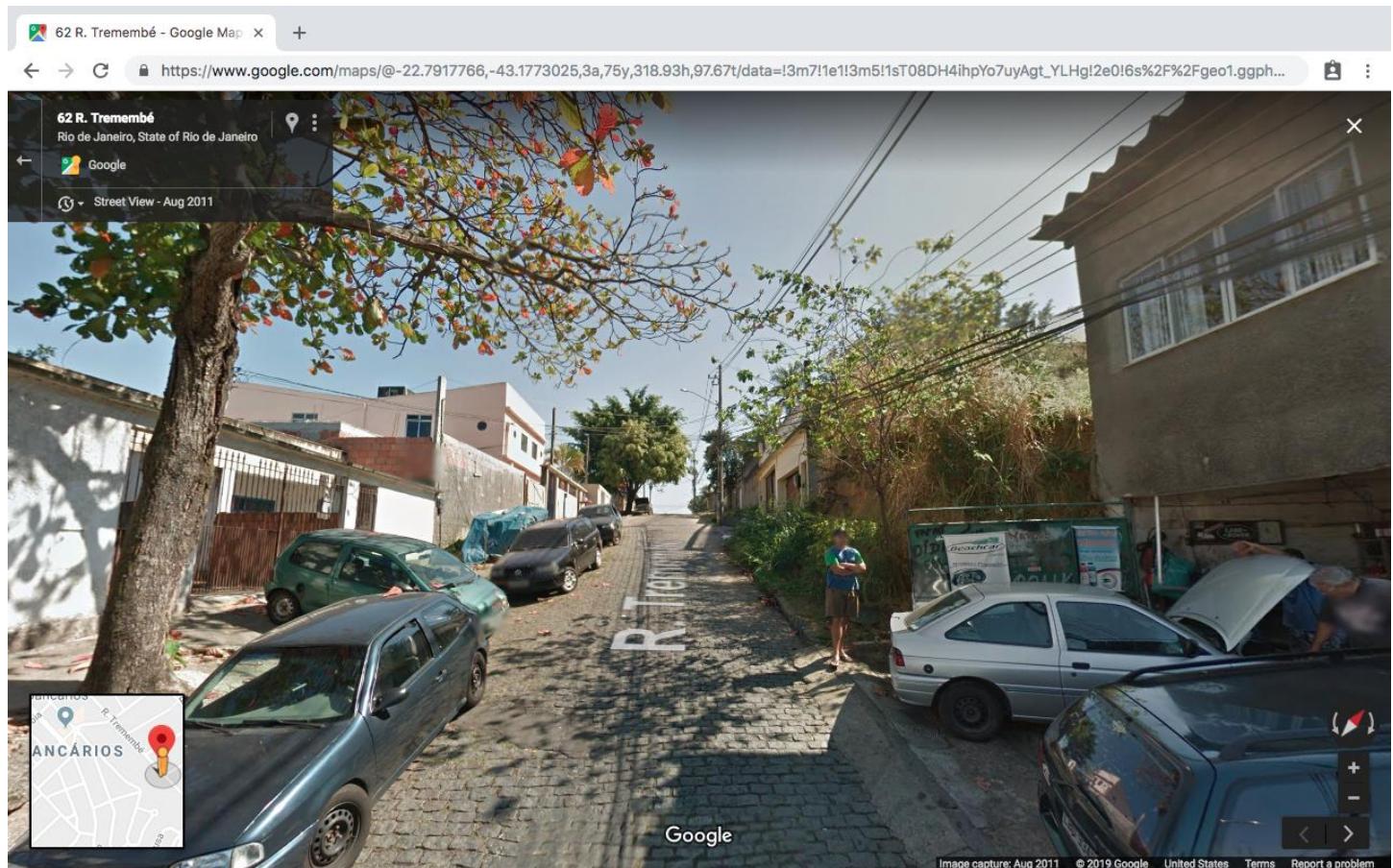
(continued on next page)

Obstruct pedestrians or vehicles



Street Conditions

The fourth set of items assesses street conditions. Poorly-maintained streets may be an indicator of disorder. Other items assess characteristics of street design that are relevant to pedestrian safety, such as the presence of crosswalks, bike lanes, and pedestrian refuges that can help pedestrians to cross busy streets.



Item 14 | str_mat**Question**

What is the material of the roadway?

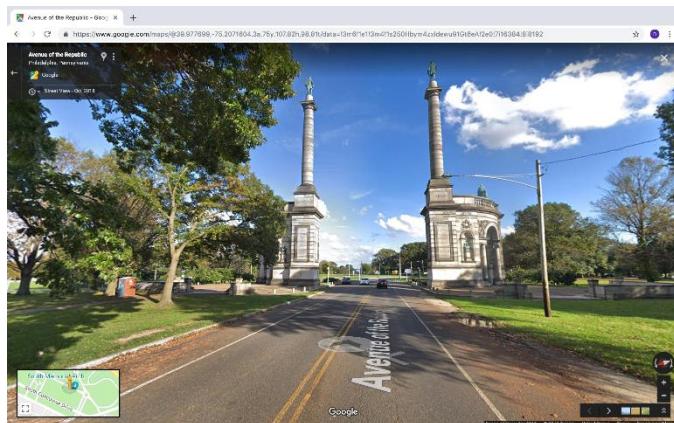
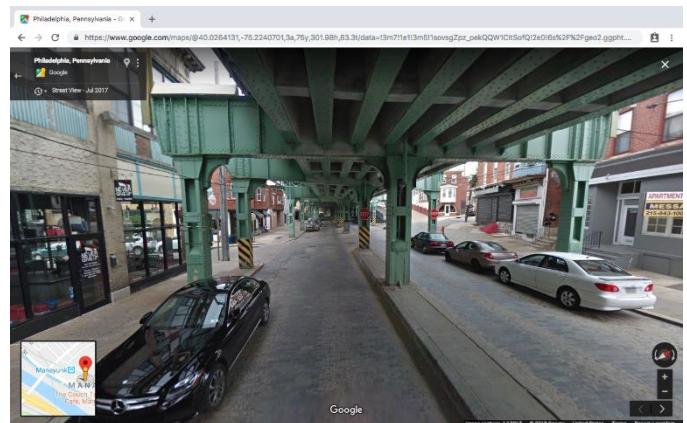
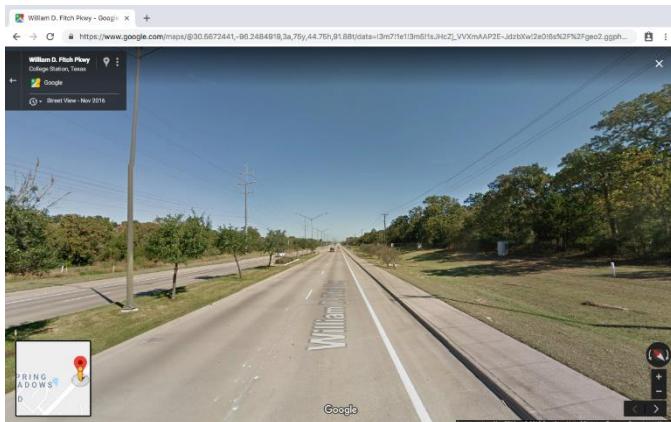
Response choices

0. Asphalt
1. Brick / cobble
2. Concrete
3. Dirt / grass
4. Gravel / crushed stone
5. Other

Skip if

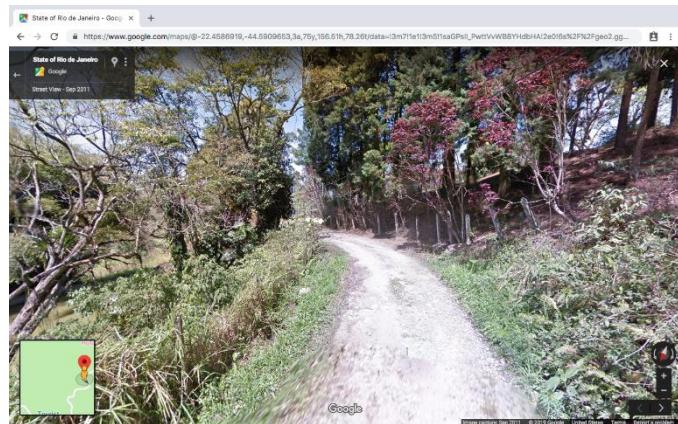
[not skippable]

Instructions: Indicate the material of the roadway. If multiple materials are used, indicate the material that comprises the greatest proportion of the surface area of the road.

Asphalt**Brick / cobble****Concrete****Dirt / grass**

(continued on next page)

Gravel / crushed stone



Item 15 | str_cond**Question**

What is the apparent condition of the roadway?

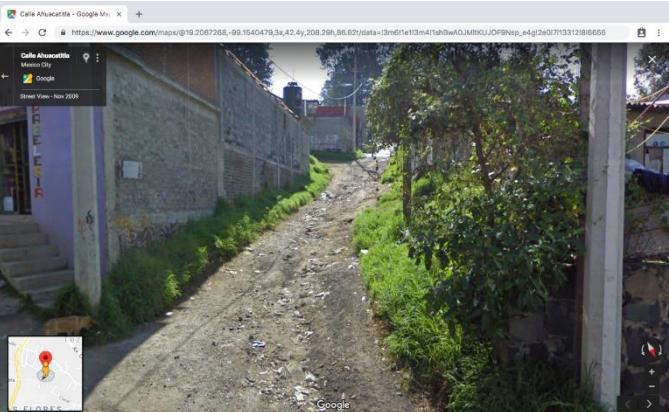
Response choices

0. Bad
1. Poor
2. Fair
3. Good
4. Very good

Skip if

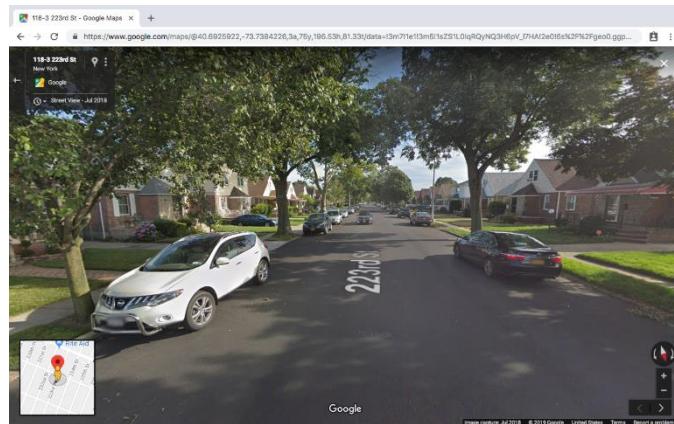
[not skippable]

Instructions: Indicate the condition or quality of the roadway. Do not conflate quality with material: a smooth and level dirt road may be in better condition than an uneven, potholed asphalt road.

Bad	Poor
	
Fair	Good
	

(continued on next page)

Very good



Item 16 | str_lanes**Question**

Can cars pass entirely through the segment?

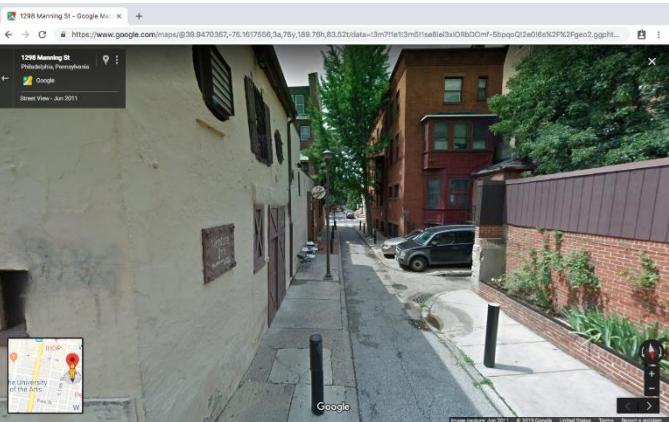
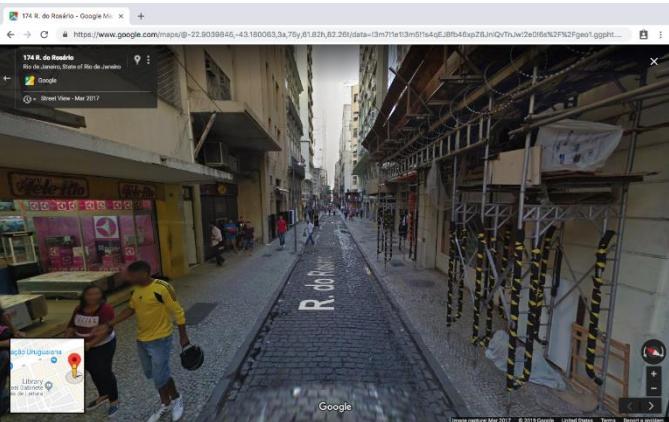
Response choices

0. No
1. Yes, one car
2. Yes, two or more cars

Skip if

[not skippable]

Instructions: Estimate the width of the road based on how many cars could comfortably navigate the segment side-by-side.

No	Yes, one car
	

Yes, two or more cars

Item 17 | str_dir**Question**

What is the directionality of the street?

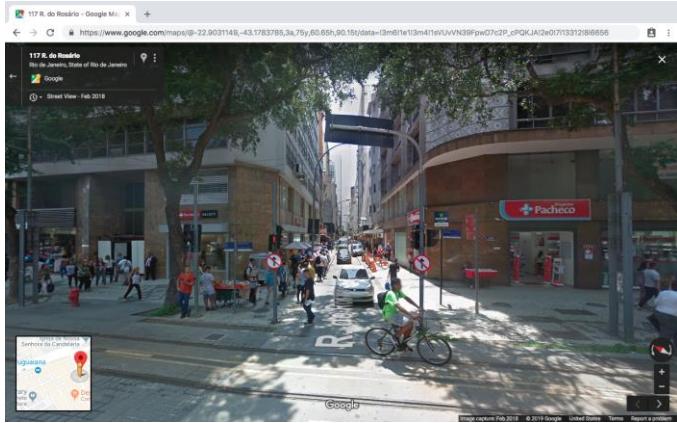
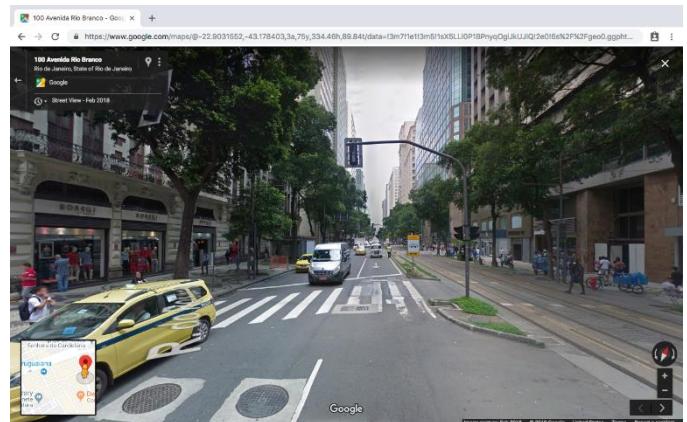
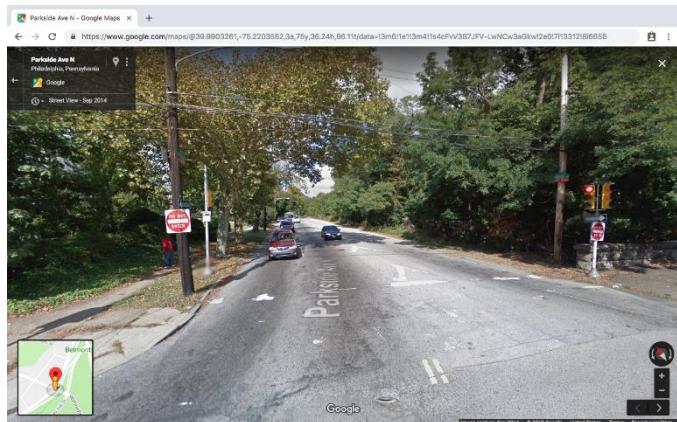
Response choices

0. One-way
1. Two-way

Skip if

[not skippable]

Instructions: Indicate whether the street is one-way or two-way. If there is no visible signage to indicate that the street is one-way, assume that it is two-way, regardless of width.

One-way

(continued on next page)

Two-way



Item 18 | str_lanevis**Question**

How visible are the lane markings?

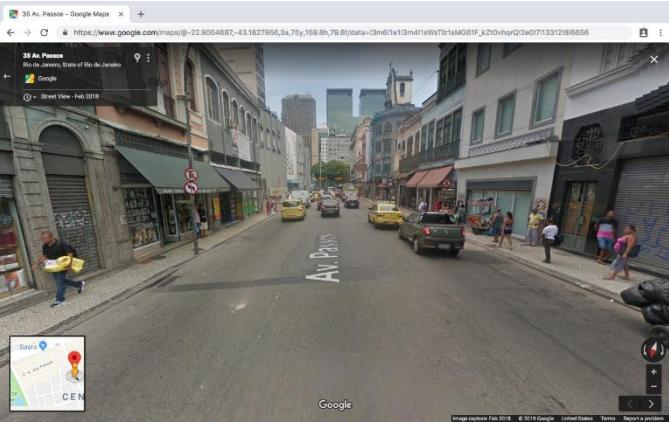
Response choices

0. No visible lane markings
1. Low visibility
2. Medium visibility
3. High visibility

Skip if

[not skippable]

Instructions: Indicate whether there are lane markings on the street, and if so, how clearly visible they are. Consider lane dividers as well as shoulder lines and painted bike lanes.

No visible lane markings	Low visibility
	
Medium visibility	High visibility
	

Item 19 | str_med**Question**

What type of median lane is present in the roadway?

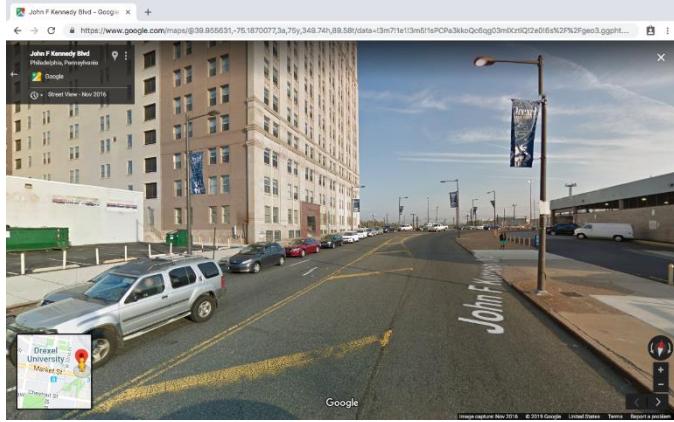
Response choices

0. None
1. Painted
2. Raised without pedestrian refuge
3. Raised with a pedestrian refuge

Skip if

[not skippable]

Instructions: Indicate whether there is a median lane marked or constructed in the street, and if present, what type it is.

None	Painted
	
Raised w/o pedestrian refuge	Raised with pedestrian refuge
	

Item 20 | str_tcont**Question**

What type of traffic control device is present?

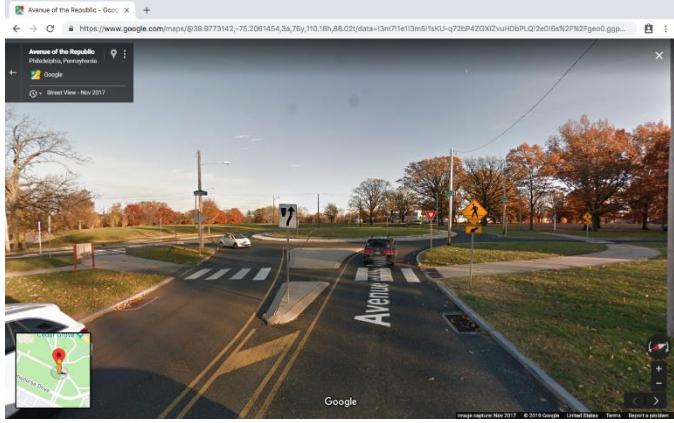
Response choices

0. None
1. Stop sign
2. Roundabout/circle
3. Traffic light

Skip if

[not skippable]

Instructions: Indicate the presence of a device to direct or control traffic with regard to the intersection closest to the green marker. The traffic control device may be located outside the segment as long as it controls the green marker intersection—for example, a stop sign that controls entry into a one-way segment may be on the opposite side of the intersection as the segment but would still be indicated by this item.

None	Stop sign
	
Roundabout/circle	Traffic light
	

Item 21 | str_scont**Question**

What type of speed control device is present?

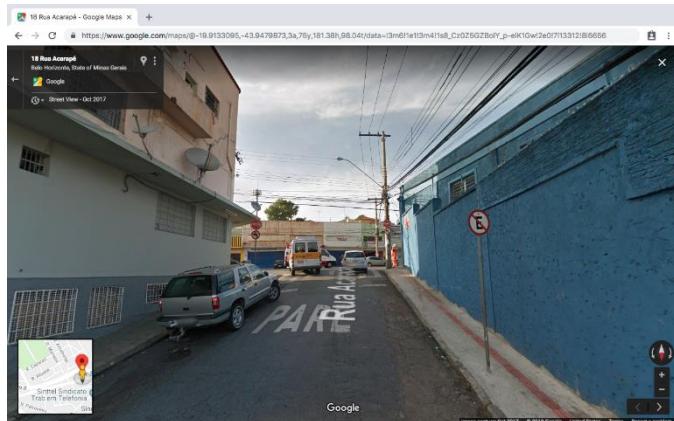
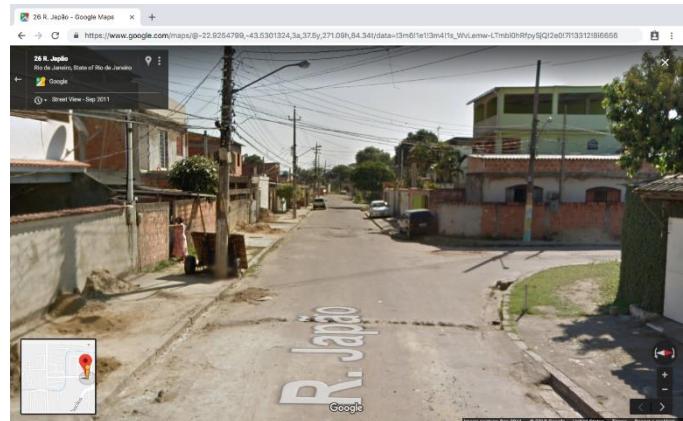
Response choices

0. None
1. Speed bump
2. Lane choker or bus bulb
3. Chicane
4. Multiple types

Skip if

[not skippable]

Instructions: Indicate the presence of a device to control or limit the speed of motor vehicles. Consider devices that are at the intersection closest to the green marker or in the midblock, but not devices that are completely located at other intersections.

None**Speed bump****Lane choker or bus bulb**

(continued on next page)

Chicane



Item 22 | str_cwalk**Question**

Is there a crosswalk present in the segment?

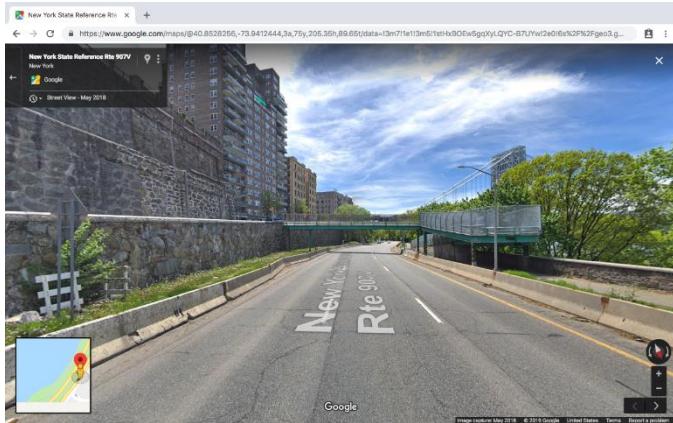
Response choices

0. No
1. Yes

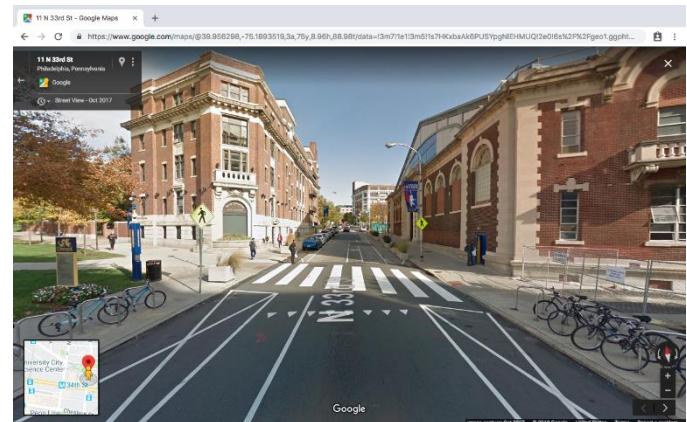
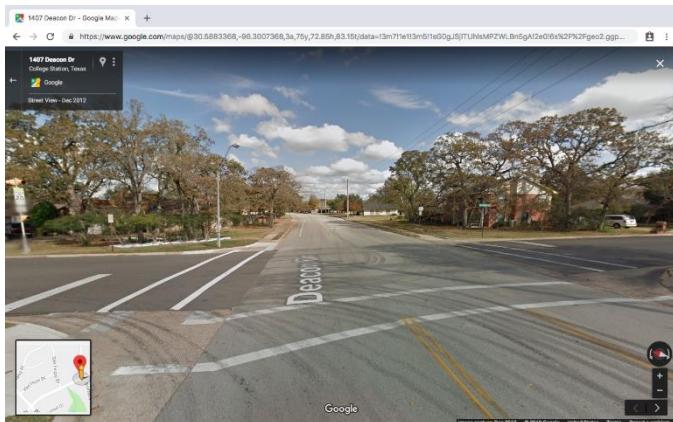
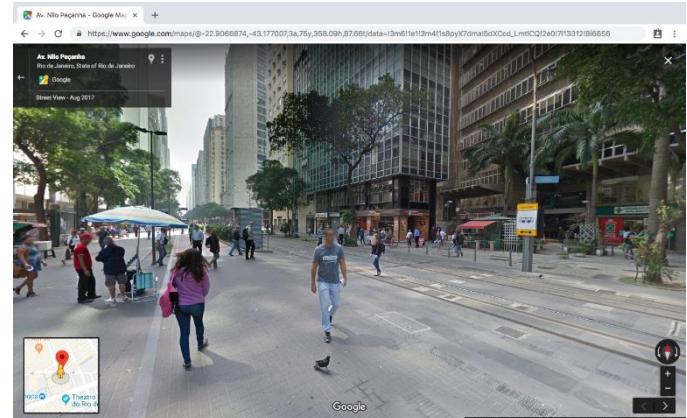
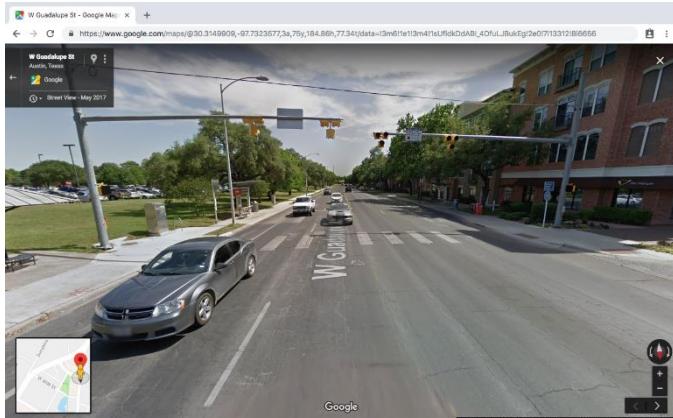
Skip if

[not skippable]

Instructions: Indicate the presence of a crosswalk in the segment. Consider only crosswalks that are at the intersection closest to the green marker or in the midblock.

No**(continued on next page)**

Yes



Item 23 | str_cstop**Question**

What is the driver stop type at the crosswalk?

Response choices

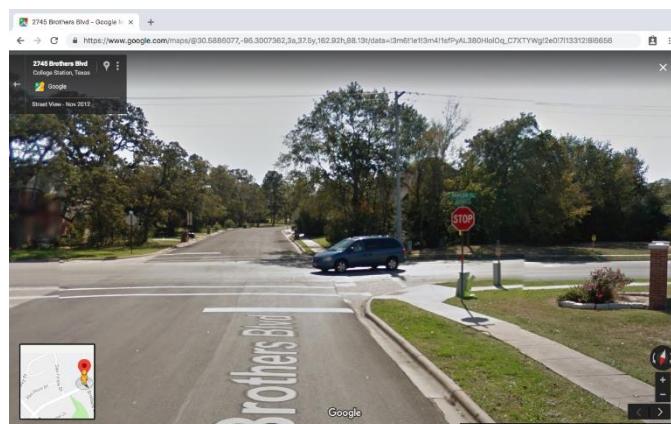
0. None
1. Yield
2. Stop sign
3. Traffic signal

Skip if

str_cwalk = 0

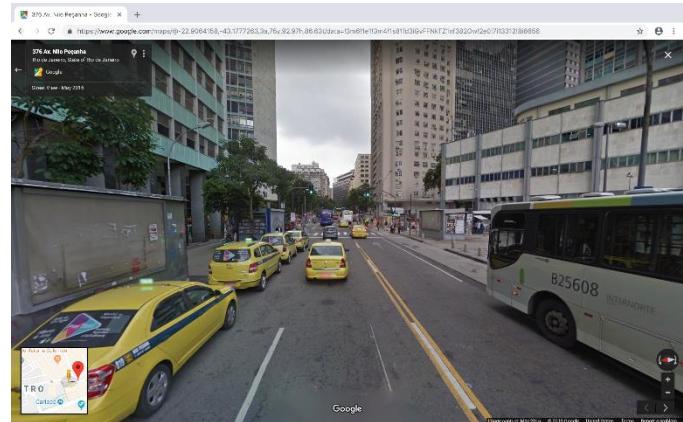
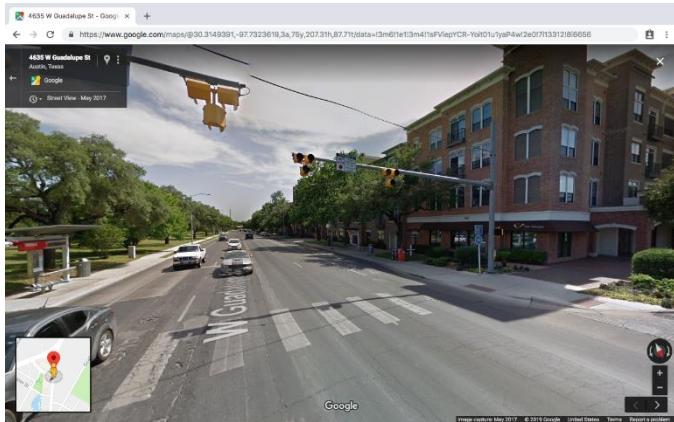
Instructions: Indicate the type of traffic control present at the crosswalk. If multiple crosswalks are present, consider only the crosswalk that is at or closest to the intersection closest to the green marker.

None	Yield
	

Stop sign

(continued on next page)

Traffic signal



Item 24 | str_ccurb**Question**

Does the curb extend out from the sidewalk at the crosswalk?

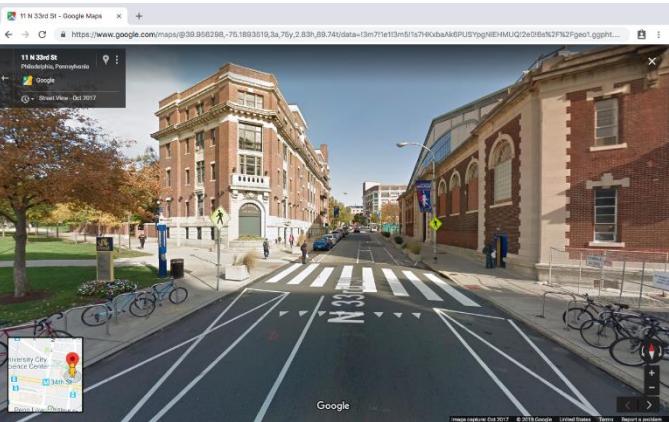
Response choices

0. No
1. Yes

Skip if

str_cwalk = 0

Instructions: Indicate whether the sidewalk extends into the street at the crosswalk. If multiple crosswalks are present, consider only the crosswalk that is at or closest to the intersection closest to the green marker.

No	Yes
	
	

Item 25 | str_intyp**Question**

What is the intersection type in the segment?

Response choices

0. Cul-de-sac
1. Midblock
2. 3-segment
3. 4-segment
4. 5 or more

Skip if

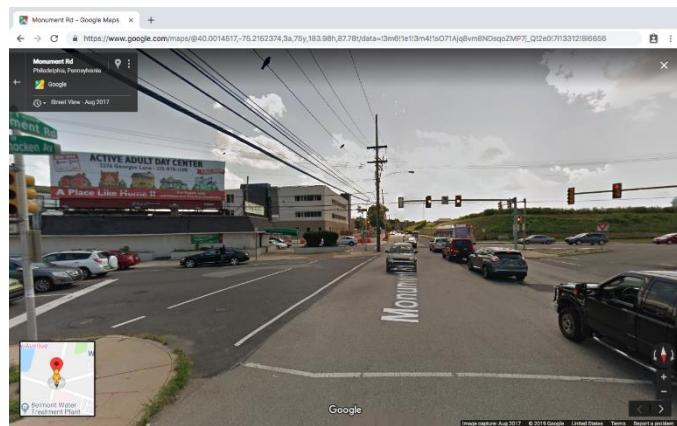
[not skippable]

Instructions: Indicate the type of intersection that is closest to the green marker.

Cul-de-sac	Midblock
	
3-segment	4-segment
	

(continued on next page)

5 or more



Item 26 | str_lane**Question**

What is the bike lane type?

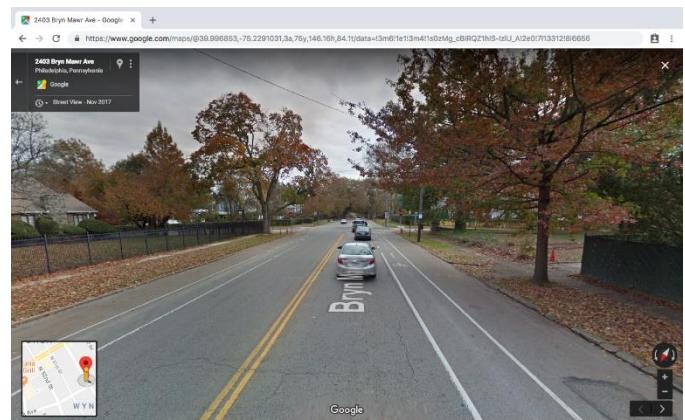
Response choices

0. None
1. Sharrows w/ all vehicles
2. Sharrows w/ buses
3. Unprotected
4. Protected
5. Separated path

Skip if

[not skippable]

Instructions: Indicate the type of bike lane present in the segment. Consider bike lanes that extend through the entire segment as well as bike lanes that are discontinuous. If the bike lane in the segment changes type along its length, select the response that describes the greatest proportion of the length of the bike lane.

None**Sharrows w/ all vehicles****Sharrows w/ buses****Unprotected**

(continued on next page)

Protected	Separated path
 A Google Street View image of Chestnut Street in Philadelphia, Pennsylvania. The street is lined with modern buildings, including the Princeton Review office. A protected bike lane is visible on the left side of the road, separated from the car traffic by a white line. A red car is parked on the right side of the street. The image is dated September 2017.	 A Google Street View image of New York State Reference Route 907V in New York. The road is a two-lane highway with a concrete barrier separating the opposing traffic. A green tree-lined embankment runs alongside the road. A blue car is driving away from the camera. The image is dated May 2018.

Item 27 | str_mod**Question**

Does the street provide any temporary modifications to motor vehicle traffic?

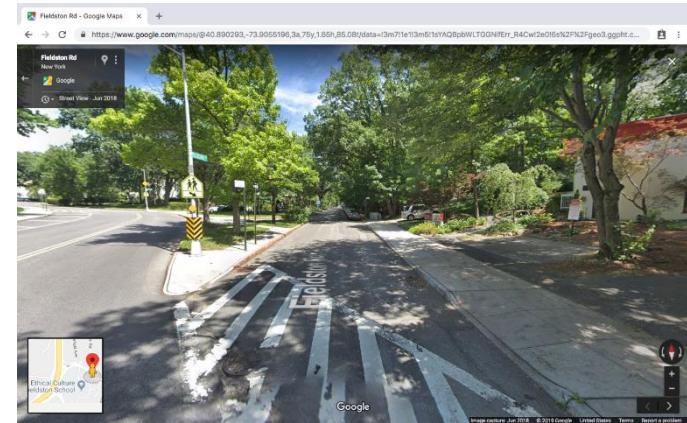
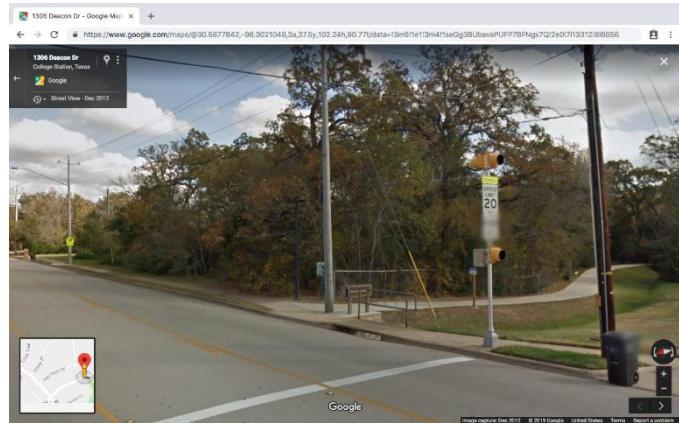
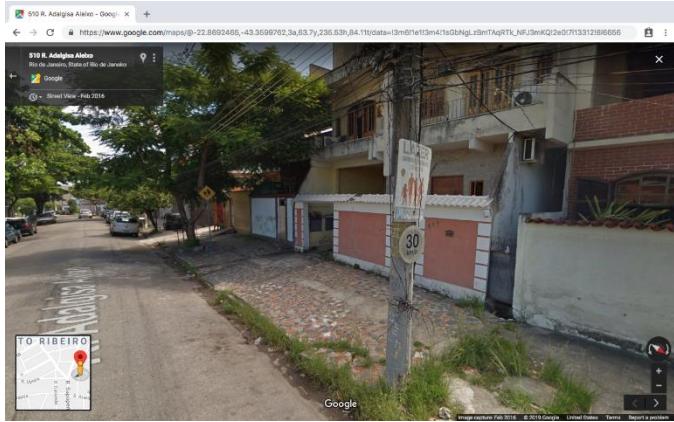
Response choices

0. No
1. Yes, a school zone
2. Yes, a recreation zone
3. Yes, a temporary bike lane
4. Yes, some other modification

Skip if

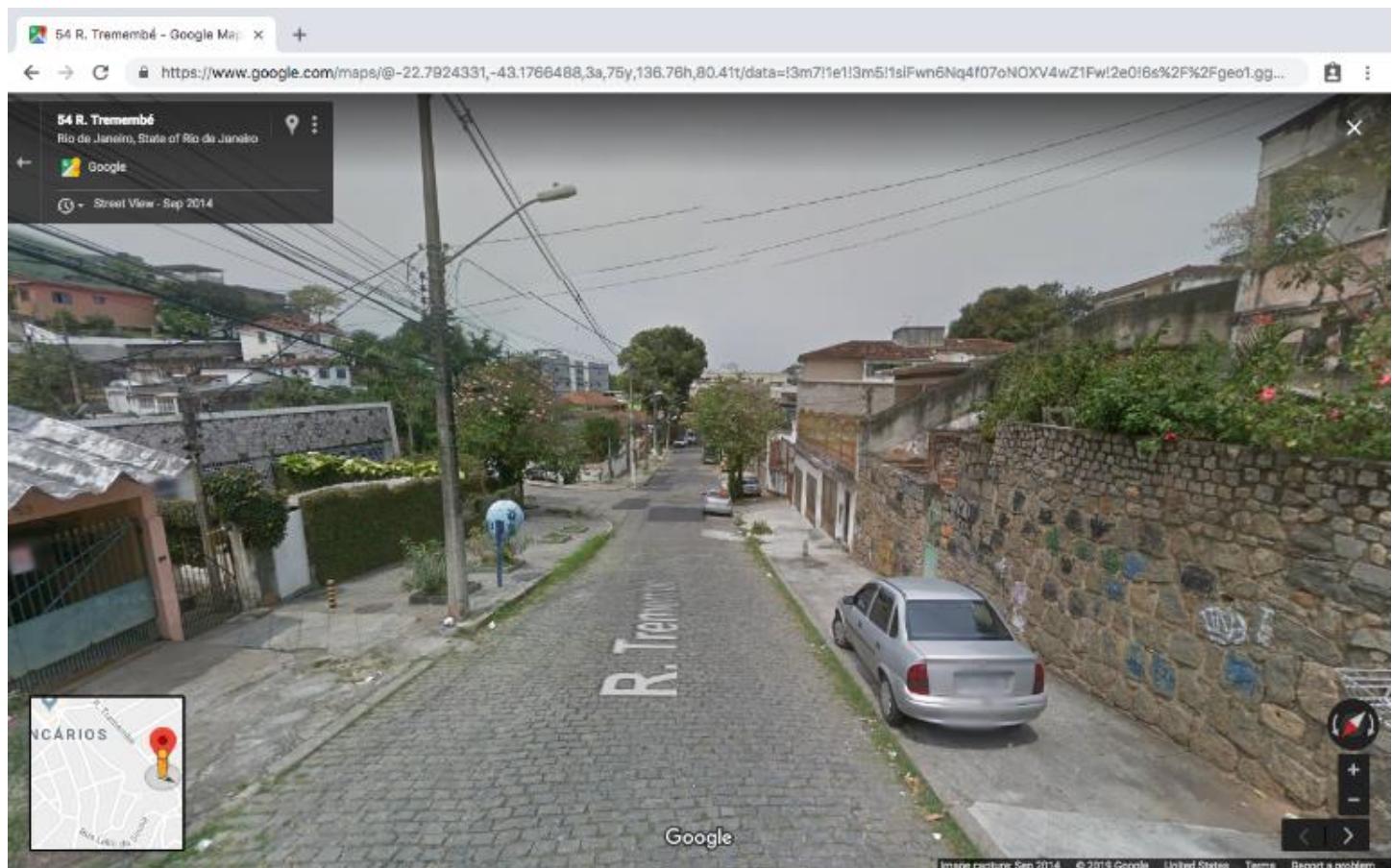
[not skippable]

Instructions: Indicate whether there is any visible evidence that motor vehicle traffic is ever modified, such as by a school zone. Temporary modifications may include changes to the speed limit, lane closures, or complete closures of the street.

No**Yes, a school zone****Yes, a recreation zone****Yes, a temporary bike lane**

Sidewalk Conditions

The fifth set of items assesses sidewalk conditions. Sidewalks are a critical component of pedestrian infrastructure, providing physical separation between cars and pedestrians. Because of the wide spectrum of how sidewalks can appear in different cities, this section divides the concept of sidewalks into multiple aspects to assess their presence, quality, continuity, and level of obstruction.



Item 28 | swalk_pres**Question**

Is there a sidewalk present on the segment?

Response choices

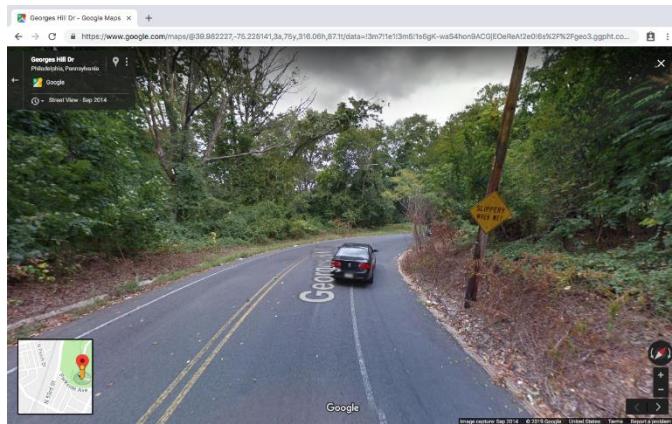
0. No
1. Yes, on one side
2. Yes, on both sides

Skip if

[not skippable]

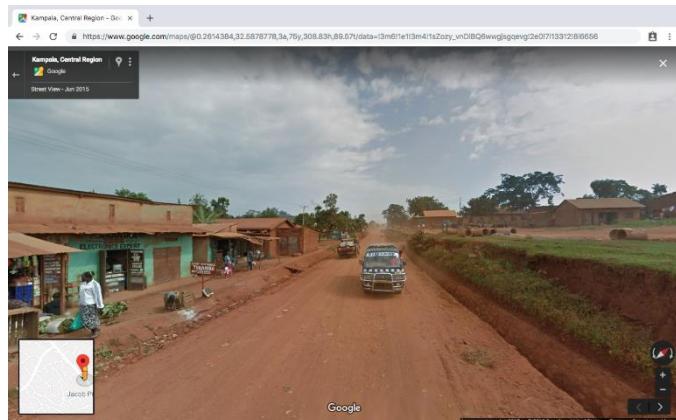
Instructions: Indicate the presence of a pedestrian path on the side of the road. The sidewalk may be paved or unpaved, may be even or uneven, and may or may not overlap with driveways for buildings along the segment.

No

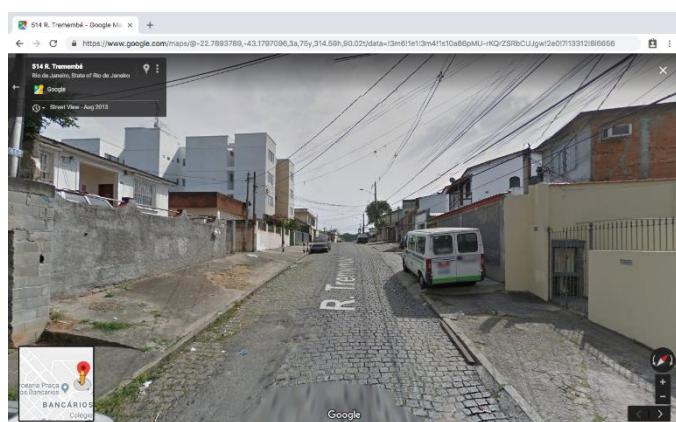


(continued on next page)

Yes, on one side



Yes, on both sides



Item 29 | swalk_sep**Question**

Is the sidewalk separated from the roadway?

Response choices

0. No separation or curb only
1. Separated with buffer, fence, or wall

Skip if

swalk_pres = 0

Instructions: Indicate whether the sidewalk is separated from the roadway. If one side is separated and the other is not, indicate that the sidewalk is separated. If the sidewalk is separated at some places and not at others, indicate the response that corresponds with the greater proportion of the length of the sidewalk.

No separation / curb only**Separated with buffer / fence/ wall**

Item 30 | swalk_mat**Question**

What is the material of the sidewalk?

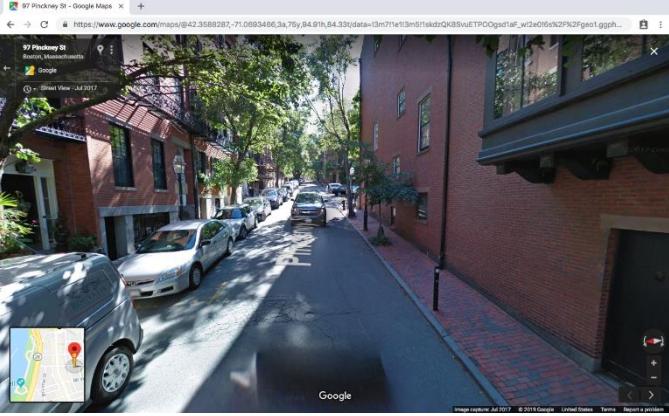
Response choices

0. Asphalt
1. Brick / cobble
2. Concrete
3. Dirt / grass
4. Gravel / crushed stone
5. Other

Skip if

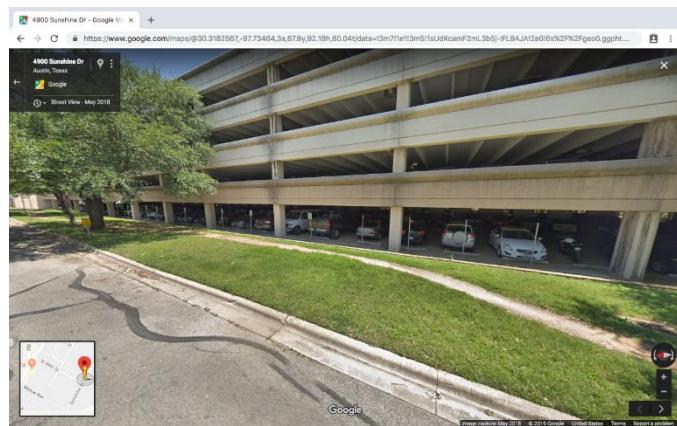
swalk_pres = 0

Instructions: Indicate the material of the roadway. If multiple materials are used, or if different materials are used on alternate sidewalks, indicate the material that comprises the greatest proportion of the total surface area of sidewalk.

Asphalt	Brick / cobble
	
Concrete	Dirt / grass
	

(continued on next page)

Gravel / crushed stone



Item 31 | swalk_ext**Question**

Does the sidewalk extend along the entire segment?

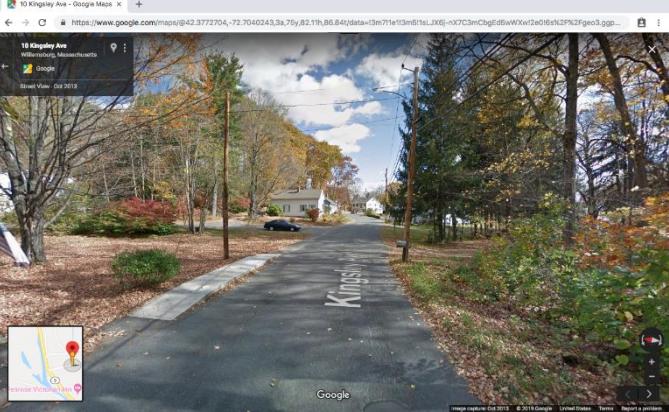
Response choices

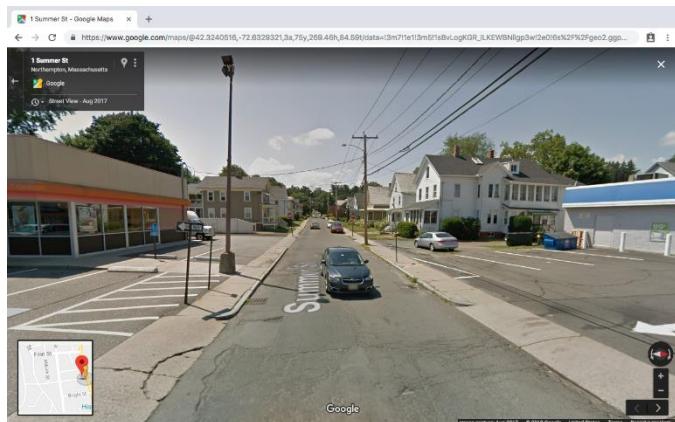
0. No
1. Yes, on one side
2. Yes, on both sides

Skip if

swalk_pres = 0

Instructions: Indicate whether the sidewalk exists along the entire length of the segment in any form, paved or unpaved.

No	Yes, on one side
	

Yes, on both sides

Item 32 | swalk_uneven**Question**

Is the sidewalk even along its entire length?

Response choices

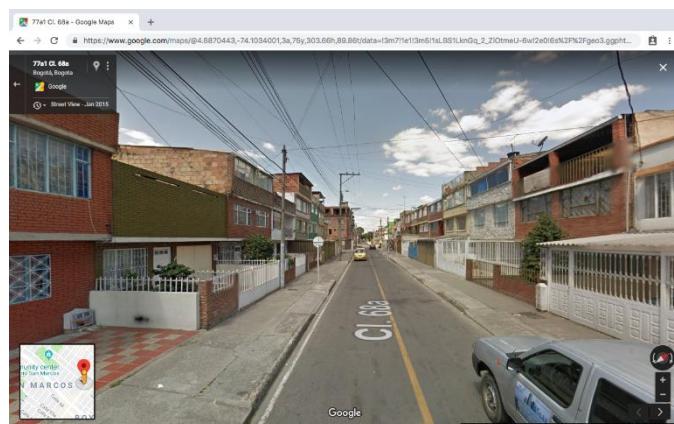
0. No
1. Yes, on one side
2. Yes, on both sides

Skip if

swalk_pres = 0

Instructions: Indicate whether the sidewalk is smooth, unbroken, and at a reasonably consistent grade along its entire length. As a guideline, consider whether a person in a wheelchair could comfortably navigate the entire sidewalk. Sidewalks that are obstructed by any object other than the surface of the sidewalk itself should be indicated by Item 33 "swalk_cont."

No	Yes, on one side
	

Yes, on both sides

Item 33 | swalk_cont**Question**

Is the sidewalk unobstructed along its entire length?

Response choices

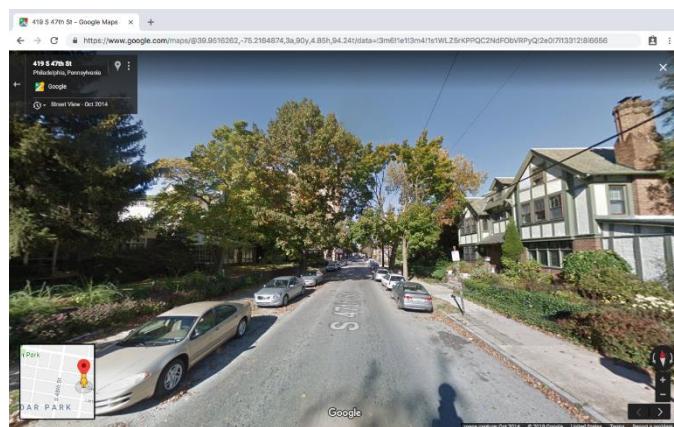
0. No
1. Yes, on one side
2. Yes, on both sides

Skip if

swalk_pres = 0

Instructions: Indicate whether the sidewalk is clear and unobstructed along its entire length. As a guideline, consider whether a pedestrian would be able to navigate the entire segment without deviating from the centerline of the sidewalk. Sidewalks that are impassable due to brokenness or an uneven grade should be indicated by Item 32 "swalk_uneven."

No	Yes, on one side
	

Yes, on both sides

Item 34 | swalk_why**Question**

What is obstructing the sidewalk?

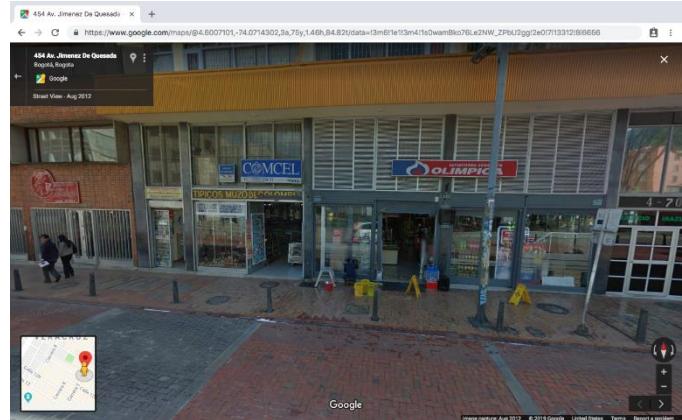
Response choices

0. Cars parked on sidewalk
1. Construction / construction materials
2. Street vendors, café tables, or other business activity
3. Other obstruction on sidewalk
4. Multiple issues

Skip if

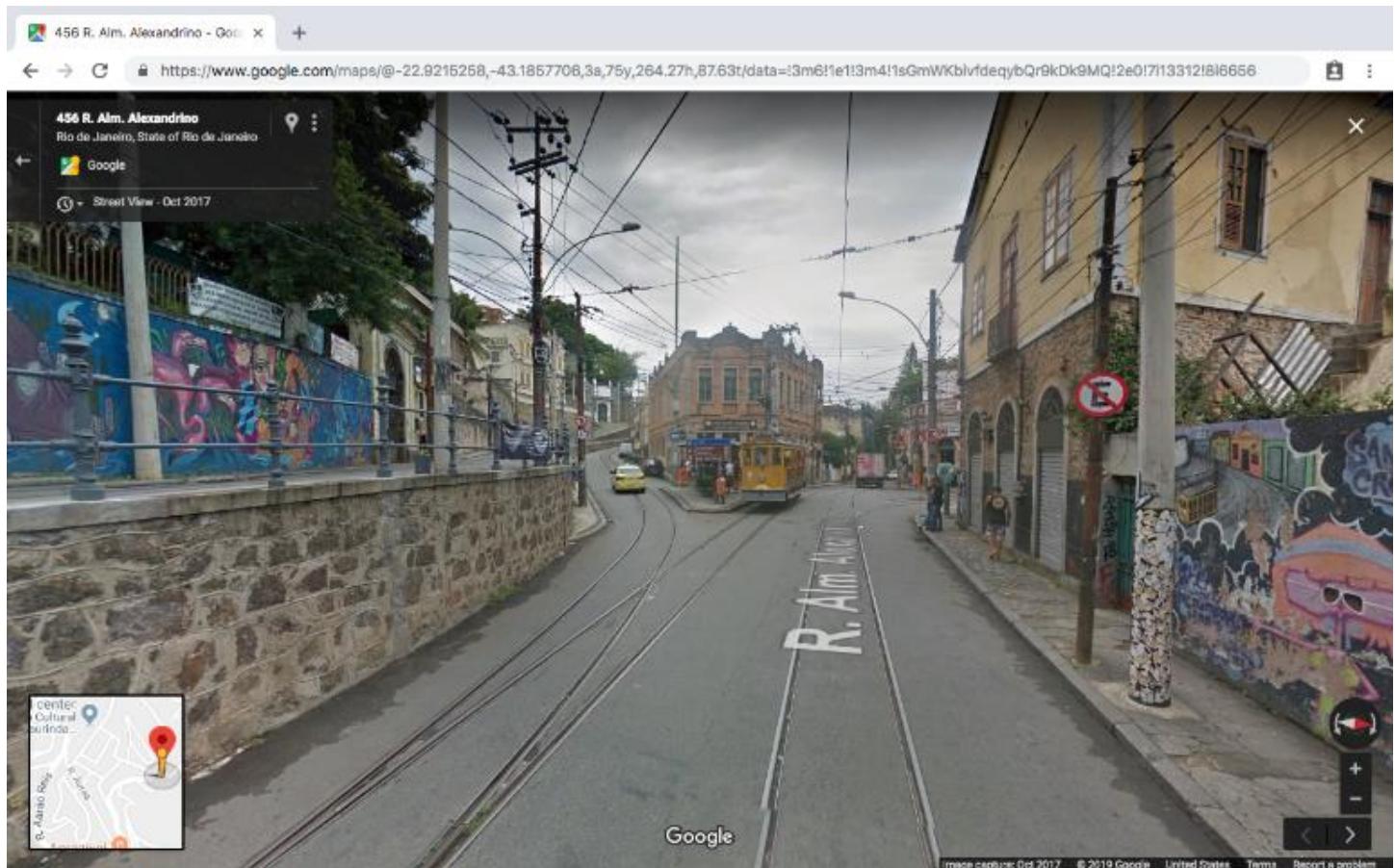
swalk_cont = 2

Instructions: Indicate the reason why the sidewalk is obstructed.

Cars**Construction****Street vendors / café tables****Other obstruction**

Public Transit

The sixth and final set of items assesses public transportation. Some aspects of public transit design are relevant to pedestrian safety, such as the presence of railroad safety features.



Item 35 | trans_lane**Question**

Does the segment contain a dedicated bus lane or streetcar / light rail tracks?

Response choices

0. No
1. Yes

Skip if

[not skippable]

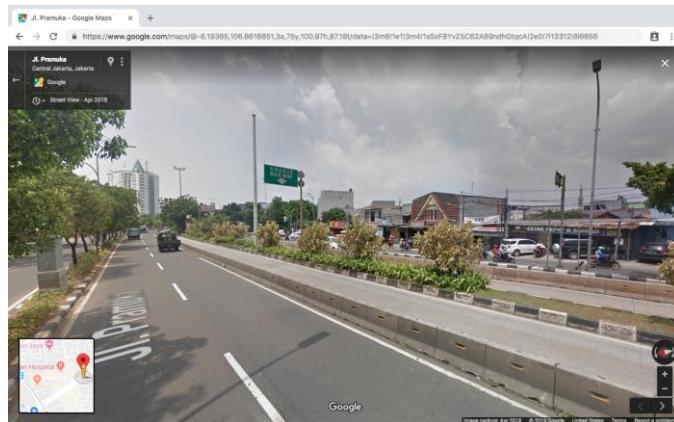
Instructions: Indicate the presence of a bus lane or light rail tracks on the segment. Consider lanes or tracks that extend along the segment or that traverse the intersection closest to the green marker.

No



(continued on next page)

Yes



Item 36 | trans_bsep**Question**

Is the bus lane or streetcar / light rail tracks separated from other vehicle traffic by barriers, curbs, or any other structure?

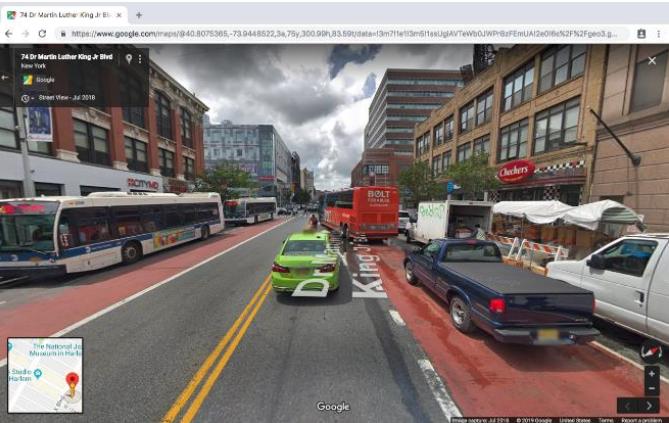
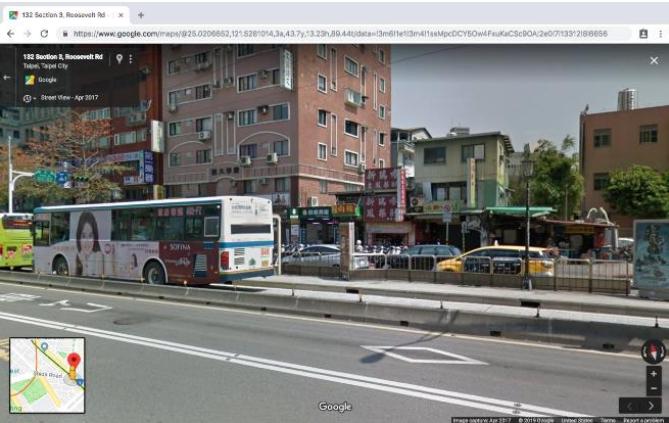
Response choices

0. No
1. Yes

Skip if

trans_blane = 0

Instructions: Indicate whether the bus lane or light rail tracks are physically separated from other traffic. Consider curbs, fencing, or grade separation, but not paint or signage.

No	Yes
	
	

Item 37 | trans_train**Question**

Are there heavy-rail train tracks present?

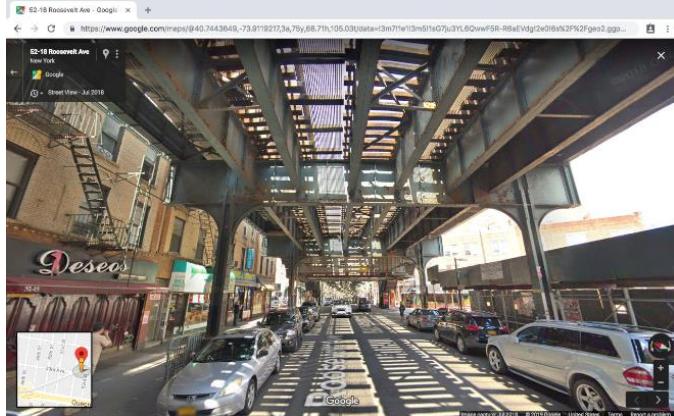
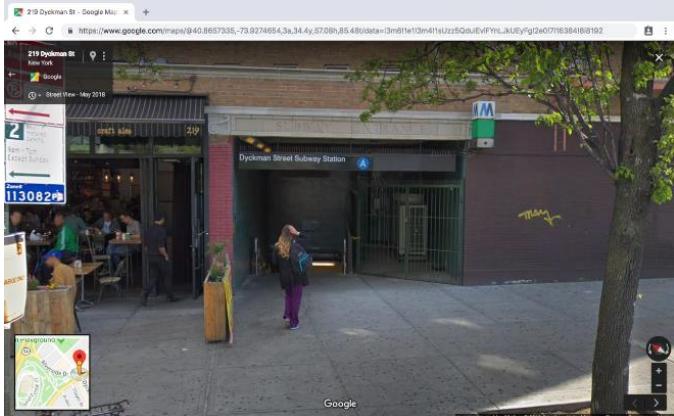
Response choices

0. No
1. Yes

Skip if

[not skippable]

Instructions: Indicate whether there are heavy rail tracks visible from the segment. Consider tracks that are alongside the segment or elevated above it, as well as tracks that cross the segment at the intersection closest to the green marker.

No	Yes
	
	

Item 38 | trans_tsafe**Question**

What railroad safety measures are present?

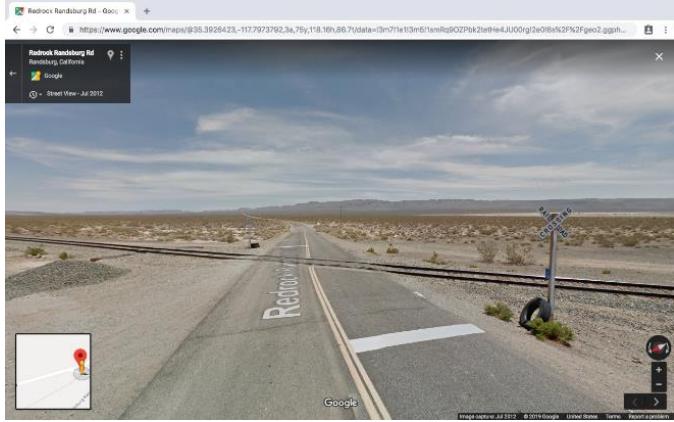
Response choices

0. None
1. The tracks are grade separated
2. Signage, pavement markings, or texturing
3. Barrier arm, fencing, or a pedestrian barrier

Skip if

trans_train = 0

Instructions: Indicate the presence of railroad safety measures with regard to the heavy rail tracks.

None	Grade separated
	
Signage / markings / texturing	Barrier arm / fencing / pedestrian barrier
	

Glossary

aesthetic – concerned with beauty or the appreciation of beauty¹

asphalt – a mixture of dark bituminous pitch with sand or gravel, used for surfacing roads¹

awning – a roof-like covering or canvas of similar material, used as a shelter from sun, rain, etc.¹

barrier arm – a pole that pivots up and down to block vehicular access at a controlled point

bike lane – a lane, typically on or alongside a road, that is reserved for cyclists, or on which cyclists have priority over other traffic¹

bollard – a short post used to prevent traffic from entering an area¹

breezeblocks – a lightweight building brick made from small cinders mixed with sand and cement¹ - sometimes with a hollow, decorative pattern

brick – a small rectangular block typically made of fired or sun-dried clay¹

bus bulb – curb that extends outward onto the road for a bus stop

bus lane – a traffic lane restricted to use by buses (and sometimes other designated vehicles), either all day or at certain times¹

bus shelter – a shelter at a bus stop, providing protection from the weather for people waiting for a bus¹

centerline – a real or imaginary line through the center of something¹

chicane – design features placed on road that create a sharp bend to slow traffic

cobble – small round stone used to cover road surfaces¹

concrete – a building material made from a mixture of broken stone or gravel, sand, cement, and water, which can be spread or poured into moulds and forms a mass resembling stone on hardening¹

cone – a cone-shaped warning sign placed on the roadway, etc., and used in (temporary) road traffic control¹

crosswalk – a pedestrian crossing¹

cul-de-sac – a street, lane, or passage closed at one end, a blind alley; a place having no outlet except by the entrance¹

curb – a margin of stone or other strong material protecting the outer edge of a sidewalk and separating it from the roadway¹

directional – indicating the direction in which something is moving¹

false façade – a fake exterior wall on the front of a building that is not representative of what lies behind it

grade – amount of inclination to the horizontal¹

gravel – a mixture of gravel with coarse sand, used for paths and roads¹

greenspace – an area of grass or other vegetation¹

heavy-rail track – mode of transit service operating on a railway with the capacity for a heavy volume of traffic²

ironwork – work done in iron; material or articles made of iron; iron fittings¹

intersection – a point at which two or more things intersect, especially a road junction¹

landscaped – laid out with plants, ornamental features¹

lane choker – curb that extends outward onto the road to slow down traffic

lane marking – painted lines on the road that separate traffic lanes

light rail – mode of transit service operating short passenger rail cars on fixed rails²

masonry – stonework, brickwork¹

median lane – area that separates opposing lanes of traffic

midblock – located somewhere in the middle of the block but not at an intersection

overpass – a footbridge¹

planter – a pot, tub, or container for growing or displaying plants¹

pothole – a depression or hollow forming a defect in the surface of a road, track, etc.¹

recreation zone – area that is designated (temporarily or permanently) for recreational purposes

roundabout – a junction of several roads consisting of a central (usually circular) island around which traffic moves in one direction¹

sanction – official permission or approval¹

sapling – a young tree¹

school zone – area that is near a school where there will be younger pedestrians on the roads and sidewalks at certain hours

setback – the distance by which a building or part of a building is set back from the property line¹

sharrow – a road marking in the form of two inverted V-shapes above a bicycle, indicated which part of a road should be used by cyclists when the roadway is shared with motor vehicles¹

speed bump – ridge set on a road surface to control the speed of vehicles¹

streetcar – a passenger vehicle, now typically powered by electricity conveyed by overhead power lines, running on rails set in a public road; a tram¹

tag – a nickname or other identifying mark written as the signature of a graffiti artist¹

underpass – a section of road providing passage beneath another road or railway¹

vegetation – plants or plant life collectively¹

¹ Oxford English Dictionary

² American Public Transit Association – Fact Book Glossary