

Baltimore's Urban Voids: Creating Safer Communities Through Ecological Design

CONTEXT

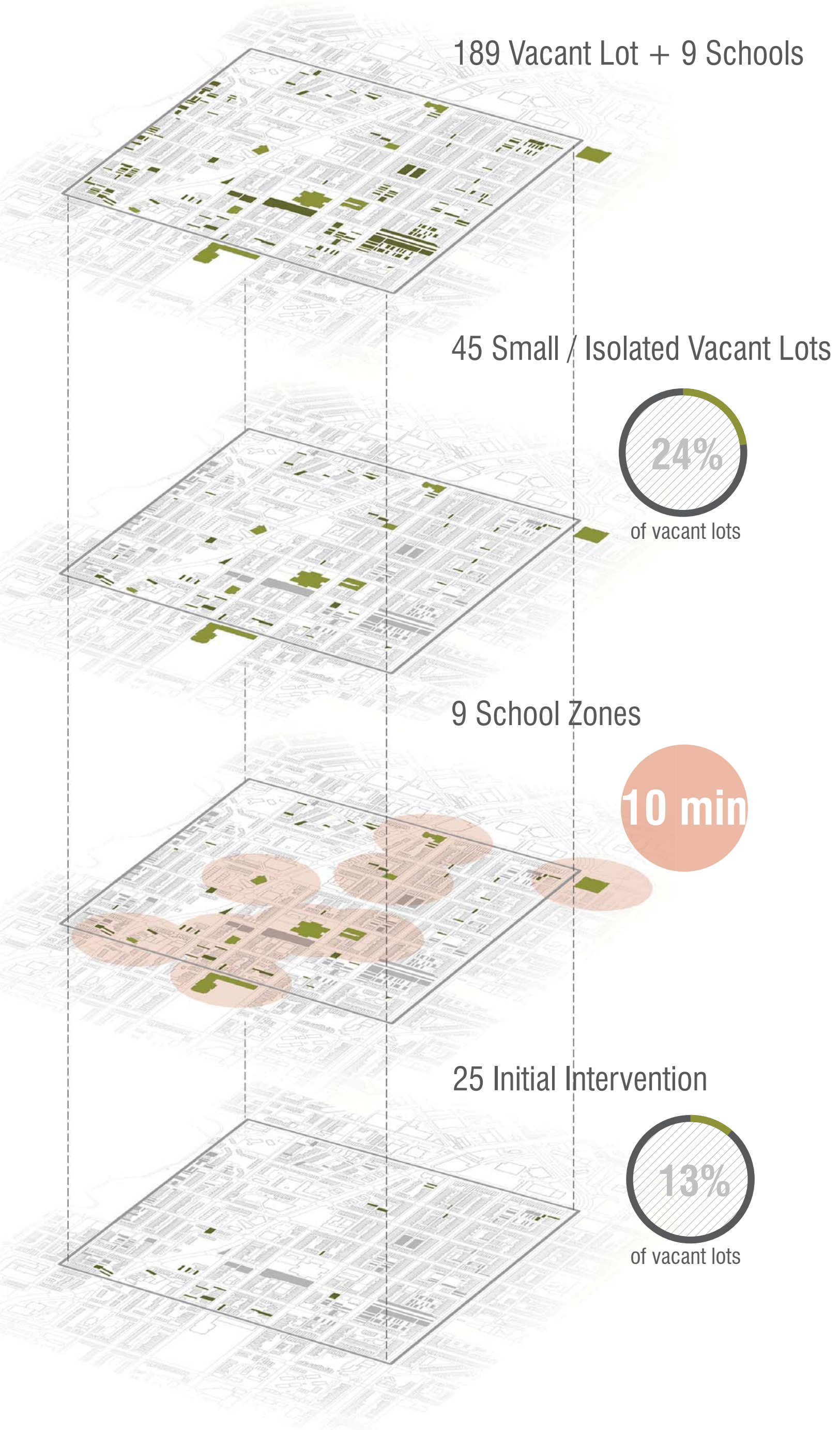


CONCEPT

Small Voids within Baltimore's infrastructure are perceived as highly dangerous spaces. The fear of these spaces lead to nuisance activity. Through careful planning and the implementation of ecological services, the community can be reintroduced to these vacant areas. Promoting controlled interaction with these spaces can help diminish the probability of crime and improve the ecology of the Oliver Neighborhood. Finding the linchpins within the societal system is essential. Implementing constructive placemaking and familiar cultural elements starting around the local school zones can help improve these zones. Schools are a major hub within neighborhoods and the improvement of these areas initially can have a larger impact on the safety and well-being of the Oliver community. Extensive studies show that simple, green improvement of these urban voids directly influence the well-being of a community and crime. The improvement of these small voids within the Oliver neighborhood is an opportunity to improve Oliver's ecology while relating it to tangible, social-economic implications. Many urban settings are impacted by a diverse array of pollutants. These pollutants are highly concentrated in the subsurface. Some soils are more polluted than others but cost-effective remediation techniques provide opportunities to improve Oliver's soil without exceeding economic means. Soils are the framework of an ecosystem. By improving these soils, the improvement of the urban ecological system occurs leading to an increase of soil biota. This abundance of biota will attract a diverse range of avian species and pollinators. Green intervention throughout sites within the Oliver neighborhood enhances the well-being of the community while decreasing crime rates. This replicated intervening has the opportunity to traverse multiple scales improving Oliver as a whole while ecologically and socially connecting with its surrounding context.

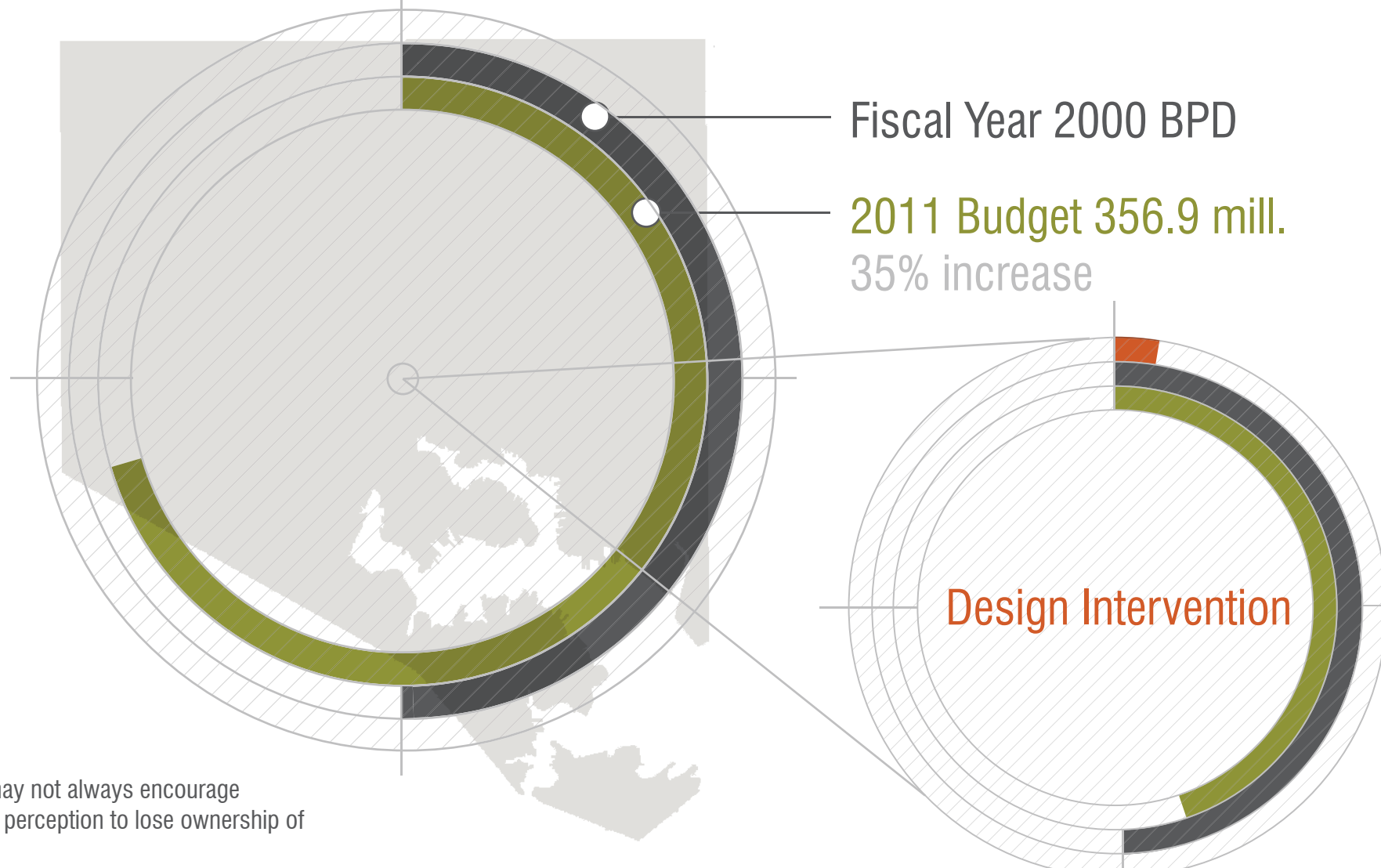
Vacant Lot Suitability Analysis

The Oliver neighborhood has the opportunity to become an ecological, safe zone within Baltimore City. Using "school zones" as pressure points to begin improvement of void spaces can initiate the amendment of larger social and ecological issues.



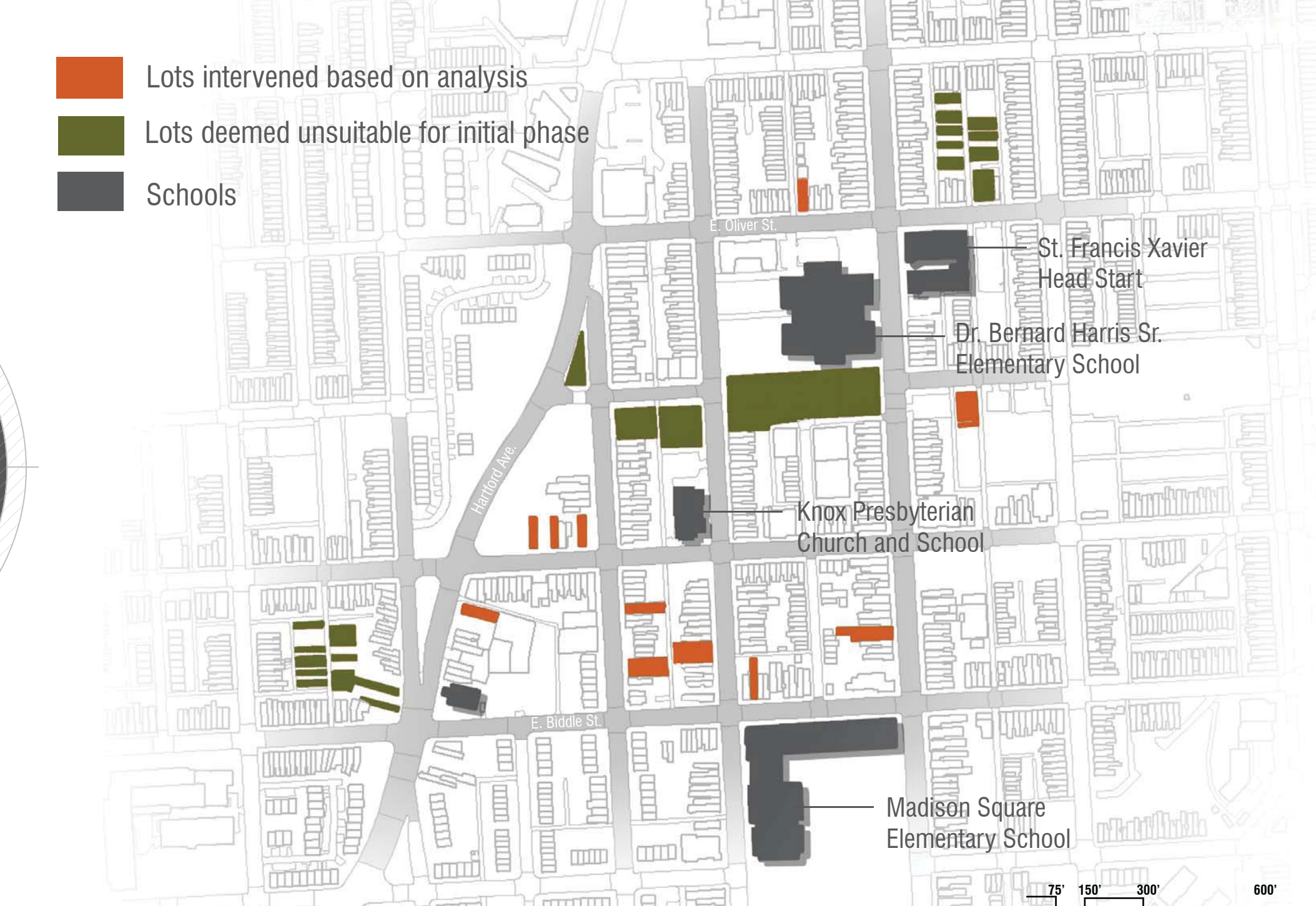
Cost Benefit Analysis

Baltimore Police Department budget increased substantially due to crime increase severely inhibiting Baltimore amenities like summer programs and swimming pools.



Masterplan

Initial implementation zones are established by the vacant lot suitability analysis. Studies show that green improvement of vacant lots subsequently decrease crime and stress levels. This improvement harbors opportunities for a safer neighborhood through ecological restorative practices.



A Matter of Perception | Crime Criteria

A space that is small / isolated, unorganized, unkempt, and neglected may not always encourage criminal activity but this perception still exists. All it takes is this altered perception to lose ownership of a space and encourage crime.

PROBLEMS

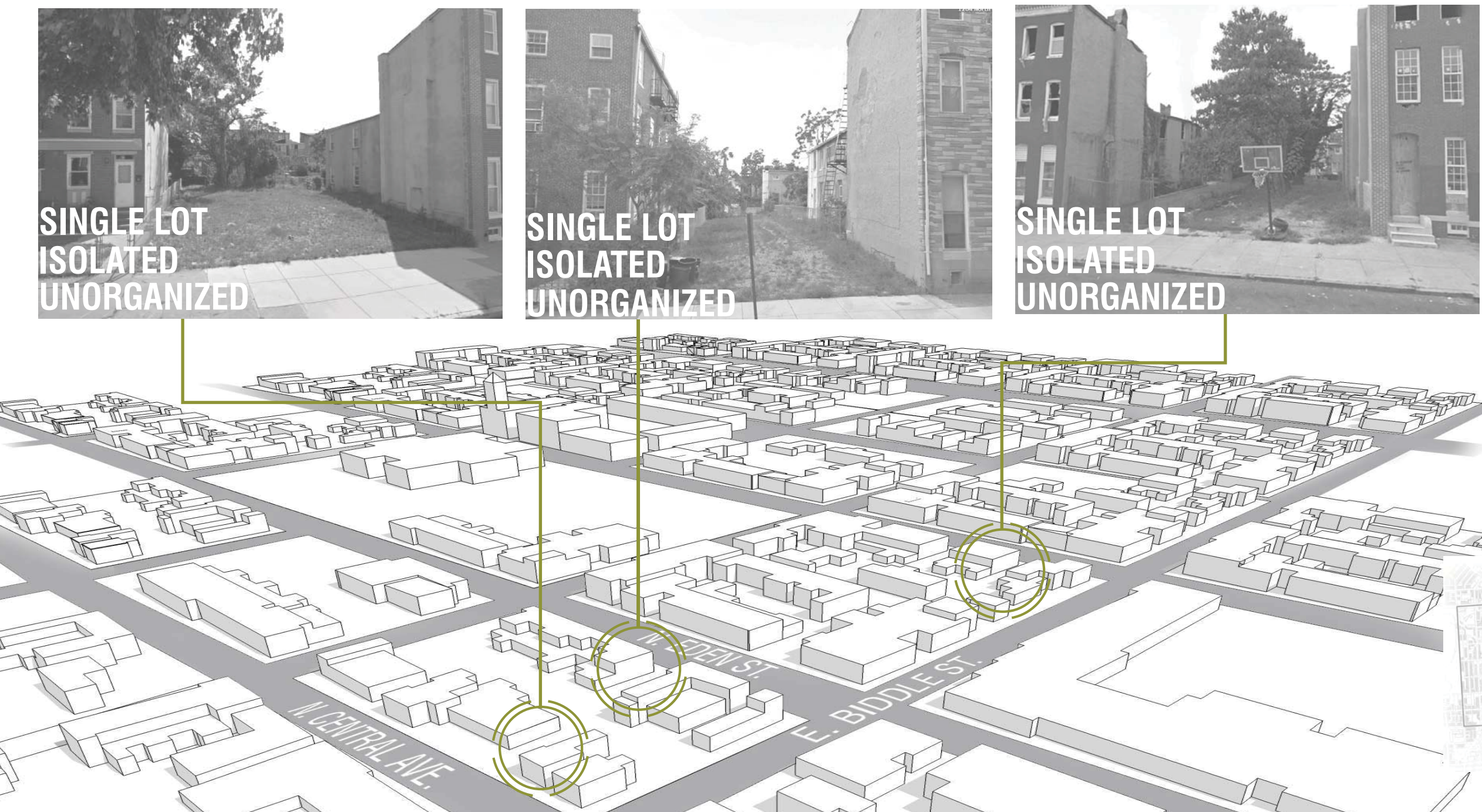
<p>Small / Isolate Lots of Land</p> <ul style="list-style-type: none"> - Small, enclosed spaces lead to a fear of the space. - Lots with little visibility and no clear access / egress induce uncomfortably. 	<p>Unorganized Space</p> <ul style="list-style-type: none"> - Space that has ambiguities of program lose attraction within the community and are susceptible to elicit activity. 	<p>Lack of Maintenance</p> <ul style="list-style-type: none"> - If a space is unkempt, then attraction for the space decreases. A lack of territoriality exists which fosters crime. 	<p>Neglection</p> <ul style="list-style-type: none"> - Once space loses attraction, then it is neglected by the community. Neglection attracts crime.
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SOLUTIONS

<p>Visibility</p> <ul style="list-style-type: none"> - Allowing clear lines of sight to access/ egress points facilitate spaces that are perceived as being safer. 	<p>Organized Program</p> <ul style="list-style-type: none"> - Delineation of program and private vs. public space helps deter elicit activity and crime. 	<p>Territoriality</p> <ul style="list-style-type: none"> - When a space is maintained and a it is cared for, it is perceived as having ownership. This ownership helps alleviate crime. 	<p>Proprietorship</p> <ul style="list-style-type: none"> - A site that exudes placelessness and is unattractive is neglected. Appreciation for a space can inhibit possibilities of crime.
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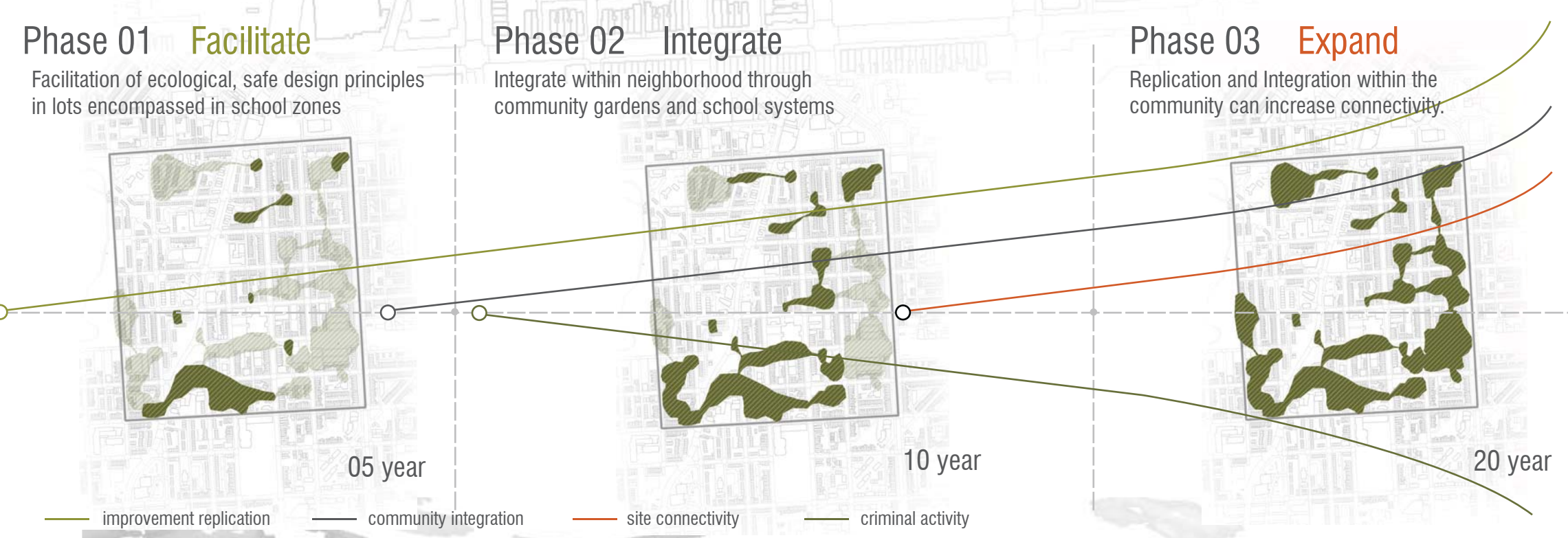
Small / Isolated Lots Characteristics | Nodes for Crime

Many of the existing vacant lots within the neighborhood of Oliver exude characteristics that can alter perception of space leading to increase crime activity.



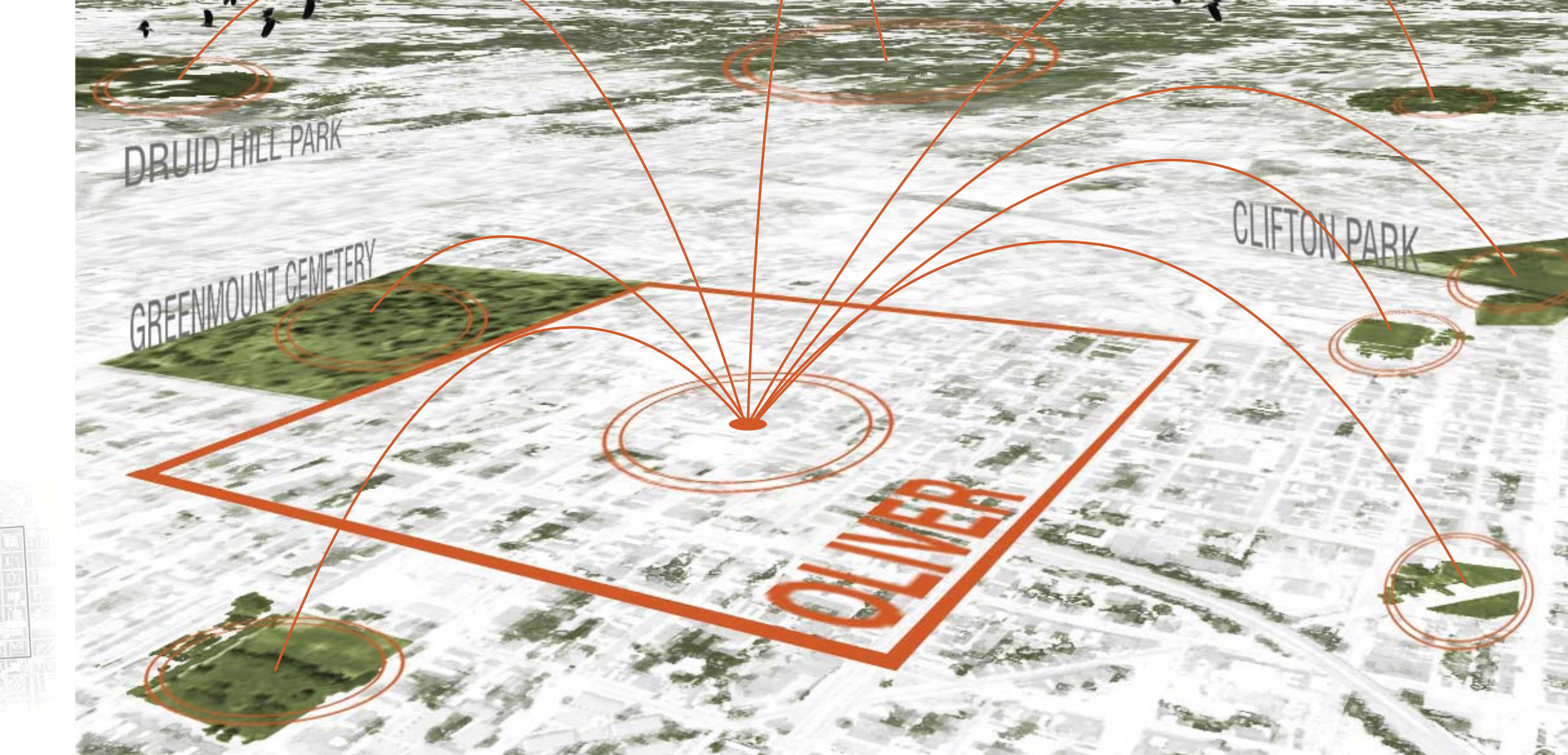
Masterplan Phasing | Ecological, Safe Connections

Initial action for the Oliver neighborhood entails facilitation of ecological design within suitable lots. The improvement of these lots can have larger social and ecological implications.

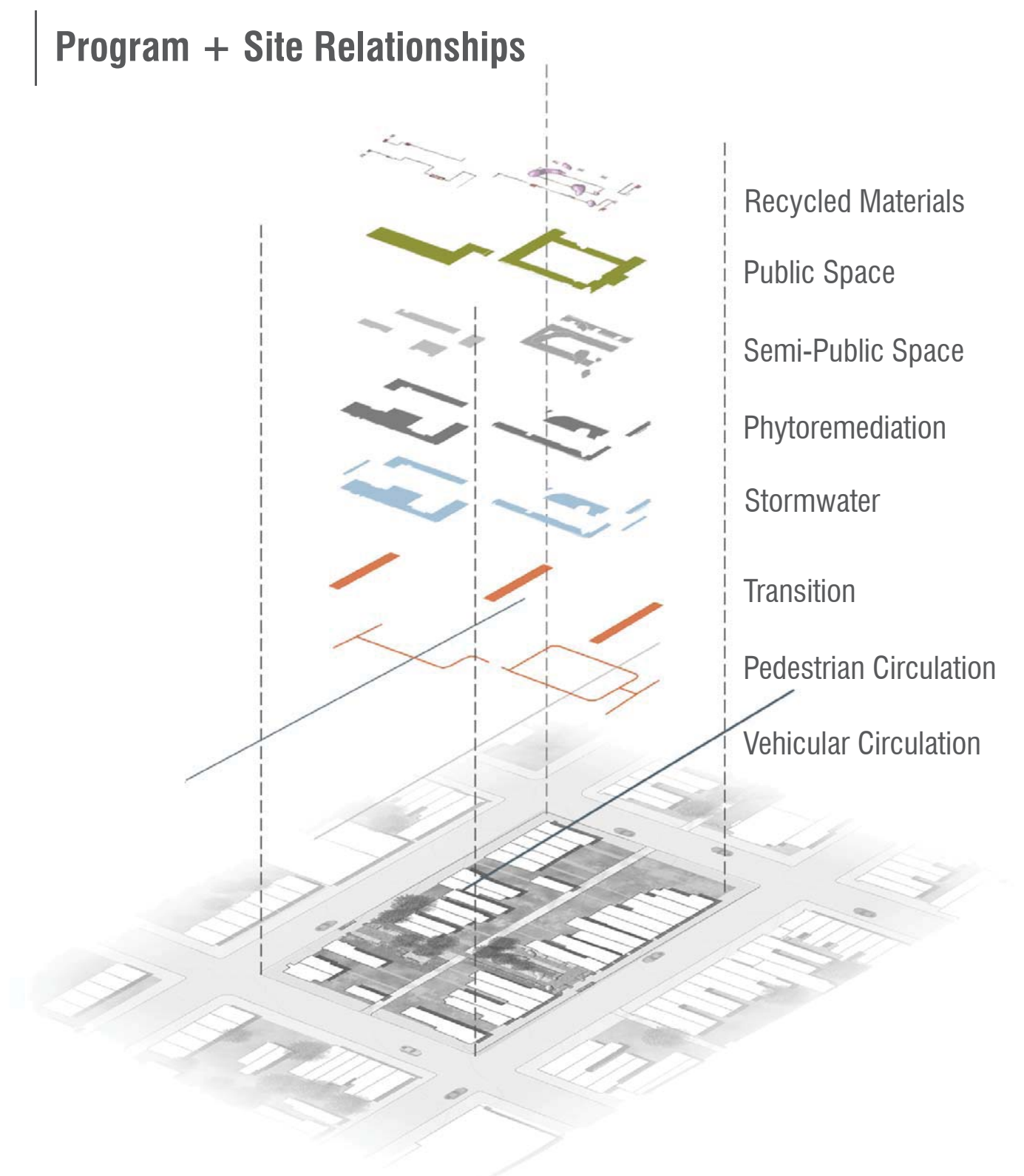
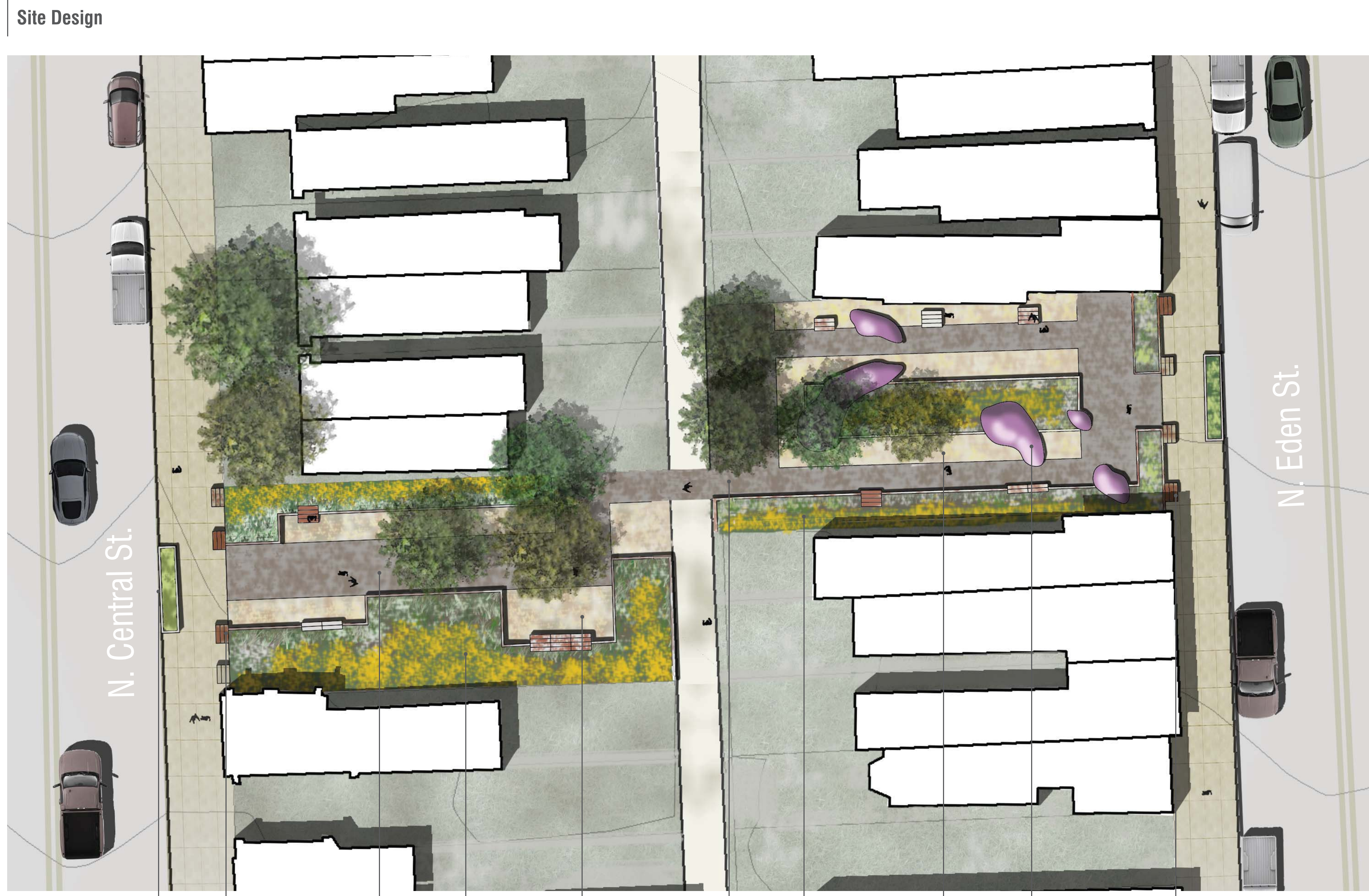
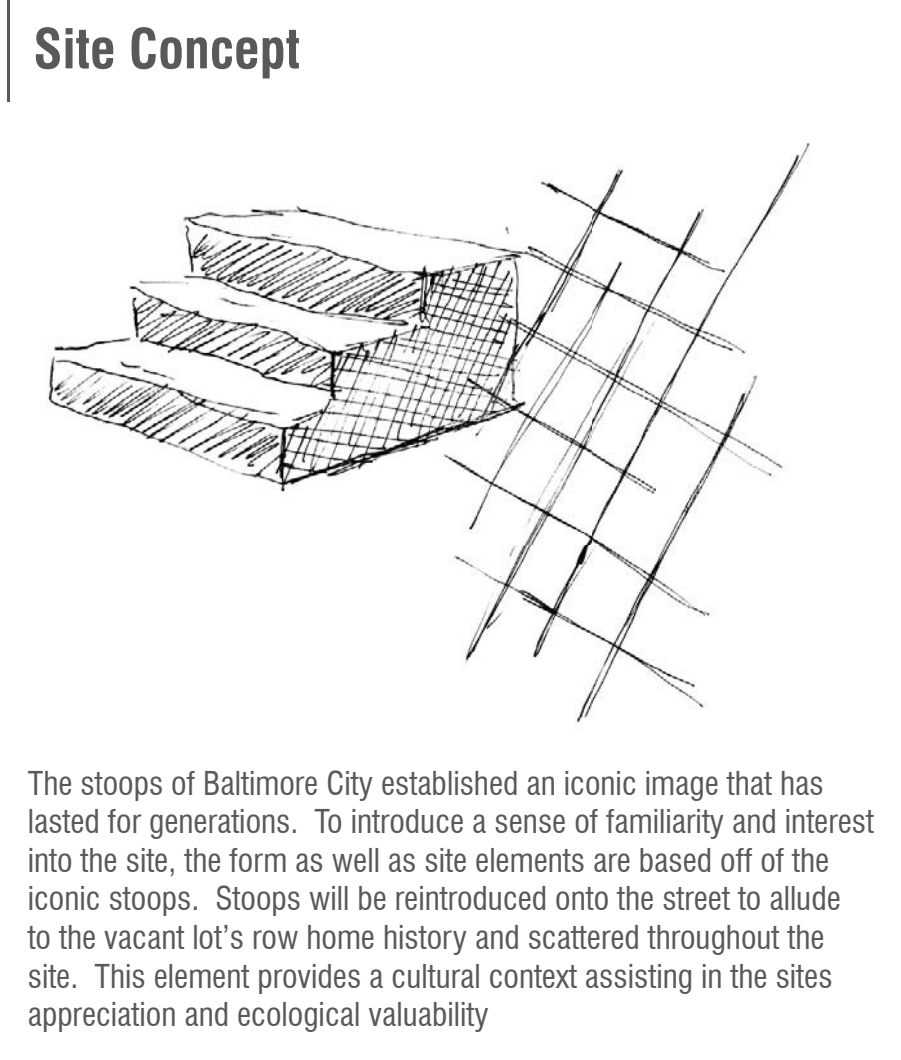
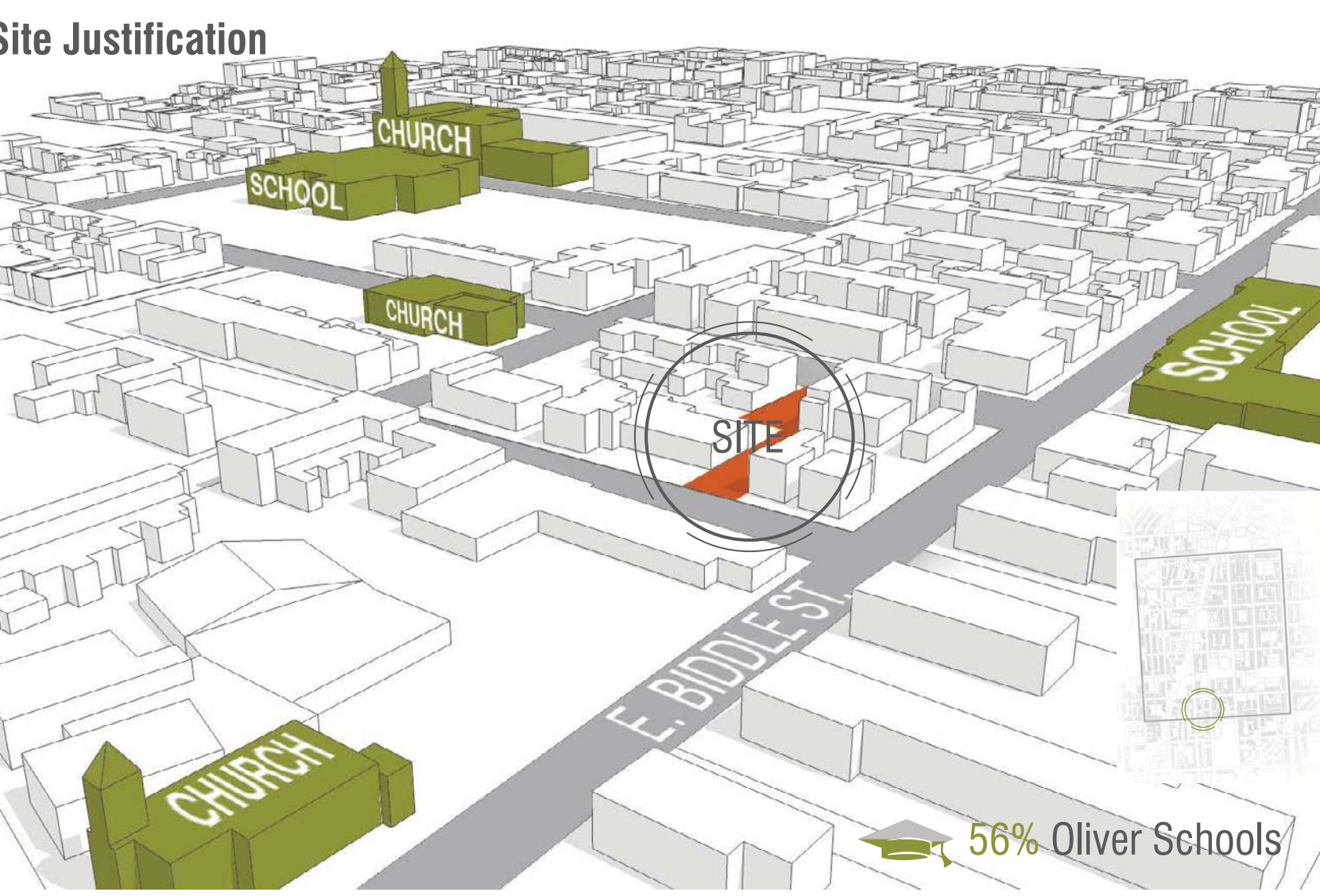


Habitat Connection

The green improvement of Oliver's vacant lands creates the opportunity for habitat connections. BES conclusions state that there are diverse, urban habitats and that they should not be defined as impoverished. These diverse existing and restored habitats can help facilitate an urban ecological mosaic within Baltimore City utilizing the studies of the importance of pollinator and avian species.



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Stormwater Filtration Recycled Stoops Public Space Phytoremediation Semi-Public Space Public Space Phytoremediation Semi-Public Space Playgrounds Recycled Stoops

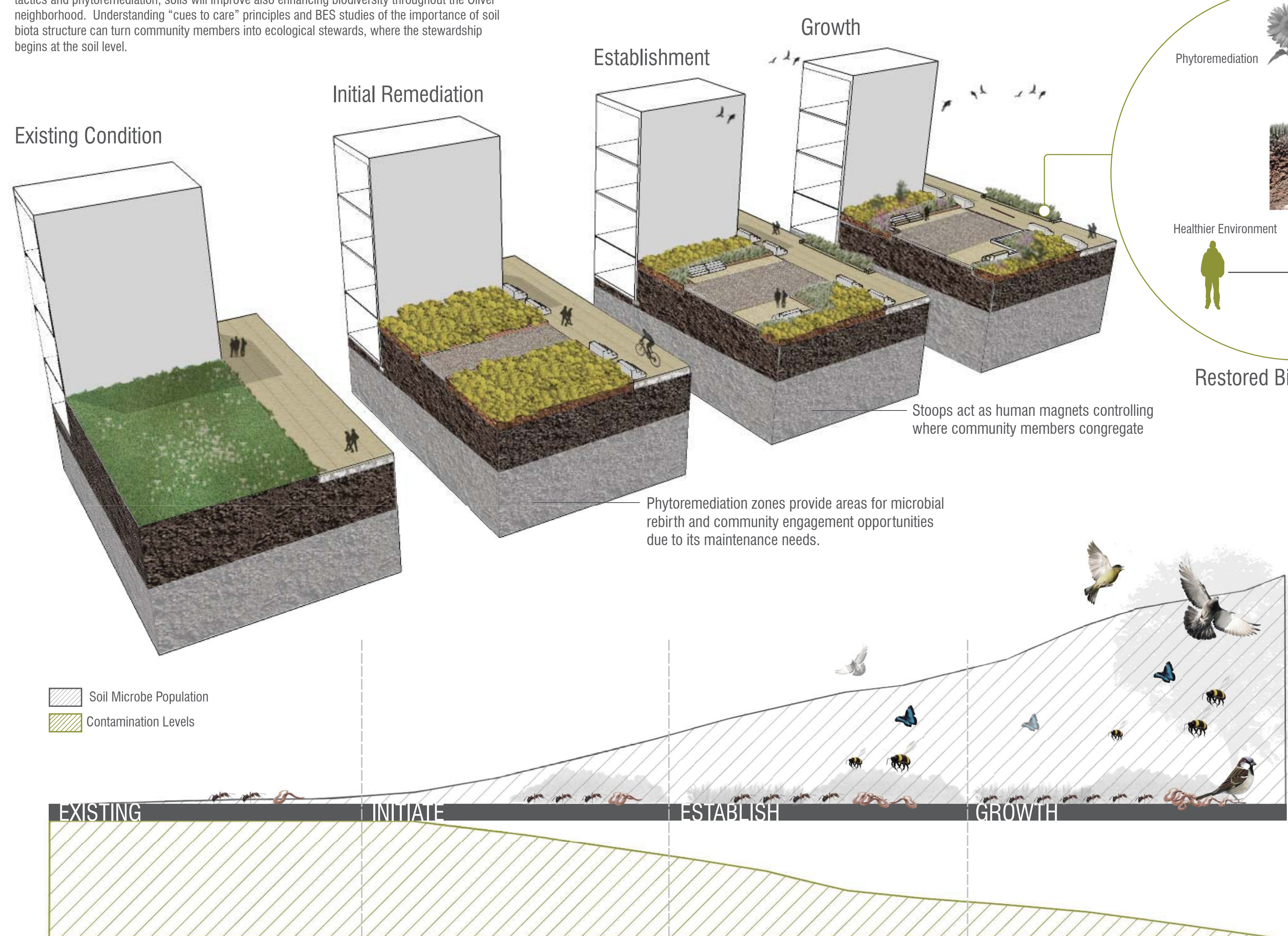


B1 PENNSTATE N. Central St. Filter Sidewalk Stoop Playground Phytoremediation B2 A2 Semi-Public Space Semi-Public Space Stoop Sidewalk Filter N. Eden St. A1

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Site Temporal Phasing

The lots current soil condition is a typical urban soil. Through limited traditional soil remediation tactics and phytoremediation, soils will improve also enhancing biodiversity throughout the Oliver neighborhood. Understanding "cues to care" principles and BES studies of the importance of soil biota structure can turn community members into ecological stewards, where the stewardship begins at the soil level.



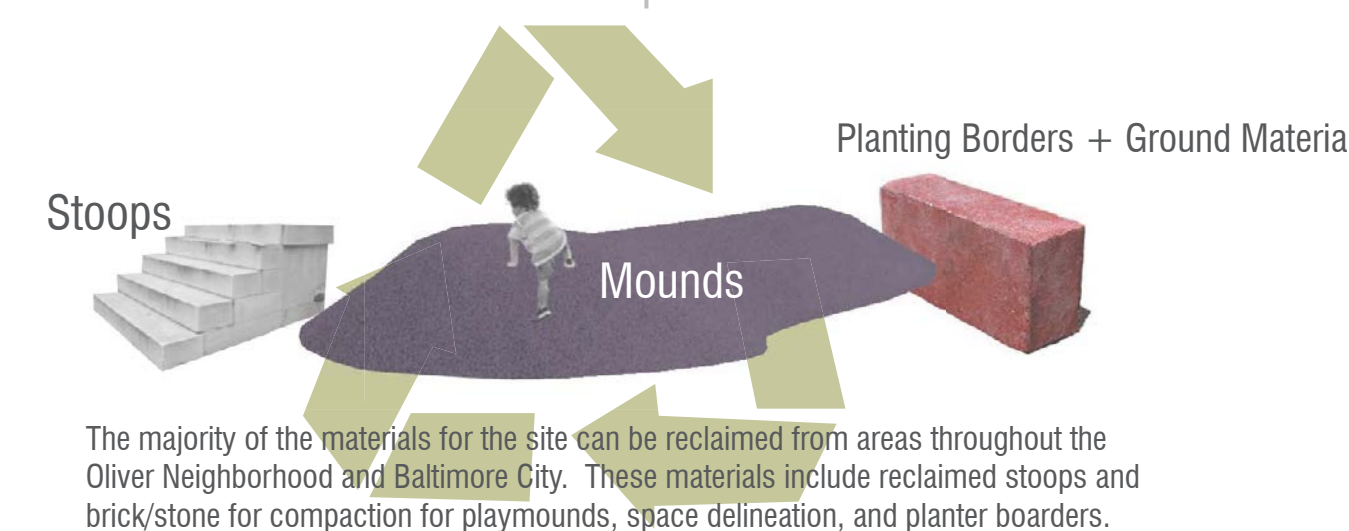
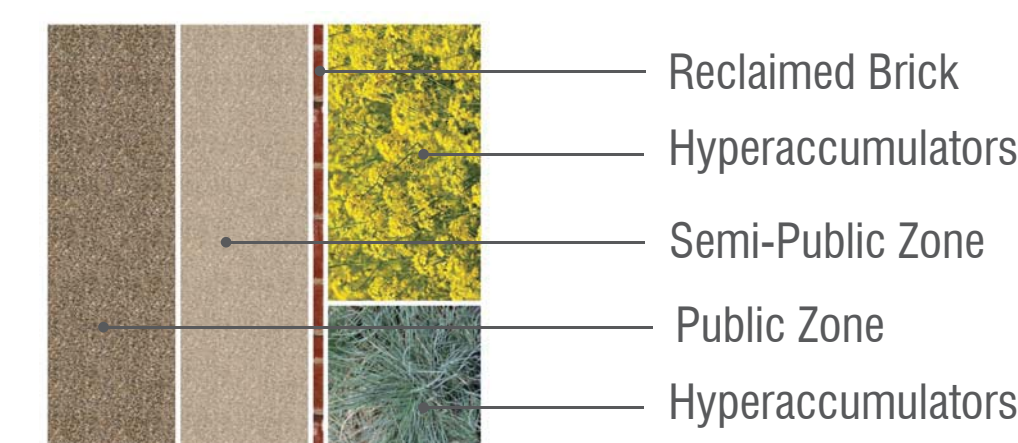
Soil Remediation Comparison | Traditional Soil Removal vs. Phytoremediation

BES studies show that not all urban soils are classified as being disturbed. However, further studies show that contaminations do exist. Thus, traditional soil remediation processes can be coupled with other techniques. Phytoremediation provides cost-effective alternatives that limit landfill waste simultaneously providing ecological habitat.

Type of Remediation	Waste Produced	Price to Remediate Landfill	Price to Remediate Site
 2.5 acres 18" depth	 5,000 tons	\$ 30,000	\$ 580,800
 2.5 acres	 30 tons	\$ 150	\$ 122,512

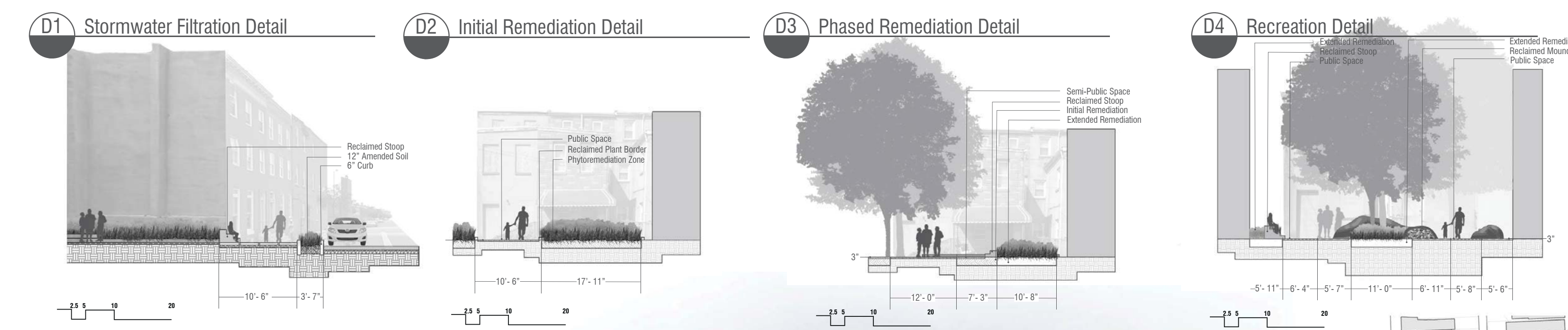
Site Materials

Surface Material Relation



-
-
-
-
-
-
- .20 acres**

Site Details



Site Perspective | Recreational Space

A view from N. Eden St. portraying a site being utilized as both a gathering and recreational space. The brightly colored mounds and stoops reintroduced onto the street can act as site identifiers by passersby.



Site Perspective | Gathering Space

A view from N. Central Ave. highlighting a gathering space. Each gathering/recreational space will utilize these recycled stoops to create "cues" for territoriality. Also, each site incorporates a stormwater filtration system harnessing stormwater from the street and controlling citizens from mid-block crossing.



Site Perspective | Detail of Gathering Space

A detailed perspective of the gathering space adjacent to N. Central Ave. Each site will have delineation of public vs. semi-public space and clear views across the site. These gathering spaces evoke characteristics of respite and tranquility similar to pocket parks and contemplation gardens.

