Author's response to reviews

Title: Associations between the built environment, total, recreational, and transit-related physical activity.

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Author's response to reviews: see over
The author’s would like to thank the editor and reviewers for their continued review of our manuscript. As Reviewer 1 accepted all of our comments and changes based on their recommendations, we will address Reviewer 2’s comments below.

Responses to Reviewer 2

1. The authors need to identify the potential limitation of using only one buffer size to generate built environment estimates. It is very likely that variation in values derived from using different buffer sizes would lead to different results.

Response:
Thank you for the comment. The following sentence has been added to the manuscript:

“Future research should explore expanding the buffer zone to cover a larger walking distance provided sufficient data can be obtained to incorporate more measures of the built environment, thus providing a more robust estimation of the local landscape. It is possible that the magnitude of effects found within these analyses would differ depending on the size of the buffer zone.”

2. Rational for not using network analyses does not hold in urban areas. Postal codes can be geocoded to block level.

Response:
The authors agree that using network analysis in urban areas is preferable. However, York Region contains mainly rural and suburban areas, with some urban regions. To keep the analyses consistent, only the Euclidean distance was applied to all respondents, irrespective of their location. Applying network distance to a large postal code block (such as those found in rural areas where the population is small) could exaggerate the walking range and would create a distorted landscape of the local neighborhood environment.

Network distance is often used as a measure of the realistic travel paths respondents could take to commute. It is useful to have information on sidewalks with road network data to discern roadways that are designed exclusively for motor vehicles and those that could also be accessed by pedestrians and cyclists (i.e. those using sidewalks).

The following sentence has been added to the manuscript:

“It would be helpful to assess points of interest in regard to walking distance within the local neighborhood. Researchers investigating associations between leisure- and transport-related physical activity with places to commute would benefit from calculating buffer zones based on network distance as this provides a more accurate indication of the routes realistically travelled. Road network data containing information on sidewalks and park trails/paths would help define pathways that would be exclusively used by cars and those that could be used for pedestrian and cyclists.”