

RECREATIONAL EQUITY

Socio-ecological Risk Maps.
Charlestown, MA.

Preliminary **Draft** April 3, 2022

Data Source



**boston planning &
development agency**

Studies Copyright



Recreational Landscape

Public Space Needs psf
Existing Green space
Existing Open Space

Case Studies

Mystic Creek Park
Bunker Hill
Charlestown Navy Yard

Environmental Impact Studies

Acoustical
Sun/Shade
Wind/Aeration
Carbon Footprint (Trade Value)
Flood Risk FEMA Firmette

Existing Vulnerabilities

Transportation
Social Equity, Displacement
Population Density Imbalances
Historic District
Public Waterfront Access
Public Private Projects

Charlestown Neighborhood Need for Open Space

The Boston Civic Design Commission (BCDC) is evaluating preliminary designs pitched for buildings F&M in Charlestown. The massive development complex warrants proportionate comprehensive Socio-Ecological habitat impact studies.

With a tree-forward understanding, the BCDC is reviewing recent preliminary research.

Community values of affordable healthful habitat depends on essential equitable open space and greening factors of mental health per capita.

The proposed development area is currently one of the coolest in Charlestown. Removal of trees will expand and compound local heat island challenges.

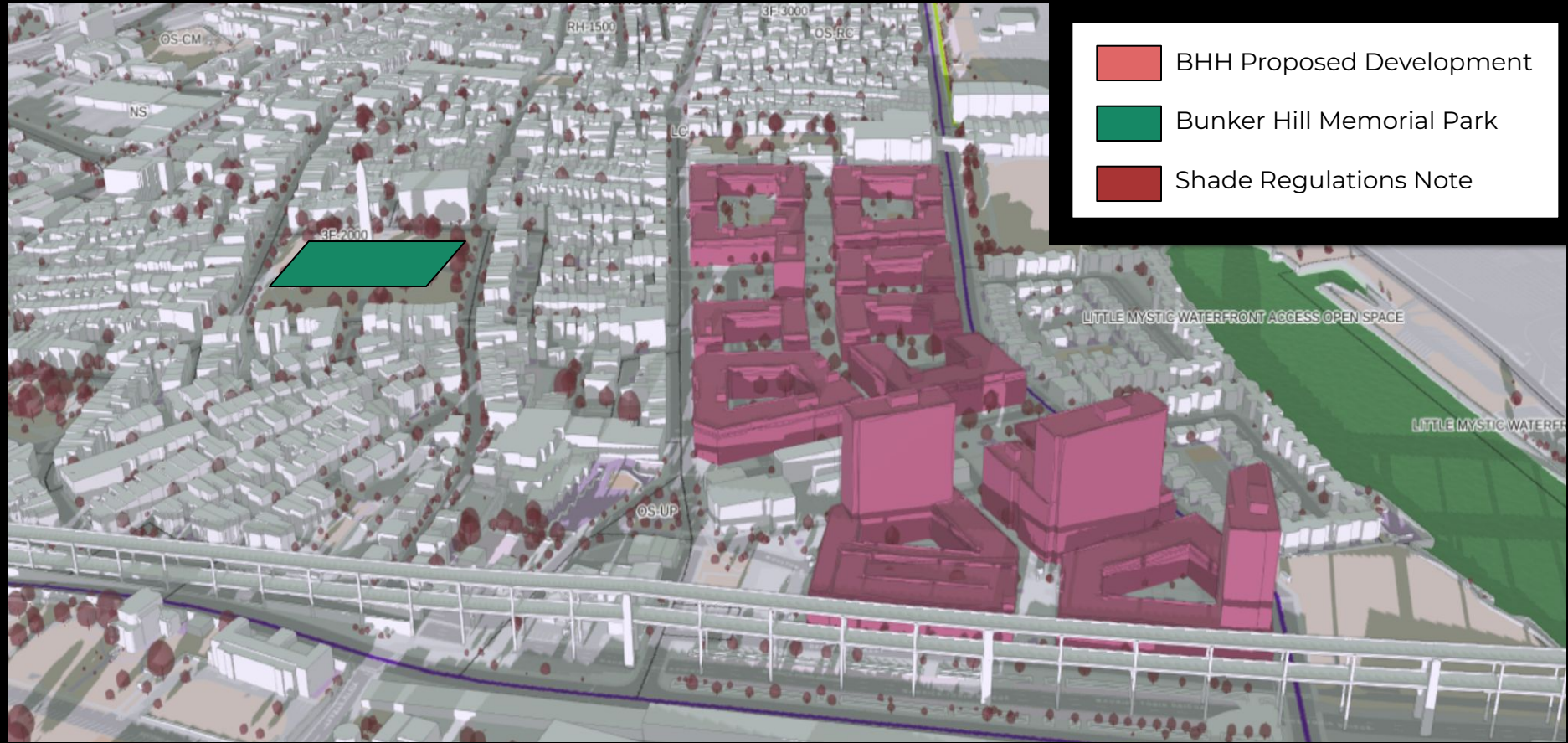
The Charlestown overall canopy is one of Boston's smallest, a tree desert. Canopies provide a balanced healthful place for generations. They mitigate extreme weather conditions such as heatwaves, flash floods, wind and erosion. Leaves lower the prevalence of asthma. Roots and crowns provide structural integrity.

Government data shows the Effective Maximum Dwelling for the development area is already stressed and underserved. It is socio-economically vulnerable, prone to floods, severe heat islands, surrounded by heat blocks with industrial debris and deficient public transportation. Area traffic congestion will be a serious problem affecting all of Charlestown.

Socio-Ecological Healthful Equity Notes



Bunker Hill Housing Development
The largest stand of mature, full canopied trees.
10% of our tree canopy (27 Acres)



Bunker Hill Housing Redevelopment Proposal
Boston Redevelopment Authority

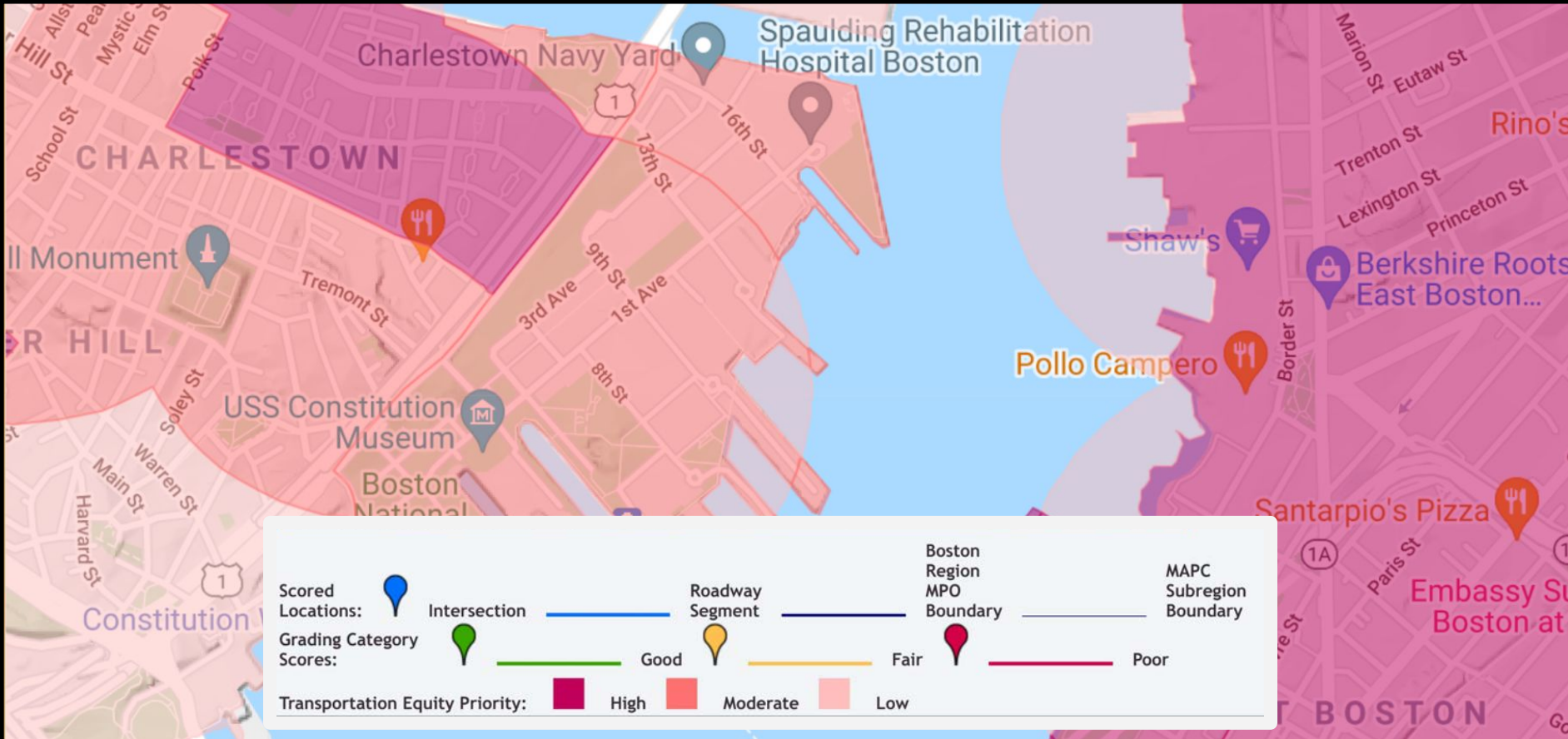
Climate extremes impact falls hardest on those with the least capacity to adapt.

Open and Green space equity is imbalanced in this area.

**Urgent Master Planning / Environmental Impact / Social Studies
Overdue**



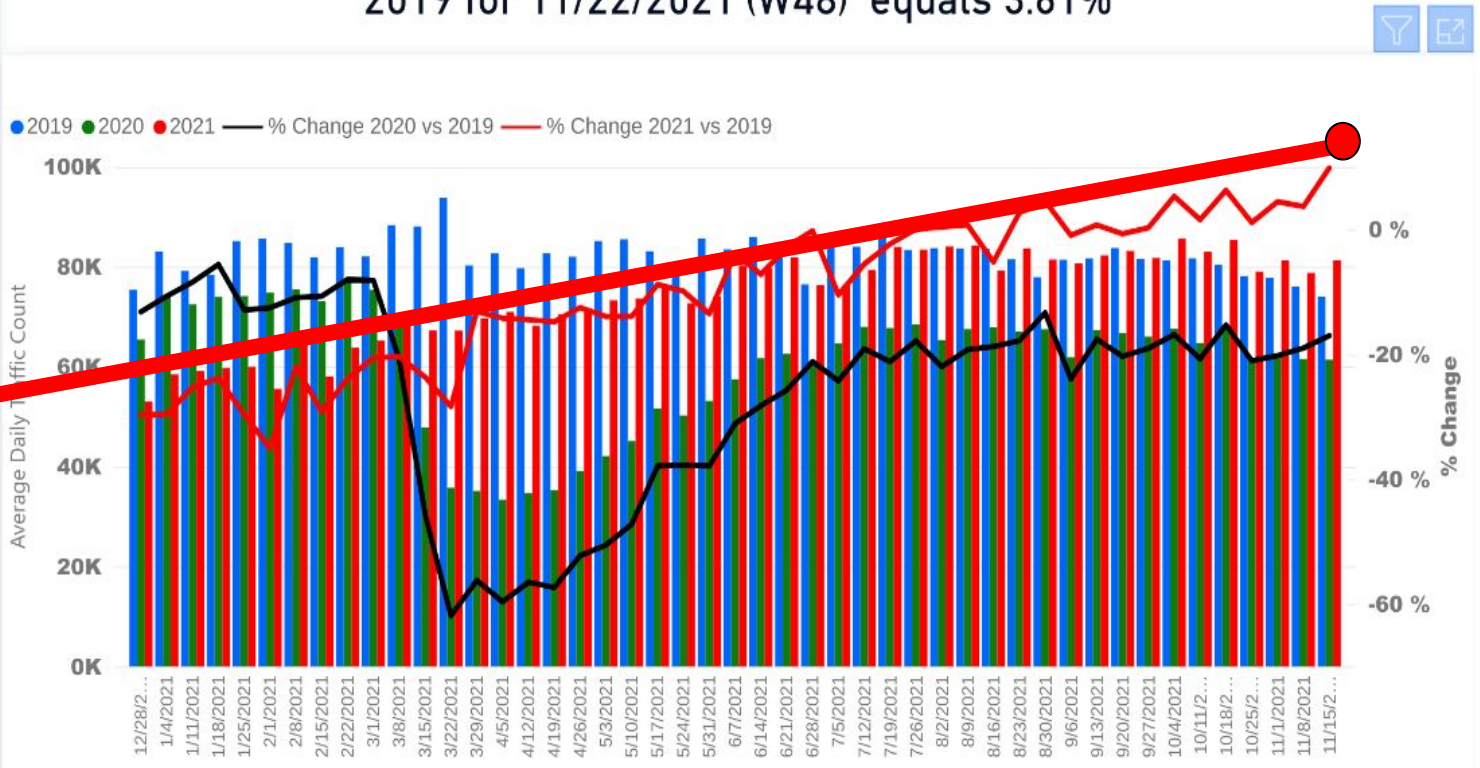
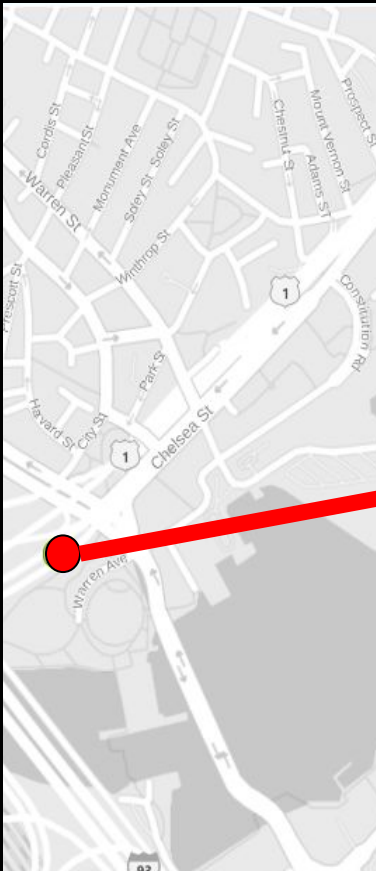
Effective Maximum Dwelling Units Per Acre
US Census / Quality of Life.



Transportation Equity Mitigation High Priority

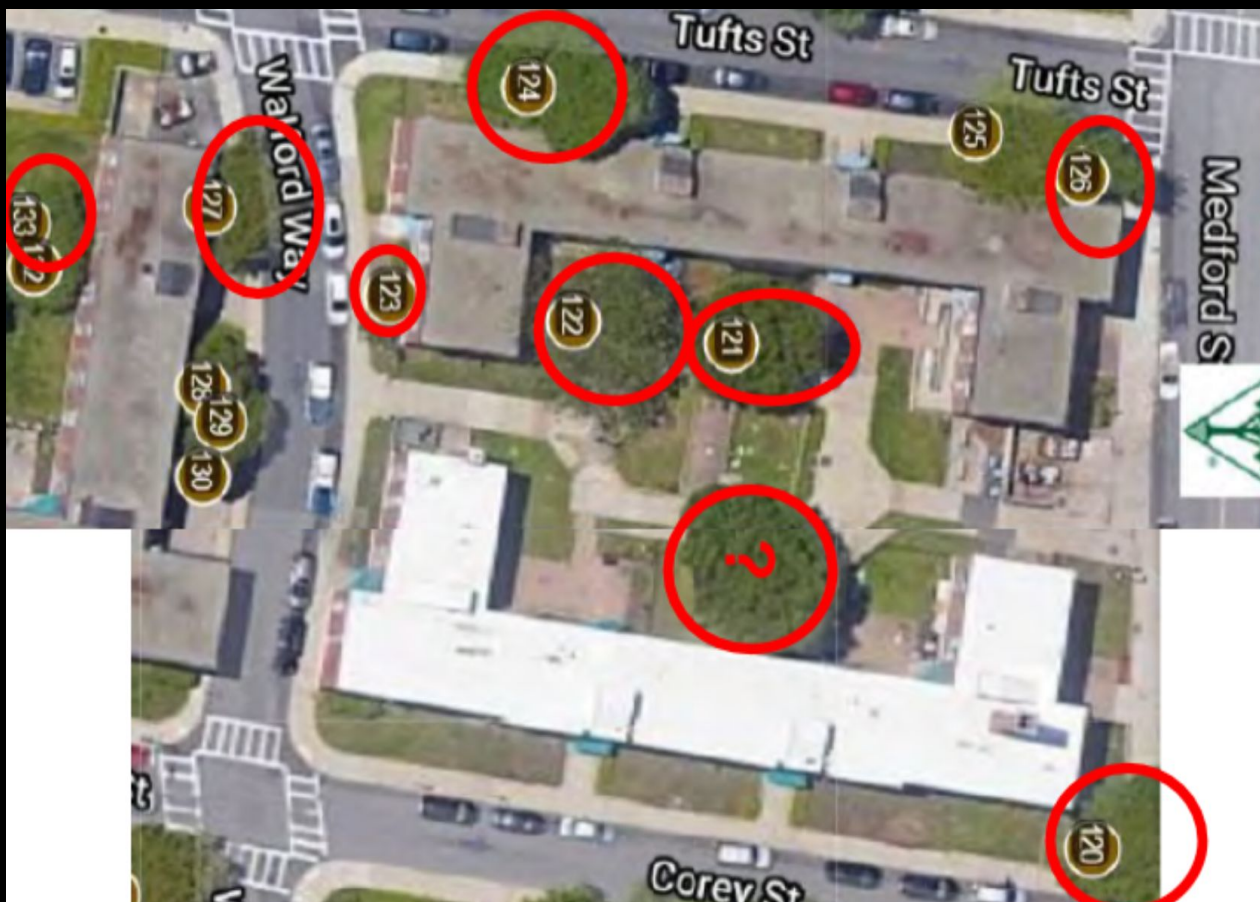
Current public transportation access deficiency

District 6 - US 1 Boston Tobin (Station ID: AET15): The % change vs 2019 for 11/22/2021 (W48) equals 3.61%

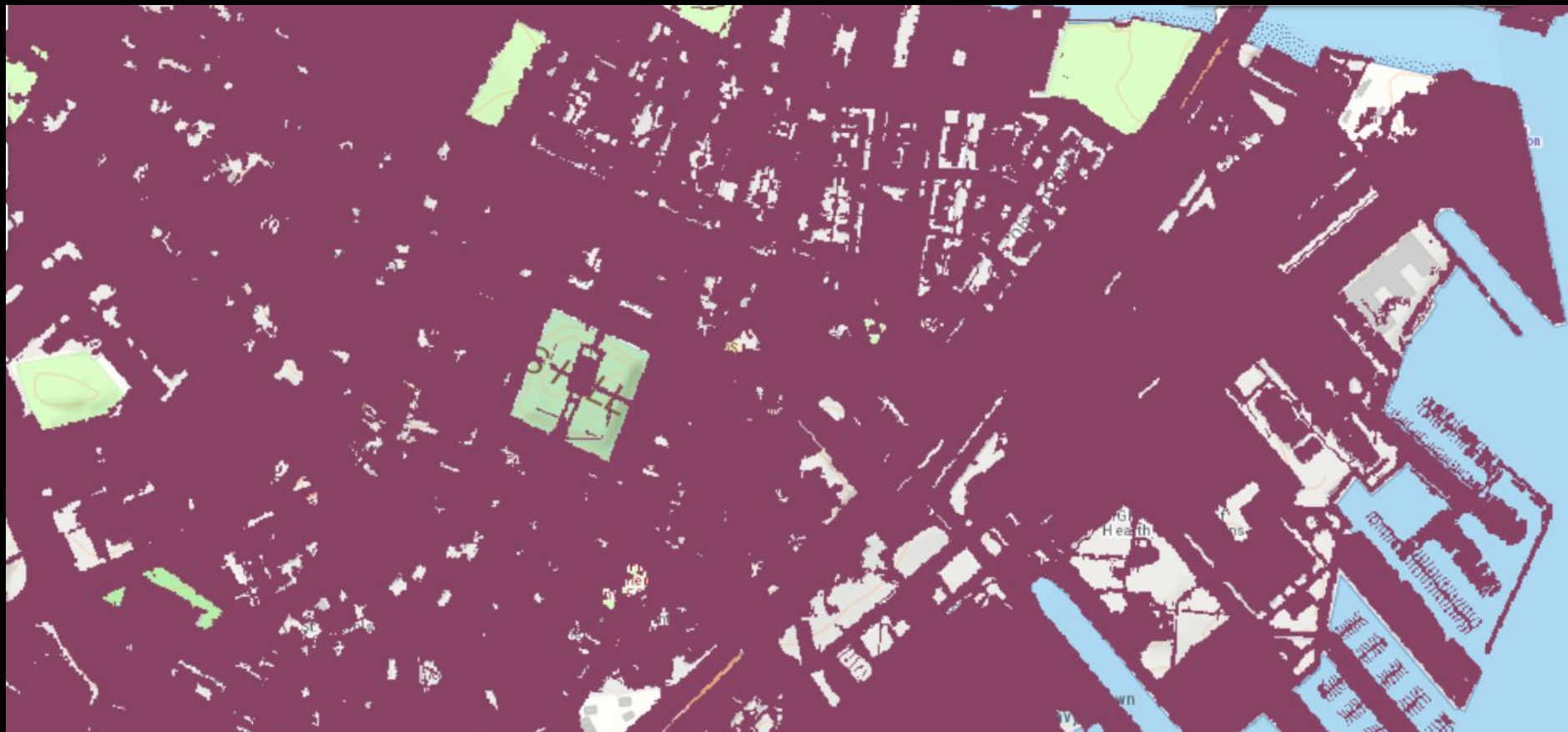


Transportation Vulnerability Compounding
Increase of Charlestown bound Traffic 3 Year 3.61%

- **Improve existing recreational places and transportation in proportion to the new development population.**
- **Addition of Green parks vs. 'open space'.**
- **A comprehensive master plan is vital to alleviate long term tragedies.**
- **These risks will be radically compounded by increased population.**



Hundreds of trees slated for removal significantly depletes vital canopy



Impermeable Surface
A metric of overdevelopment



Flood Risk Footprint

Flooding, Extreme Heat, Social Vulnerability



Battle of Bunker Hill - Historic Points + Areas

**The Battle Spanned from the Monument to the Mystic Shoreline.
Archeological Data Missing (not assessed prior to development)**

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