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# GIS TECHNOLOGY APPLIED ON AN URBAN MOBILITY PROPOSAL

Bárbara Rita CONSTANTINIDIS

Universidad de Belgrano  
barabaraq@gmail.com

## Introduction

The scientific poster has a graphic presentation of a proposal base on an Urban Mobility Study including a preliminary proposal and transportation alternatives on one of the main corridors of the City of Buenos Aires: The 'Cabildo' Avenue between the 'General Paz' Highway and the 'Jorge Newbery' street, located on the 'Belgrano' neighborhood, located in the 'Comuna 13' or 13th district, covering approximately 5 km of the city.

This proposal was presented to professionals and officials from the 13th district, due to an agreement of academic collaboration with the Faculty of Architecture and Urban Planning of the University of Belgrano.

The main objectives consist in the elaboration of an urban diagnostic and analysis of the selected corridor surroundings; Consisting in an environmental urban quality improvement on 'Cabildo' Ave. Together with the integral preservation of adjacent streets; All generating alternatives and proposals for improved mobility on the 'Cabildo' corridor; lying on a first stretch of study between the 'General Paz' highway and the 'Nuñez' street.

## Development

The development of the academic activities with urban application includes field survey tasks of traffic counts database uploading and surveys involving plot land use of the area studied, specially identifying commercial uses. This data was analyzed through Geographic Information Systems (GIS), which have demonstrated the benefits of utilizing the Q\_Gis soft applied by the University of Salzburg.

To complement the exposition of the study results, scaled plans and street sections were included, together with 3d models illustrating the current urban situation allowing comparison with new proposals and alternatives.

In elaborating the project alternatives, Urban sustainability criteria were adopted to promote public transportation, transferring travel in the Metropolitan area towards peripheral transfer nodes, in order to recover the use of the Subway 'Subte' and Railway for the citizens of Buenos Aires.

## Conclusion:

The analysis has determined that the Urban Environmental Quality of the 'Cabildo' Avenue. differs ostensibly with the data from internal streets (transverse and parallel), therefore these internal streets must be integrally preserved, and the road traffic of the

Avenue ordered, as its traffic capacity is on the limit during peak hours, so the segregation of the systems of public transportation in the corridor would be a suitable measure.

Segregation of public transportation can be done by different variants ranging from exclusive lanes to greater infrastructure for BRT routes (known locally as Metrobus) to LRT (light rail) systems.

Exclusive lanes for buses and taxis were the variety selected, considering lower costs, and shorter time for construction and execution in the scope of the 13th District, therefore proposing this alternative of exclusive lanes, the incorporation of bus stops infrastructure and their re-ordering separating them in a one-per-block scheme.

The proposal achieves an image of unity composed from the continuity of the used street furniture including street lighting, new plant species in the boulevard, and a sequence of landmarks which bring a sustained significance to the entire street haul.