Executive Summary

The Conservation Law Foundation (CLF) and the Massachusetts Housing Investment Corporation (MHIC) have proposed the creation of a $30 million private equity fund model that would consider the community, environmental, and health benefits of a proposed project as well as the financial risks and returns. The model, known as the Healthy Neighborhoods Equity Fund (HNEF), would result in investments that have the potential to transform neighborhoods, strengthen population and environmental health, and promote regional equity while providing investors with financial and social returns.

This Health Impact Assessment (HIA) examines the potential health impacts that could result from investments made by the HNEF. The analysis was conducted by using three Transit Oriented Development (TOD) projects in the City of Boston (Bartlett Place, Madison Tropical Parcel 10, and Parcel 25), and their cumulative impacts as case studies, since they are potentially aligned with the type of projects that the HNEF would support. These case study projects, located in Roxbury or Mission Hill, were also chosen in part because of their representative locations in Boston. These neighborhoods are challenged by health and environmental inequities such as higher unemployment, lower incomes, more historical environmental contamination, and higher crime rates, that contribute to health disparities such as higher incidence of asthma, unintentional injury, and diabetes, among other health outcomes. These are the types of neighborhoods the HNEF aims to target. The results of the HIA are intended to help define the health-related metrics of the HNEF as well as to inform interested developers and potential investors about the anticipated social and economic changes that could result from HNEF (and by association any TOD) supported projects.

TRANSIT ORIENTED DEVELOPMENT (TOD)

TOD is a type of development that includes a mixture of housing, office, retail, and other amenities integrated into walkable neighborhoods that are accessible by quality public transportation. In addition to helping reduce congestion, increase housing choices and meet the growing demographic preference for transit proximity, TOD has potential public health benefits.

To assess potential impacts of the proposed TOD projects on neighborhood health, the HIA identified through a stakeholder driven process the following focus areas:

Walkability/ Active Transport	Safety from Crime	Economic Opportunity	Displacement/ Gentrification
Affordable Housing	Green Housing	Social Cohesion	Green Space
Access to Healthy Affordable Food	Safety from Traffic	Air Quality	Environmental Contamination

These focus areas, called pathways, can affect health outcomes and chronic conditions such as obesity, stress, mental health, cardiovascular disease, respiratory disease, injuries, and premature

mortality. The assessment of the TOD projects revealed relevant and feasible methods to obtain data sources, which can serve as a model for future HNEF development proposals. Therefore, this HIA , as a resource for the HNEF, summarizes major findings, isolates relevant health-related metrics, provides methodologies for how to model or predict future health impacts from land-use decisions, and offers specific recommendations to improve each health determinant through TOD development.

By conducting an analysis on three proposed TOD projects cumulatively, this HIA finds that, based on several assumptions, these TOD projects would have an overall positive public health impact:

Walkability / Active Transport

Create a more walkable environment, increase access to destinations, and improve State of Place score

Safety from Crime

Reduce crime by bringing well-lit mixed-used developments and new commuters, residents, and employees to the area

Food Access

Increase the area's access to healthy affordable foods

Air Quality

Increase air pollution with the increased traffic

Safety from Traffic

Increase traffic by bringing more people into the area

Affordable Housing

Add new income-restricted affordable units

Gentrification /Displacement

Possible risk of displacement particularly with low-income or cost-burdened households

Economic Opportunity

Expand economic opportunity by creating temporary jobs and permanent new jobs in a transit-accessible location

Green Housing

Add new green housing units

Green Space

Add trees, green and public space

Social Cohesion

Add space for social interactions

Environmental Contamination

Remediation and mitigation of opportunities for environmental exposures should be conducted to prevent future environmental exposures to residents, workers, and visitors, although proper remediation may actually decrease opportunities for exposure.

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Walkability / Active Transport

RECOMMENDATIONS

Promote density, mixed land-use, availability of destinations and amenities, short distances to transit, bicycle and pedestrian accommodations, and lower ratios of on- and off-street parking into the development design.

POTENTIAL HEALTH IMPACTS

Physical activity, mental health, chronic disease, obesity

Safety from Crime

RECOMMENDATIONS

Incorporate Crime Prevention through Environmental Design (CPTED) strategies into the development design.

Encourage developers to be aware of internal and external pathways/connections to other destinations, particularly for routes to a transit station.

POTENTIAL HEALTH IMPACTS

Injury, physical activity, mental health, real and perceived safety

Food Access

RECOMMENDATIONS

Encourage expanding access to healthy food resources that offer a wide range of affordable goods within walking distance, particularly in areas with low access.

POTENTIAL HEALTH IMPACTS

Nutrition, chronic disease, obesity

Safety from Traffic

RECOMMENDATIONS

Support developments that promote a Complete Streets approach to accommodate safe bicycle, pedestrian and transit trip-making for the new residential and/or commercial development.

Encourage a context-sensitive approach for proposed roadway improvements so that new or reconstructed roads are designed with narrow travel lanes and for slower vehicular speeds.

POTENTIAL HEALTH IMPACTS

Injury, air quality, real and perceived safety

Economic Opportunity

RECOMMENDATIONS

Require or encourage a measure similar to the Boston Redevelopment Authority's Boston Residents Construction Employment Program so that developments result in temporary, and possibly full-time, employment opportunities for residents in the impacted neighborhood.

Encourage the creation of jobs through projects that offer some match to existing education levels or occupational skills of residents in the impacted neighborhood; conversely, encourage the inclusion of job training components of developments in order to assist residents to build skills and take advantage of nearby job opportunities.

POTENTIAL HEALTH IMPACTS

Economic stability

Affordable Housing

RECOMMENDATIONS

Support developments that maintain a diverse housing stock, including affordable income-restricted housing units when appropriate.

POTENTIAL HEALTH IMPACTS

Economic stability

Green Housing

RECOMMENDATIONS

Encourage green housing with particular attention to affordability and indoor air quality.

POTENTIAL HEALTH IMPACTS

Exposure to environmental contaminants, chronic disease

Social Cohesion

RECOMMENDATIONS

Promote developments that seek to enhance the social impact of the public spaces and social/cultural events.

Consider how displacement may dissolve and therefore have a negative impact on existing social networks.

POTENTIAL HEALTH IMPACTS

Mental health

Green Space

RECOMMENDATIONS

Promote expansion, upkeep, and access to green spaces as well as urban trees.

POTENTIAL HEALTH IMPACTS

Physical activity, mental health, air quality

Gentrification /Displacement

RECOMMENDATIONS

Promote the use of anti-displacement strategies between communities and developers such as Community Benefits Agreements.

Promote local regulatory changes that support anti-displacement strategies such as inclusionary zoning, condominium conversion ordinances, and one for one affordable housing replacement ordinances.

POTENTIAL HEALTH IMPACTS

Mental health, economic stability

Air Quality

RECOMMENDATIONS

Encourage air quality analyses associated with increased motor vehicle use. Consider background concentrations.

Monitor air quality during construction and after the development is complete to ensure that air quality levels do not degrade beyond projected levels.

Consider mitigation measures such as reinforcing the bicycle/pedestrian infrastructure or using construction equipment with diesel retrofits.

POTENTIAL HEALTH IMPACTS

Air quality, asthma, other respiratory diseases, and cardiovascular disease

Environmental Contamination

RECOMMENDATIONS

Mitigate or remediate environmental contamination to reduce potential for exposure for residents living and/or working near the site as well as for site workers involved in remediation and construction.

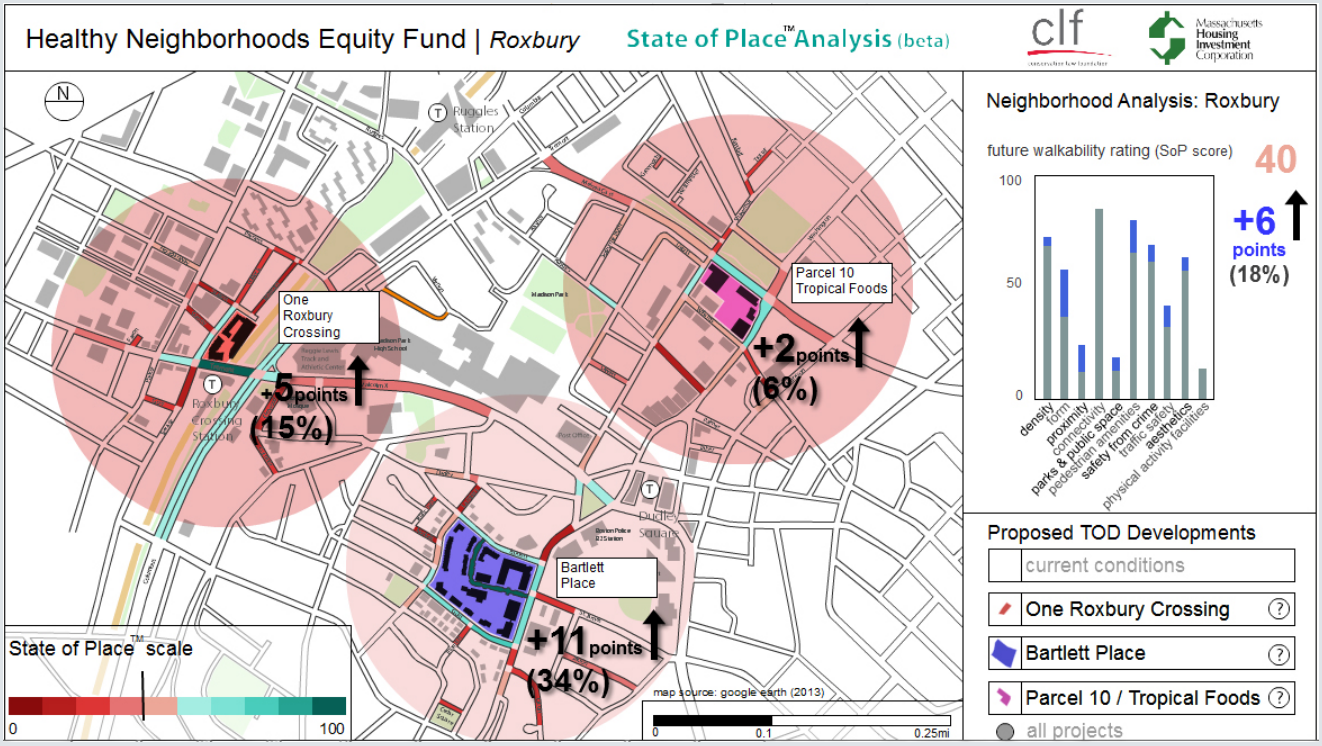
POTENTIAL HEALTH IMPACTS

Exposure to environmental contaminants, childhood blood lead levels, asthma, other relevant chronic diseases

Health Impact Assessment aims to describe the potential health effects of plans, policies, or programs by using a combination of procedures, methods and tools to judge the potential effects on the health of a population and the distribution of these effects within it . This HIA was conducted by MAPC in partnership with the Massachusetts Department of Public Health and is considered a "rapid" HIA.

STATE OF PLACE is a place-making and walkability diagnostic tool used in this HIA. This tool quantifies walkability and its economic impact based on over 165 on-the-ground built environment features that are empirically linked to walkability which are subsequently grouped into ten urban design principles (sub-indices). The State of Place index is positively linked to significant economic premiums, including office and retail rents, retail revenues, and residential for-sale and rental values as revealed in a recent Brookings Institution study.

According to the State of Place projections, the three TOD projects will improve walkability in the study area by approximately 18%. The new State of Place score is estimated to be 40 with the form, proximity, and pedestrian amenities sub-indices experiencing the most improvement.



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Acknowledgements: We would like to thank Madison Park Development Corporation, Mission Hill Neighborhood Housing Services, Nuestra Comunidad Development Corporation, the City of Boston Health in All Policies Taskforce, Mariela Alfonzo (Founder, State of Place), Lea Susan Ojamaa (MDPH-BCHAP), Andrea Pinzon-Marquardt (MDPH-BCHAP), Martha Steele (MDPH-BEH), Jan Sullivan (MDPH-BEH), Mariana Arcaya (MAPC), Holly St. Clair (MAPC), Tim Reardon (MAPC), Eric Halvorsen (MAPC), Jessica Robertson (MAPC) , Steve Winter (MAPC) Jon Levy (Boston University), Kim Gilhuly (Human Impact Partners). Graphic Design by Jason Fairchild of The Truesdale Group.

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Funded by the Massachusetts Department of Public Health through the Centers for Disease Control's Healthy Community Design Initiative (Health Impact Assessment to Foster Healthy Community Design Cooperative Agreement)