

Route 110 Bus Rapid Transit Study



Client/Owner: Town of Babylon

Project Location: Town of Babylon, NY

GPI will study the implementation of a Bus Rapid Transit System (BRT) on the Route 110 Corridor. For this purpose, existing traffic data will be collected. This will include traffic counts, field geometry, signal timings, bus routing, ridership information, etc. Using this existing information, a "Baseline" microsimulation traffic model will be developed utilizing Vissim software. This will help us to study the realistic behavior of traffic operation and visualization of the traffic operational results. The "Base" network would be established to represent existing (field) conditions for the highest volume peak hour traffic operations of a typical weekday. The parameters associated with the BRT-TSP operations will be established after assessing the requirements of the Route 110 Corridor. This will include review of:

- Traffic signal priority strategies – Advance green or extended green, etc.
- Bus stop placements – Nearside vs. far side of intersection.
- Priority control parameters – Maximum extension, maximum truncation, range of detection, etc. at any intersection.
- Intersection priority strategies – Selection of priority locations within the study limit with TSP priority.
- Provision of the minimum walk time and don't walk time during TSP operations.
- Effect of progression of buses in opposing direction of traffic.
- Establishment of Queue Jumper Lanes and typical geometrical layout to be utilized for specific intersections that are studied for this project.

Once these parameters are established, they will be used as the key inputs to the proposed BRT analysis model for evaluation of various BRT alternatives. The Vissim peak hour BRT model will be developed such that we will be able to determine delays and other relevant MOE parameters by mode of travel (auto, bus, truck). Comparison of MOE's between the existing condition and the alternatives will help us to depict the most feasible alternative for design and implementation.