

Environmental Impacts Of The Massachusetts Turnpike And Central Artery/Tunnel Projects



Client

Facts

Period 2008

Project Country

Economic Development Research Group for the Massachusetts Turnpike Authority, 2006

Too often, environmental impacts of transportation projects are viewed narrowly, focusing on disruptions. Yet Boston's Central Artery Tunnel Project and Massachusetts Turnpike toll facility improvements together illustrate the range of actual impacts that can result from context sensitive design and efficiency improvements.

The replacement of an elevated highway structure with an underground route for I-93 in Central Boston has led to improvements including: (1) reduced noise levels alongside the route, (2) enhanced visual environment (elimination of blocked sun from elevated structures) for neighbors, and (3) improved sewer and water flows. The replacement of a badly congested highway facility with a more free flowing route at this time has also led to (4) reduced air pollution emissions associated with slow moving vehicles and traffic backups. The reconnecting of neighborhoods and construction of parks, beaches and harborwalk routes has also led to (5) enhanced pedestrian environments.

As the Central/Artery Tunnel project reached substantial completion, the Massachusetts Turnpike Authority (owner of the highway facilities in central Boston) commissioned a study to assess the magnitude of the project's environmental effects. The Authority hired Economic Development Research Group to assess the relative magnitude of these impacts. The study also examined the environmental implications of other improvement projects along the I-90 Massachusetts Turnpike, including air pollution reduction associated with reduced delay at toll booths due to the introduction of automated toll collection with transponders.

The report discussed the range of these environmental impacts, the causal factors underlying those improvements, and the estimated magnitude of the associated effects. For instance, the new underground traffic route has reduced neighborhood noise levels by 25-33 per cent, depending on the time of day. Further information is available in the report and an associated newspaper article.

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