# KATHARYN HURD

## DESIGN PORTFOLIO

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# WILLETS POINT CAMPUS

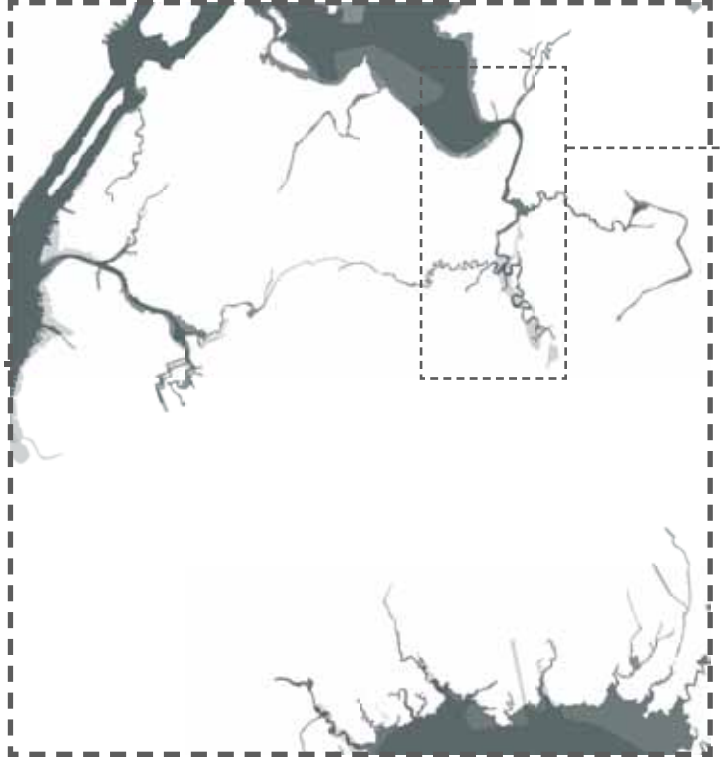
## QUEENS, NEW YORK, NY

ELEMENTS OF URBAN DESIGN STUDIO
HARVARD GRADUATE SCHOOL OF DESIGN
in collaboration with Neelima Panoli

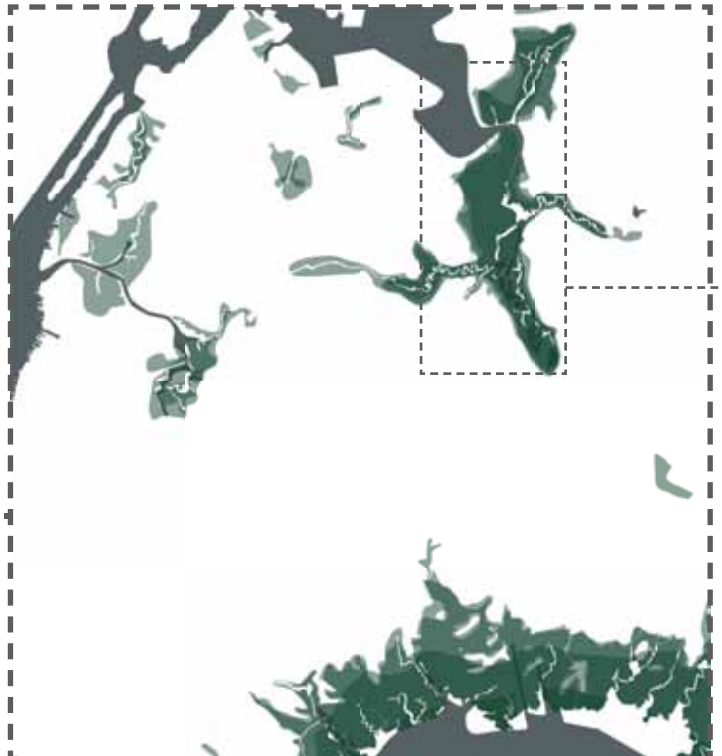
**Willets Point is a heavily engineered site, which has historically accumulated high impact programs and infrastructure including land fills, fair sites, sports stadia, rail yards, large scale surface parking, and massive highways, which burden and strangle the sensitive estuary and marsh ecology. New York City's attitude toward Queens as a logistics center to support Manhattan has led to environmental degradation, flooding, and massive transportation inefficiencies. As New York prepares for both growth and climate change, these issues become increasingly important.**

**To fulfill the academic campus program for this project, the complex site conditions must be addressed by releasing Willets Point to re-enliven the ecology, economy, and community of this region. The urban design interventions occur along a larger water and open space system to create a framework that integrates the four zones of water, marsh, open space, and built fabric into the city.**

WILLETS POINT CAMPUS



CHANGES IN QUEENS WATER LINE (ABOVE) AND MARSH ECOLOGY (BELOW) SINCE 1844

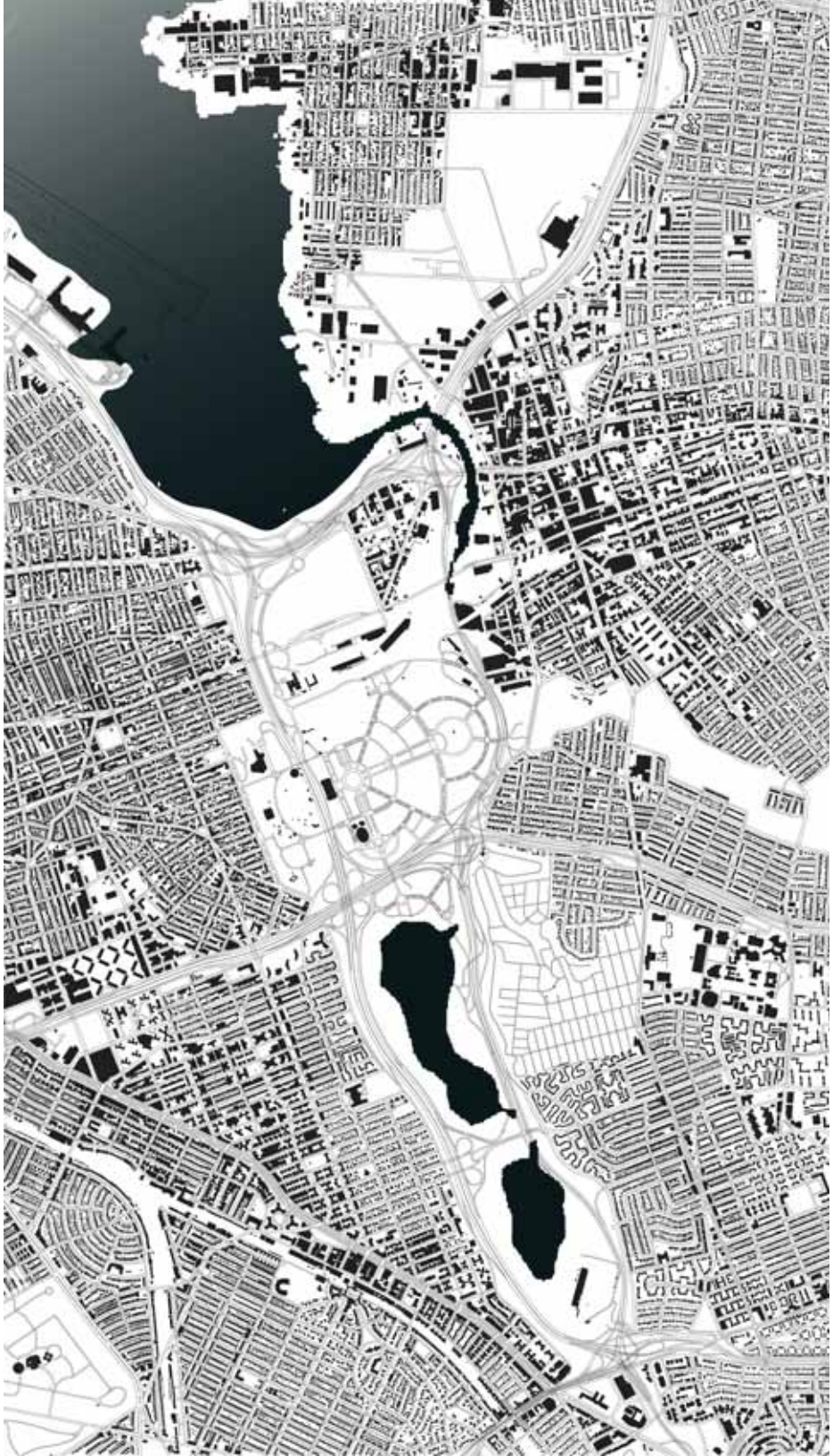


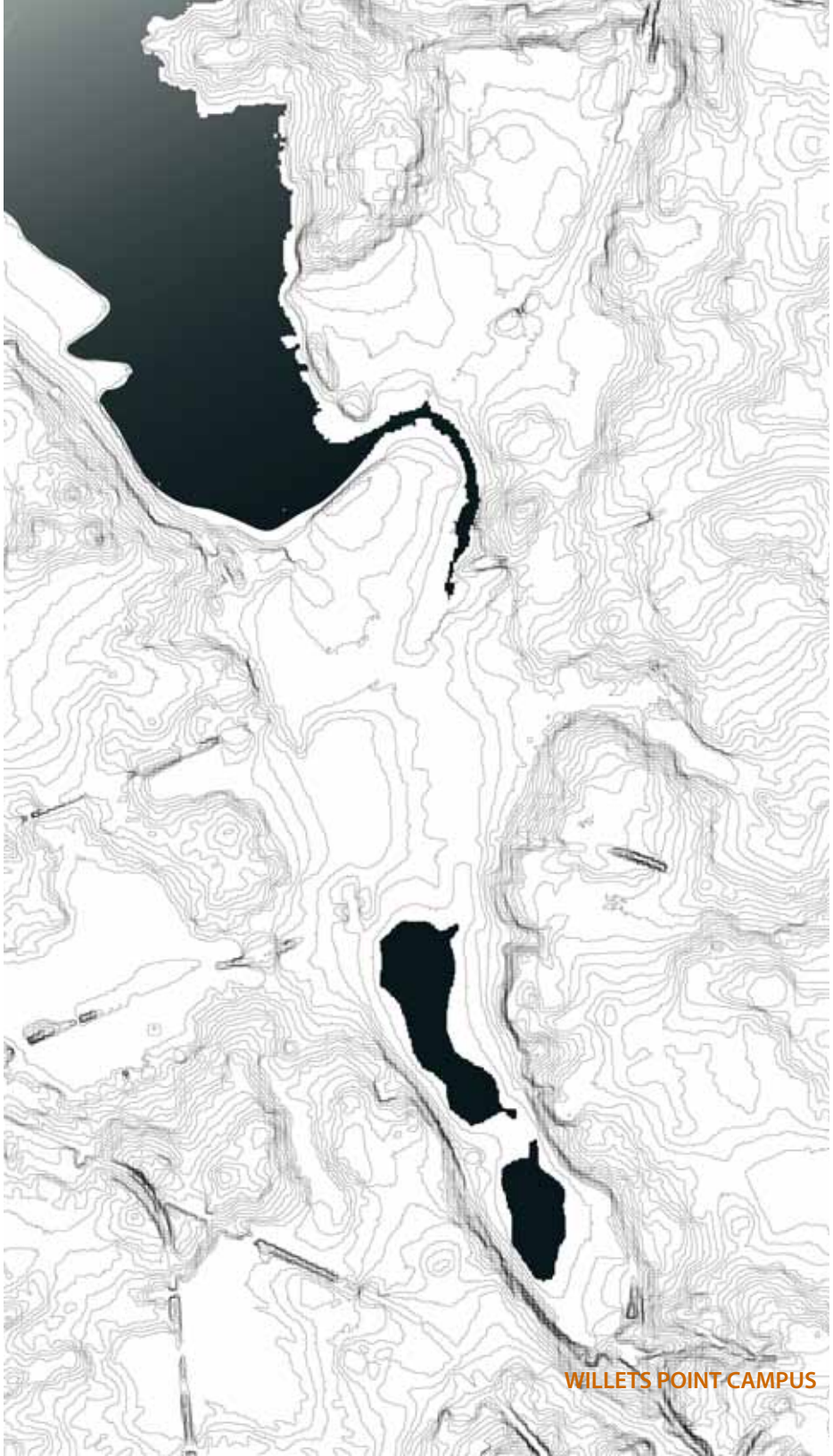
## EXISTING CONDITIONS



**Willets Point is home to heavily programmed large stadia in addition to a sprawling informal auto-focused land use. The Point has no paved streets or other municipal infrastructure to support the auto body shops or any other future buildings. In order to prepare the site for development, New York City would need to invest enormous amounts of resources just to lay the groundwork. As the sea level rises, the costs go up dramatically. Therefore, the academic campus program for Willets Point makes more sense upstream in Flushing Meadows Park. where it is more protected from flooding and can connect into existing urban fabric.**

## WILLETS POINT CAMPUS





## STRATEGY

### A ECOLOGY & HYDROLOGY

**By undamming and daylighting the Flushing River, Willets Point can both reclaim ecological value and start to reverse the environmental degradation historically imposed on the site. Restoring a functioning hydrological system in this tidal estuary will help protect Queens from the dangers of climate change and sea level rise.**

### B ISLAND PROGRAMMING

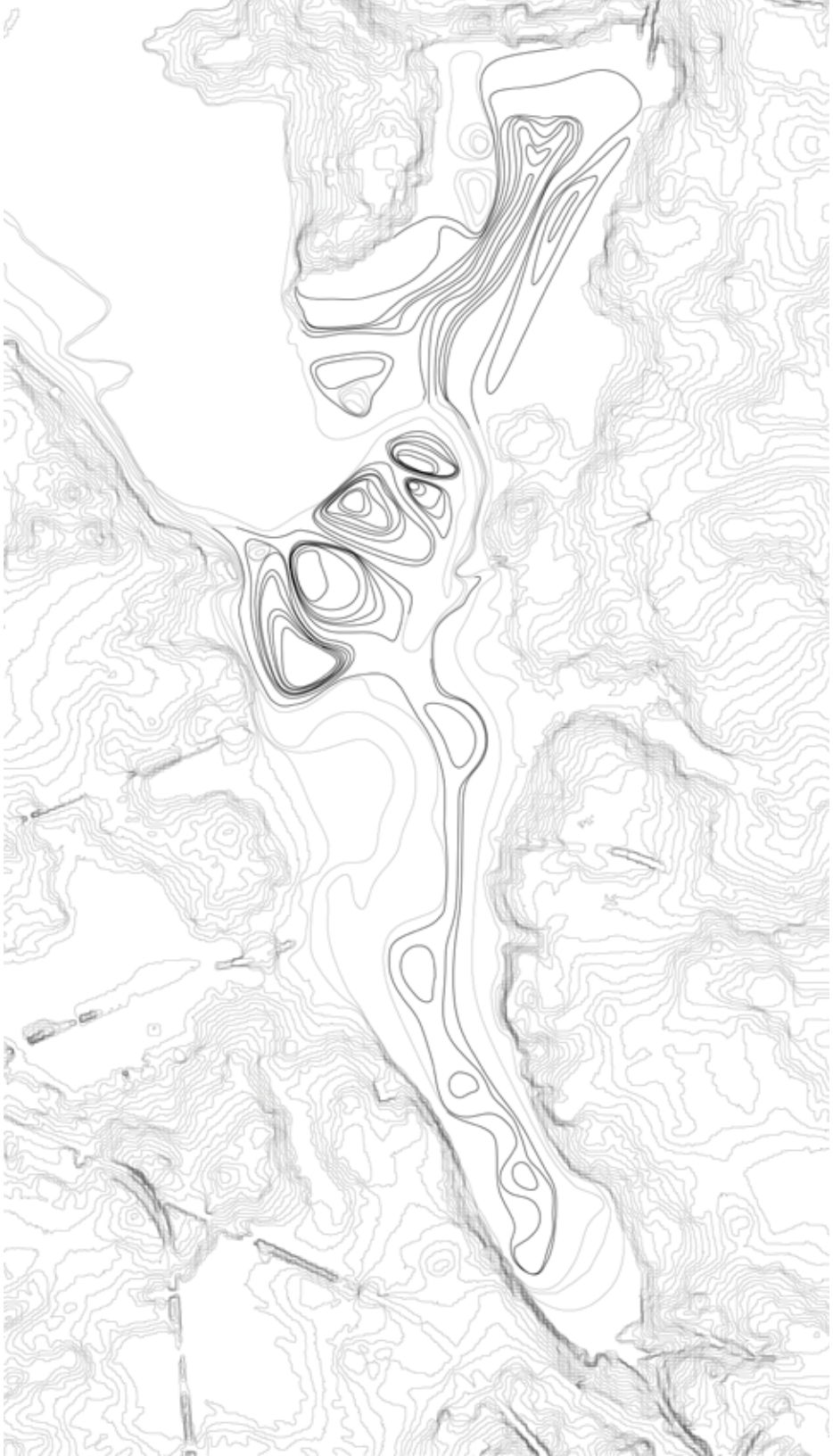
**The islands created from Willets Point preserve Citi Field and the structurally crucial attachment points for the highway infrastructure. In addition, restoration areas, protected from the heavy traffic above, become wetland and recreation zones.**

### C AUTO USE RELOCATION

**Auto uses are relocated North of Willets Point to vacant manufacturing-zoned land where they will retain their crucial highway proximity but also gain the benefit of municipal infrastructure.**

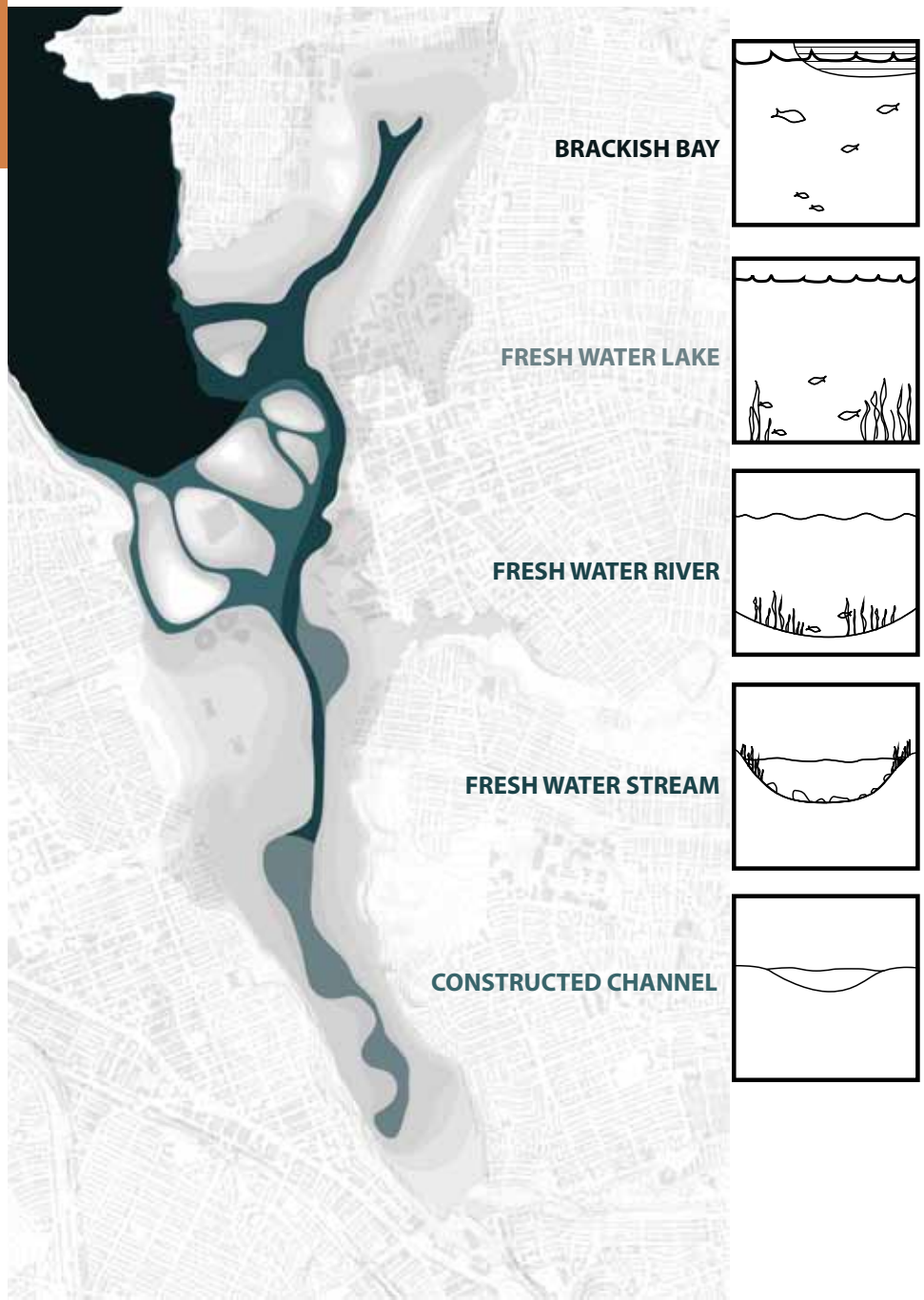
### D CAMPUS PLACEMENT

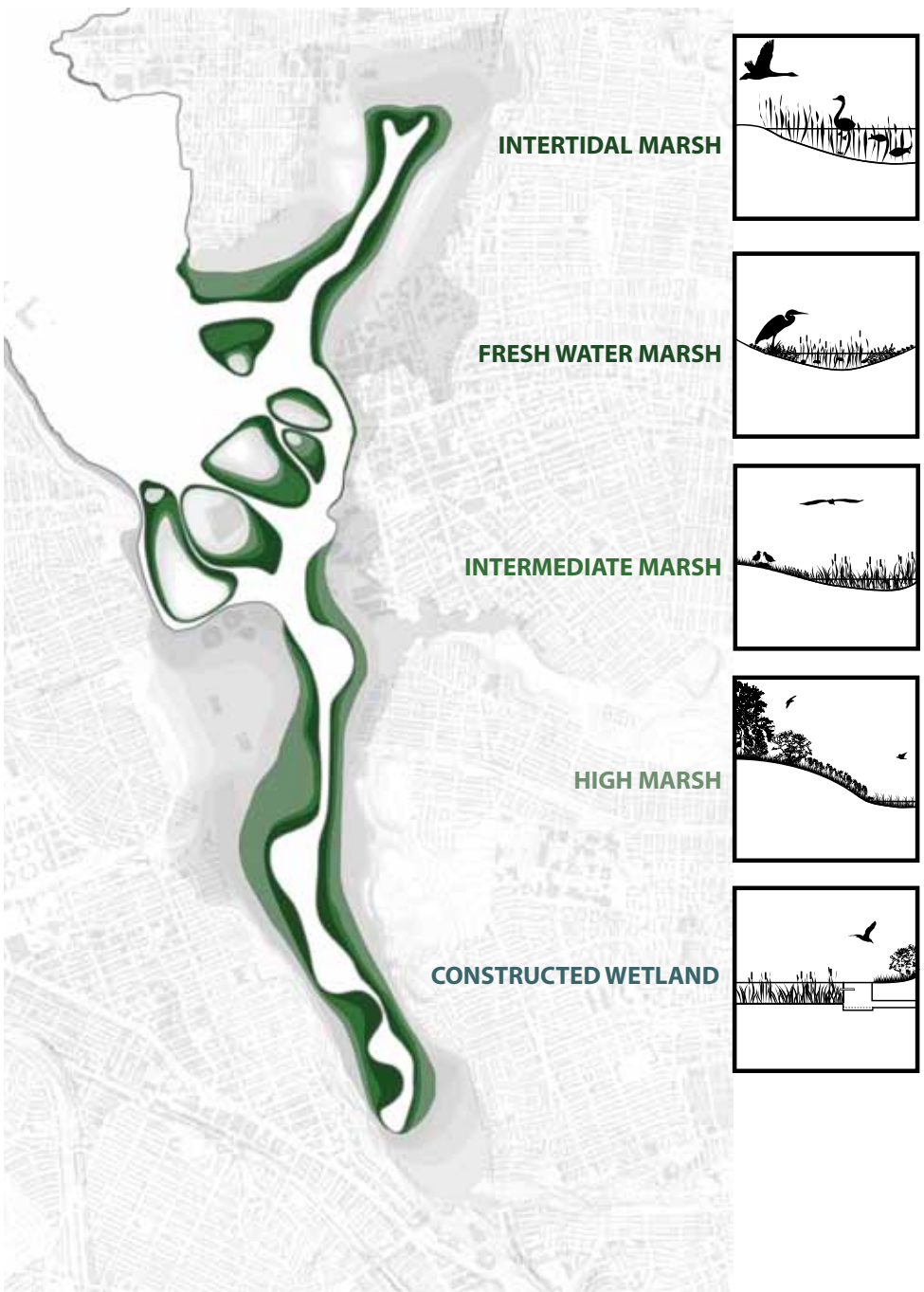
**The academic campus can be easily and cost effectively integrated into the World's Fair site in Flushing Meadows Park. The armature for urbanism is already in place, but most buildings were removed after the fair ended. This space can regain value and use after years of neglect. The campus development stitches together the existing vibrant community to the West with the underutilized Flushing Meadows Park.**

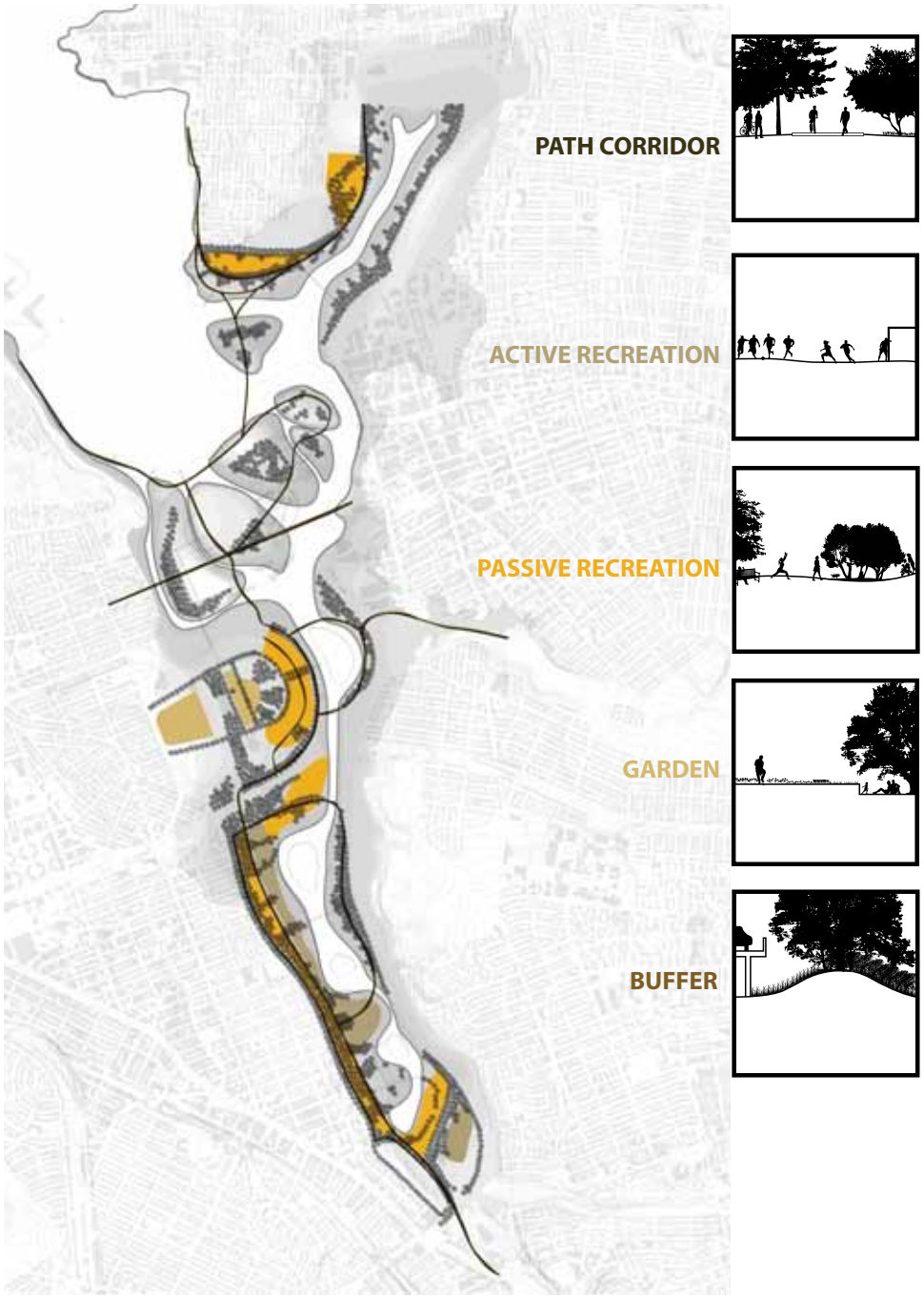


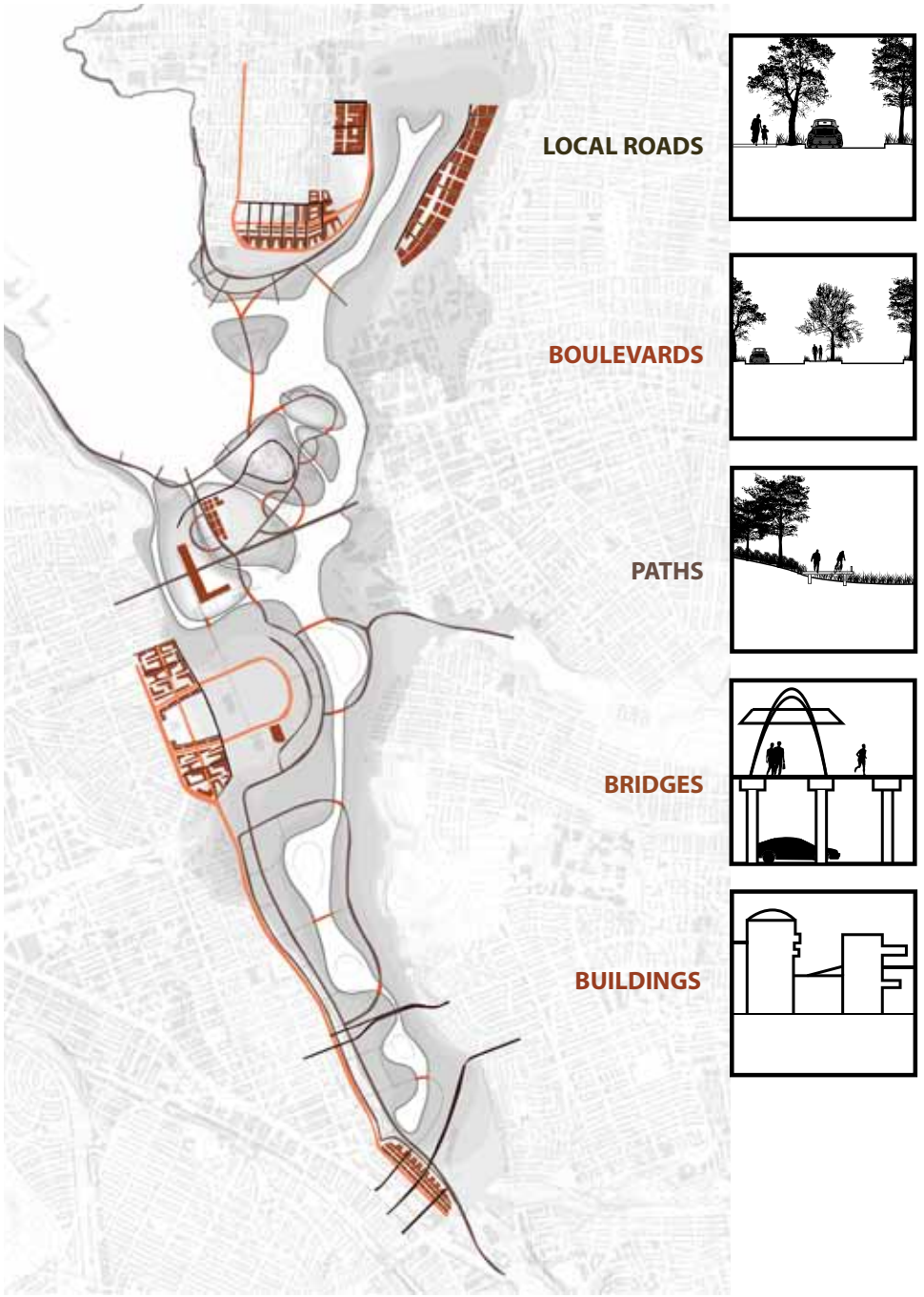

C
B
D
WILLETS POINT CAMPUS

## LAND USES DEFINED BY THEIR RELATIONSHIP TO HYDROLOGY




PATH CORRIDOR
ACTIVE RECREATION
PASSIVE RECREATION
GARDEN
BUFFER


LOCAL ROADS
BOULEVARDS
PATHS
BRIDGES
BUILDINGS

WILLETS POINT CAMPUS

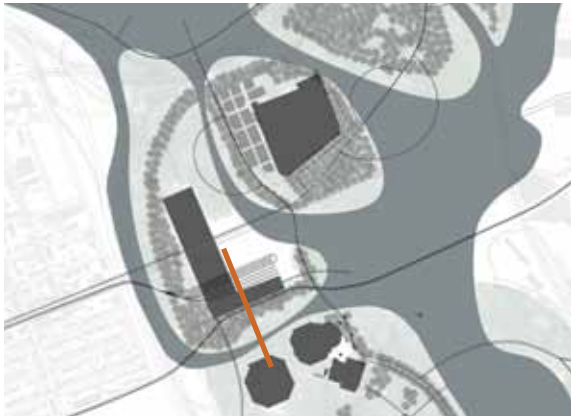
## SHIFTING LAND USE ON THE TRANSPORTATION-DEDICATED ISLAND

BUILT FORM / HARD INFRASTRUCTURE

OPEN SPACE / RECREATION

MARSH ECOLOGY

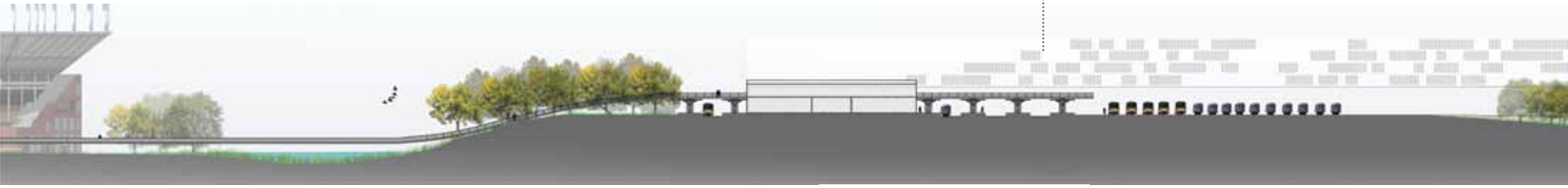
WATER



LOW WATER LAND USE ZONES

HIGH WATER LAND USE ZONES

MULTI-MODAL STATION



WILLETS POINT CAMPUS

A NEW MULTI-MODAL TRANSPORTATION CENTER PULLS TOGETHER THE LONG ISLAND RAILROAD AND METROPOLITAN TRANSPORTATION AUTHORITY STATIONS AS WELL AS INTRODUCES STADIUM SHUTTLE BUS SERVICE TO REDUCE PARKING SURFACE AREA ON THE ISLAND. THE STATION GIVES THE ISLAND ITS IDENTIY BY PROVIDING AN EFFICIENT TRANSPORTATION HUB AS WELL AS A SPACE FOR LARGE OUTDOOR CONVENTIONS.

## SHIFTING LAND USE FOR THE ACADEMIC CAMPUS

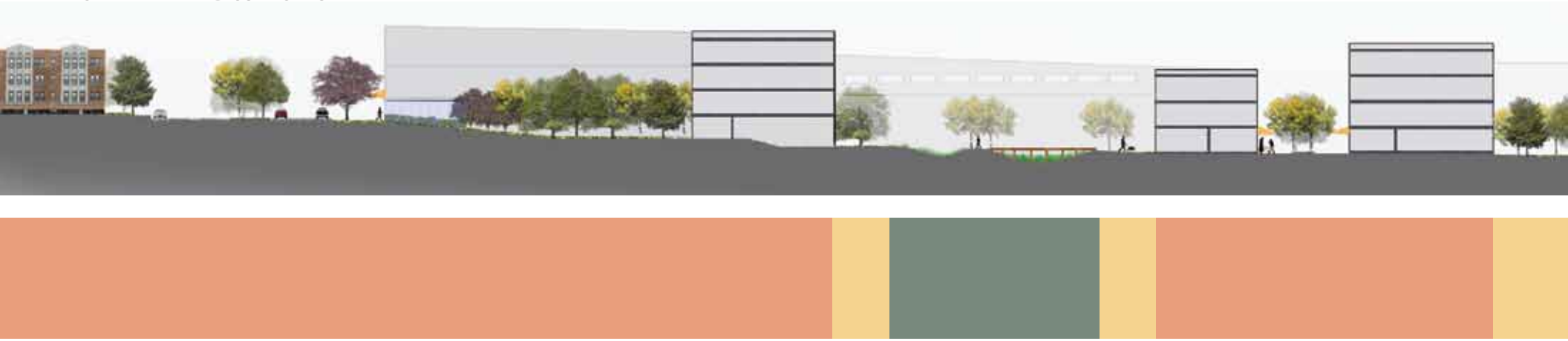
BUILT FORM / HARD INFRASTRUCTURE

OPEN SPACE / RECREATION

MARSH ECOLOGY

WATER

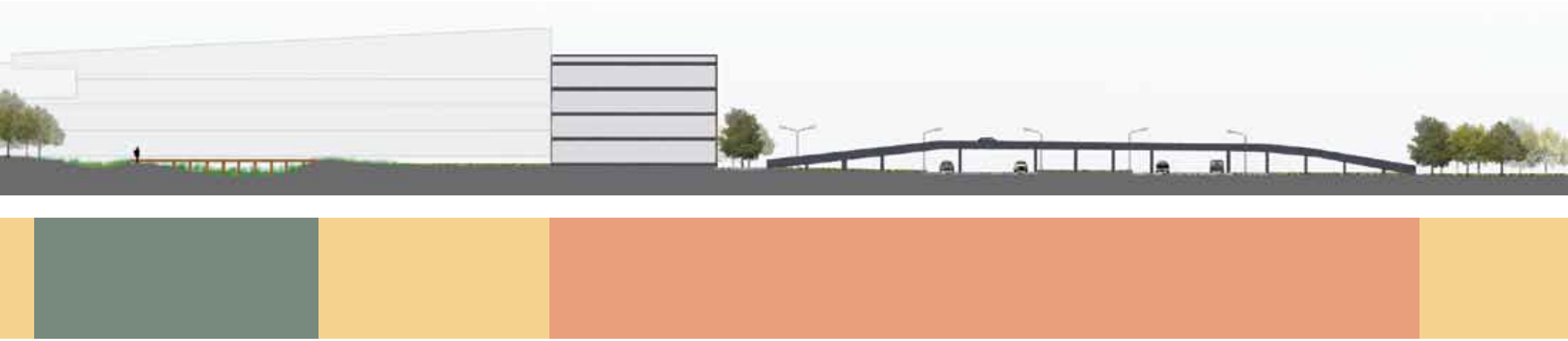
LOW WATER LAND USE ZONES



HIGH WATER LAND USE ZONES

WILLETS POINT CAMPUS

THE CAMPUS USES GREEN INFRASTRUCTURE TO KNIT TOGETHER URBAN FABRIC, OPEN SPACE, AND STORMWATER MANAGEMENT. THESE STRATEGIES TAKE ADVANTAGE OF THE OLD WORLD'S FAIR SITE TO BRIDGE THE GAP BETWEEN THE EXISTING CITY AND PARK.



## SHIFTING LAND USE FOR FLUSHING MEADOWS PARK

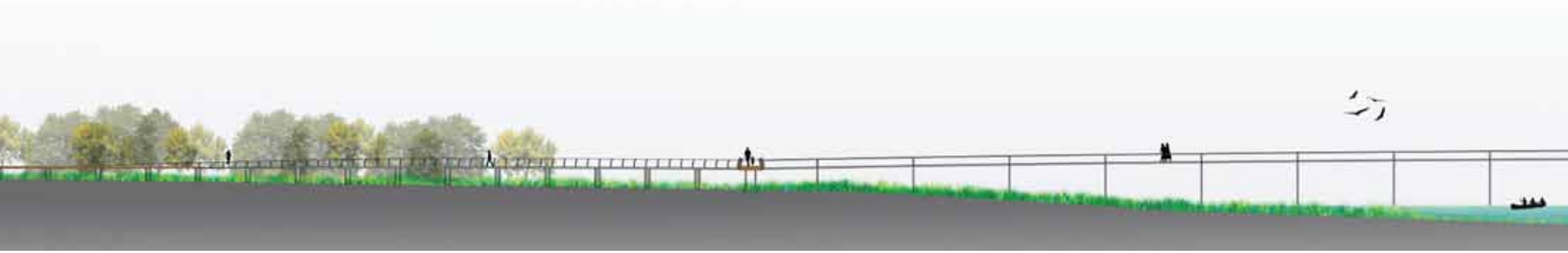
BUILT FORM / HARD INFRASTRUCTURE

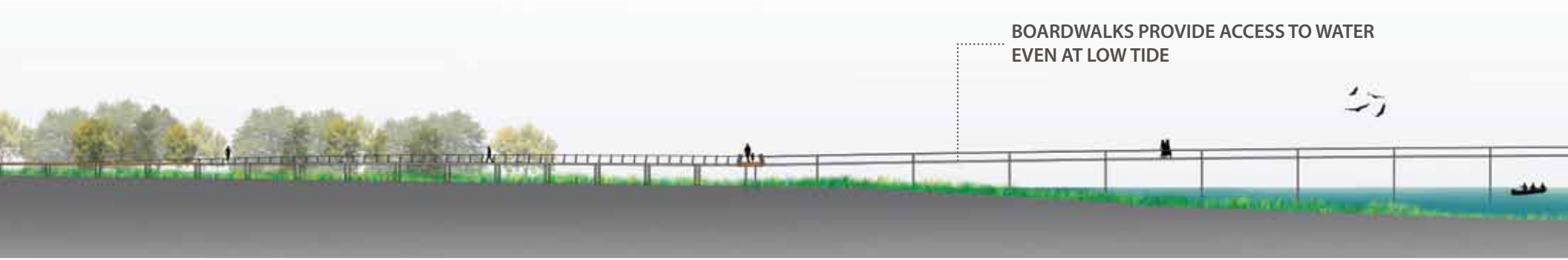
OPEN SPACE / RECREATION

MARSH ECOLOGY

WATER

THE PARK RESTORES ITS RELATIONSHIP WITH WATER BY UNEARTHING THE FLUSHING RIVER AND RELEASING THE DAM. A TIDAL MARSH DEFINES THE PARK'S IDENTITY AND CREATES A NEW REGIONAL RECREATIONAL AND ECOLOGICAL DESTINATION. PARK VISITORS EXPERIENCE THE CHANGING LANDSCAPE THROUGHOUT THE DAY'S TIDES, THE TRANSFORMATIVE SEASONS, AND THE SEA LEVEL RISE OVER MANY YEARS. THE ONCE DERELICT LANDSCAPE BECOMES A KEY STOP ON THE EAST COAST FLYWAY FOR MIGRATORY BIRDS AND AN IMPORTANT MARSH HABITAT FOR A VARIETY OF ENDANGERED SPECIES.






WILLETS POINT CAMPUS

# NATURAL HISTORY MUSEUM

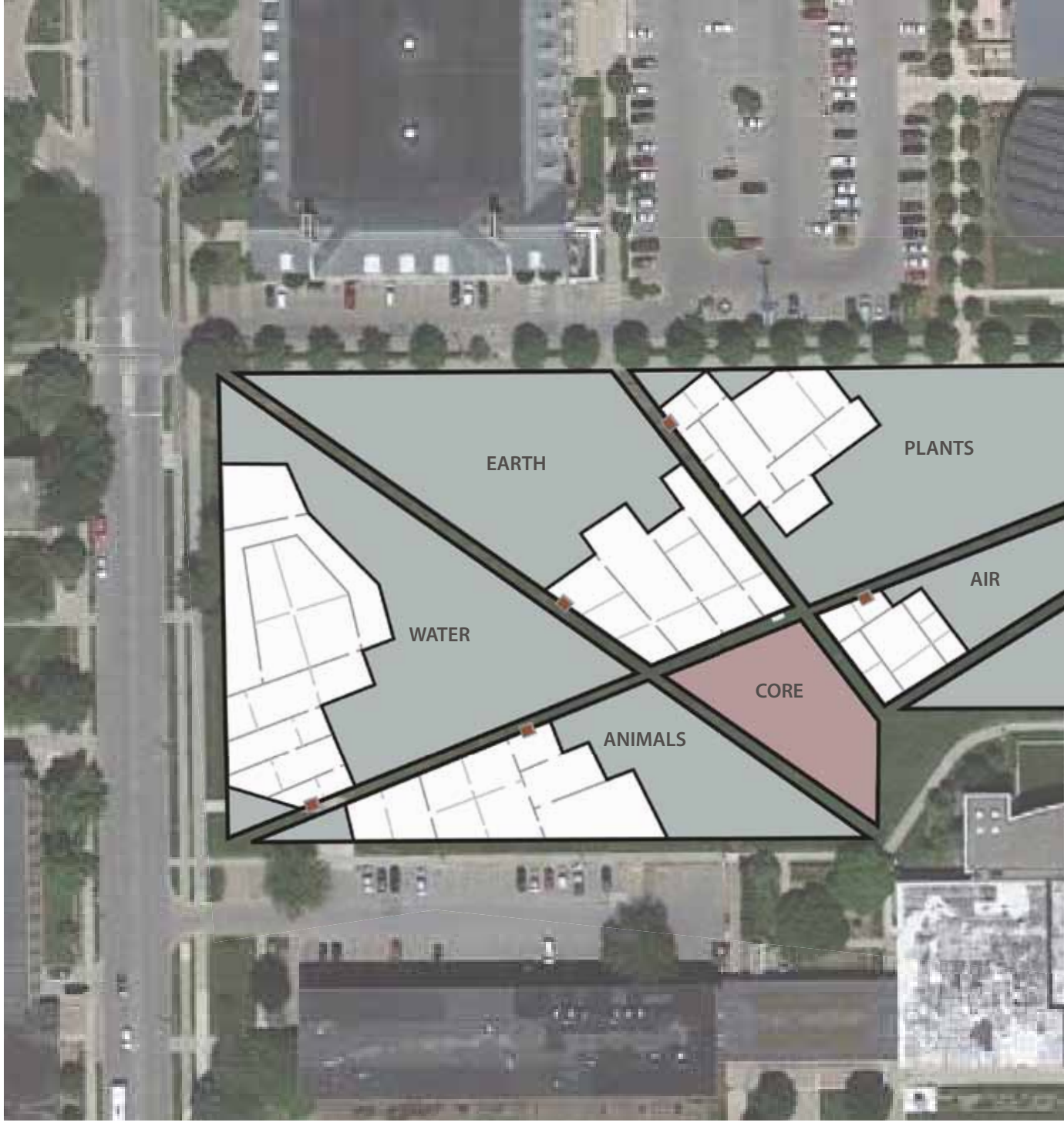
## CHAMPAIGN, IL

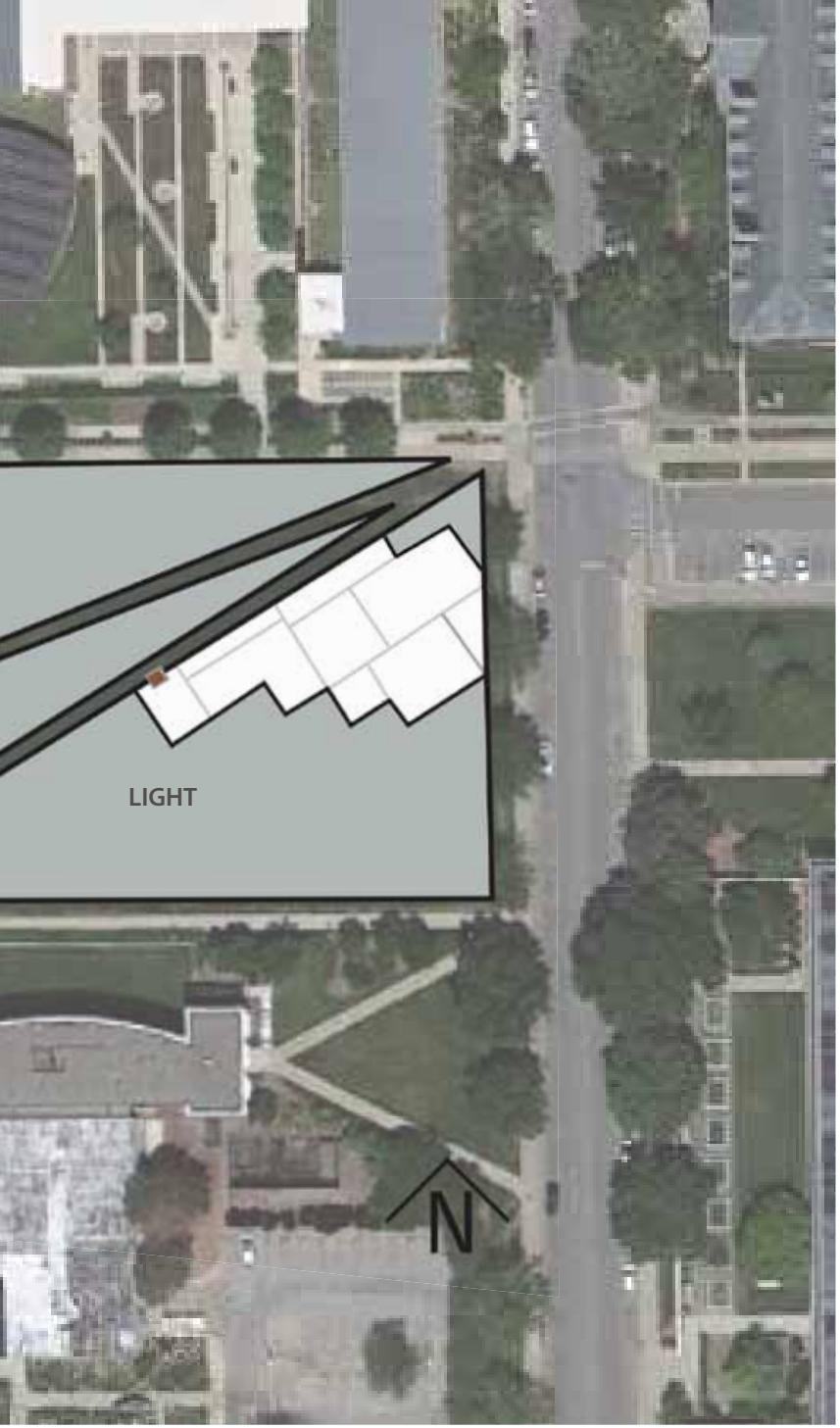
SENIOR STUDIO
UNIVERSITY OF ILLINOIS
Sasaki Award Winner 2009
in collaboration with Lyndi Honegger

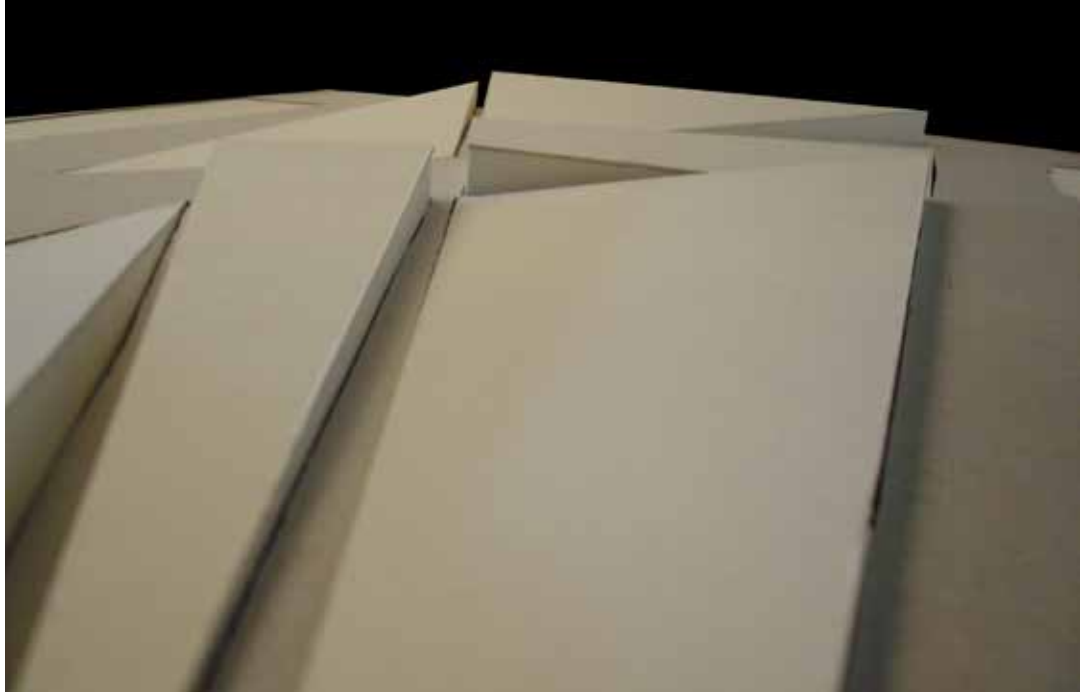
**The landscape architect is perhaps an ideal designer for a natural history museum. No other professional is more intimately familiar with the components of natural history: nature and time.**

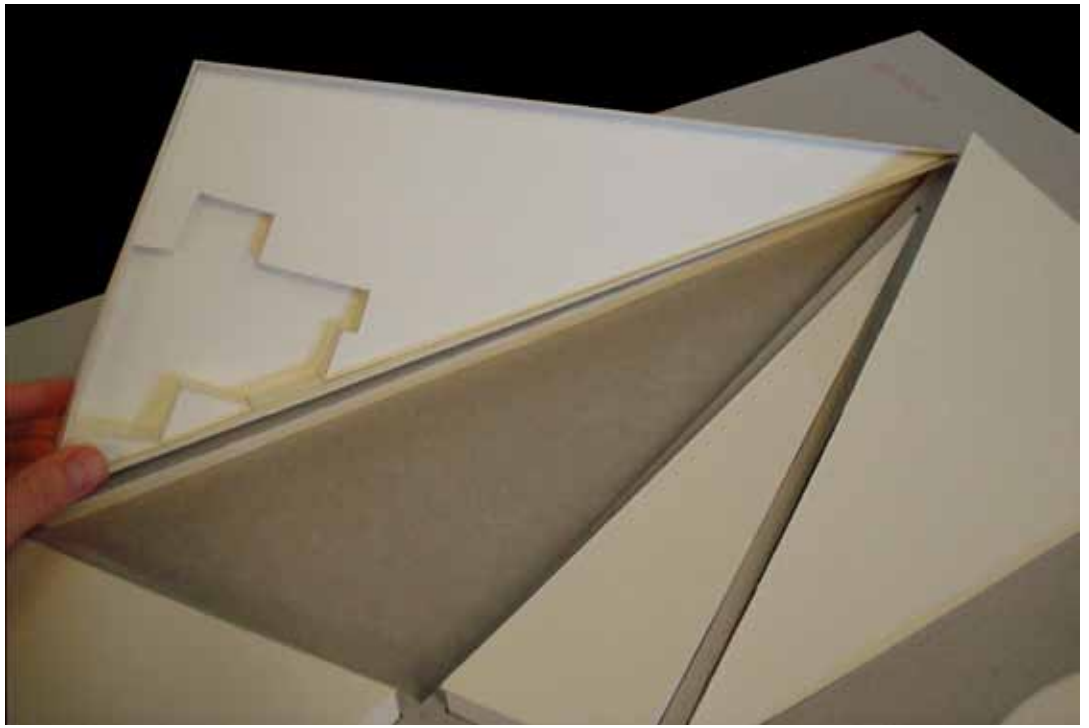
**The mission of this natural history museum is to reveal the subjectivity and indivisible human perspective of Nature by engaging our perception of natural history both intellectually and experientially. Models of time serve as pedagogical models for exhibit designs and paradigms of nature create an informational gateway to prime the visitor for the elemental natural experiences.**

**The museum acts as the interface between the natural world and man by exposing Nature through the temporal experience of natural elements and forces.**



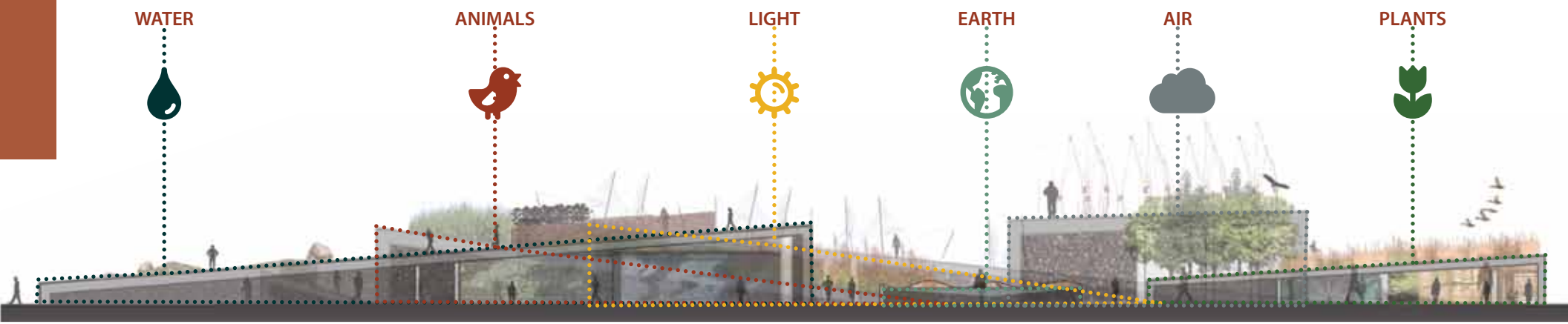

LIGHT
N



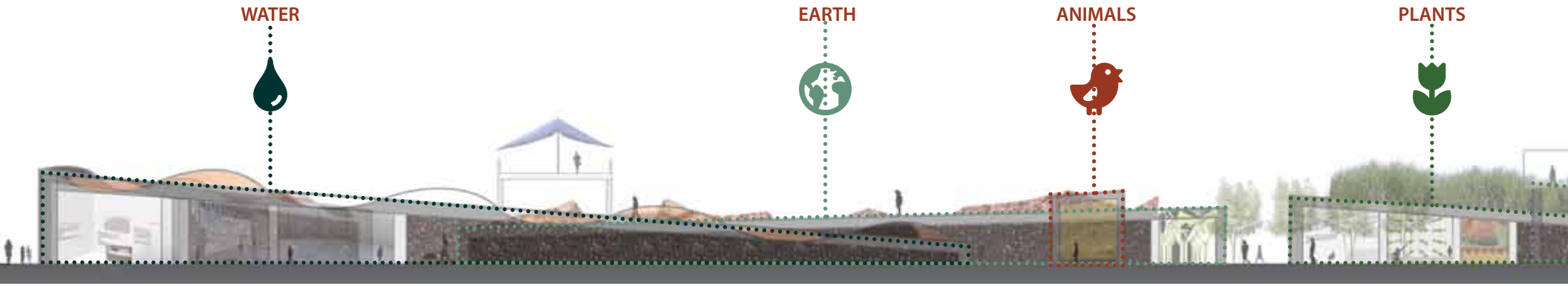


## MUSEUM STRUCTURE

**By dividing the site into sections determined by existing circulation paths, the museum allows for a range of museum users including casual passersby, curious visitors, and committed patrons. The paths become hinges for "wedges," which create a fractured site that allows for interior and exterior space use. At the high side of the wedges are entrances to interior rooms, while the low side of the wedges can be accessed from the paths at ground level. The tops of the wedges allow for additional exhibit space and passive recreation, which is currently lacking on this side of campus.**




NORTH-SOUTH LAYERED SECTIONS




EAST-WEST LAYERED SECTIONS


AIR
LIGHT

# Agriculture

sadlfkjs alkd-
jalfkjdsa a
ldfkjasdlf.alkjsdfkja
sdlfuwel alksdjfaie
alesjoefua eiuwour
osieu sdfoiuwe
odfsljou fsduf oaldu
oijsdfjl soiuwerj
osidfju alkduowu

sadlfkjs alkdjalfkjdsa
ldfkjasdlf.asdflj alk
alksdjfaie alesjoe
sdfoiuwe odfsljo
soiuwerj osidfj
osgu sdfjdslu

sadlfkjs alkdjalfkjdsa a
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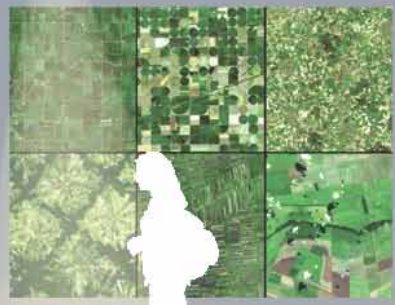
sdfjdslu

## Crops of the future

sadlfkjs alkdjalfkjdsa kjasdlf.asdflj alkjsdfkjasdlfu-

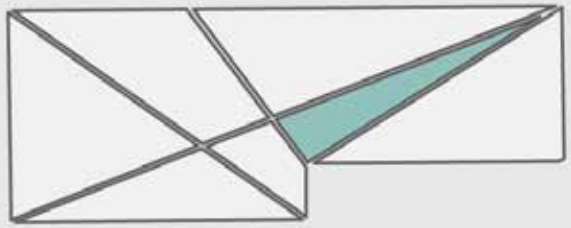

NATURAL HISTORY MUSEUM

## MOVEMENT PROGRESSION

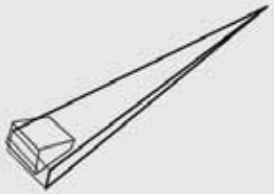
**Users enter the museum through informative gateways that present current issues pertaining to each natural history zone. These temporary exhibits divide information into four basic paradigms of nature. After visitors are intellectually primed, they immerse themselves in natural elements and forces experientially.**

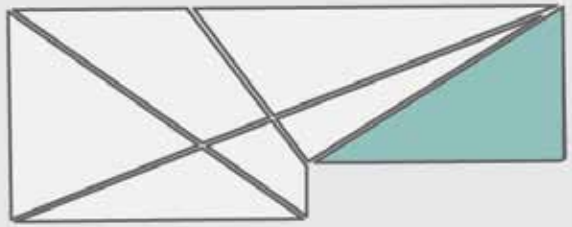

NATURAL HISTORY MUSEUM

## EXPERIENCE OF NATURAL FORCES AND ELEMENTS

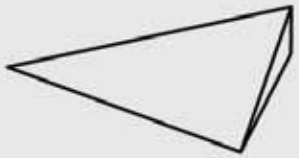


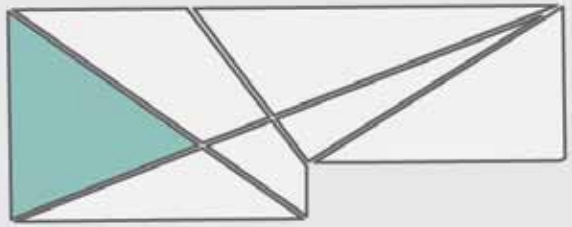
AIR



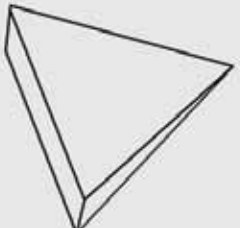


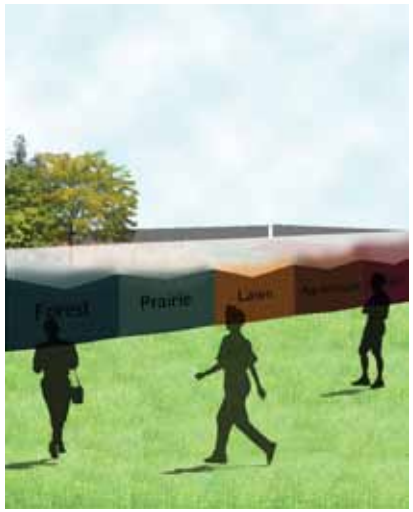
LIGHT

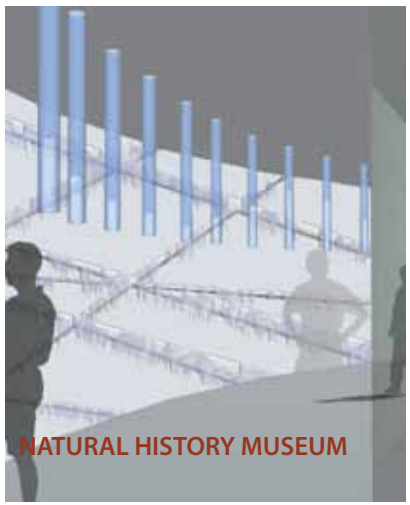




WATER







# BICYCLIST'S MEMORIAL

URBANA, IL

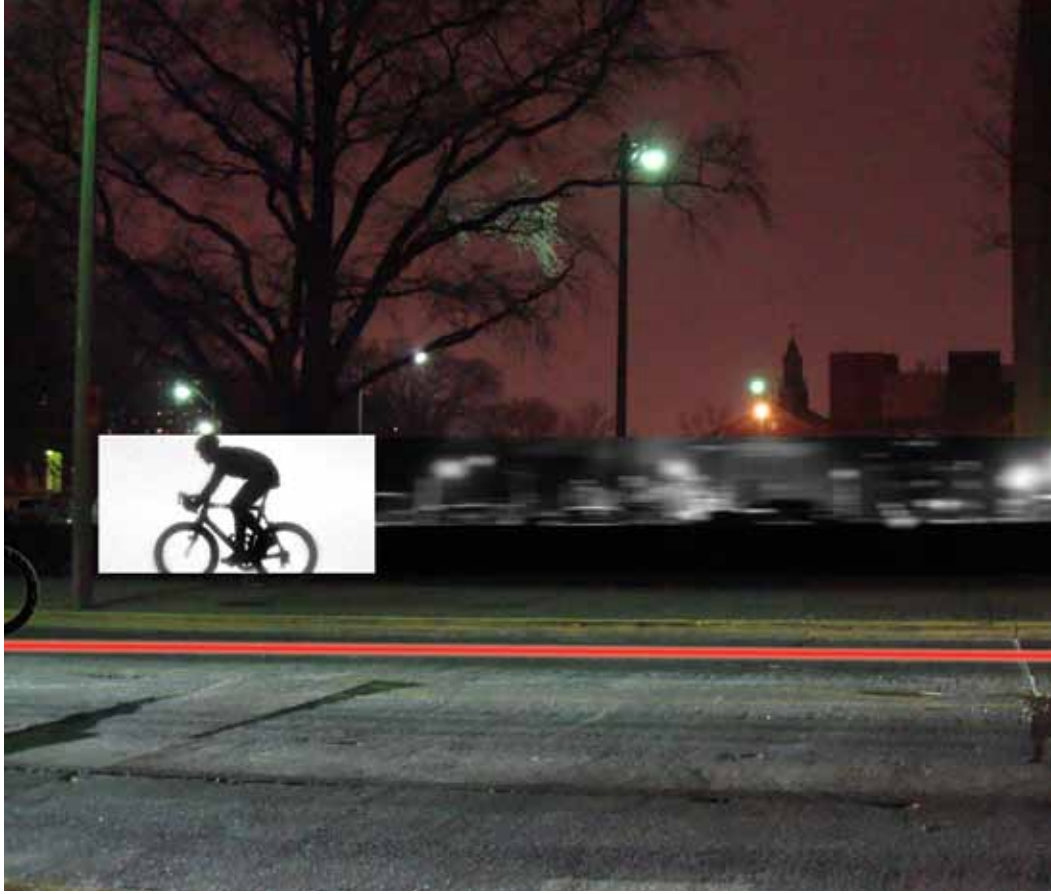
JUNIOR STUDIO, DESIGN COMPETITION
UNIVERSITY OF ILLINOIS
Sasaki Award Winner 2008

**The purpose of this design competition is to determine a new way to memorialize students on the University of Illinois campus. Rather than plant a memorial tree or place a bronze plaque, the University could make campus improvements in ways reflecting those being memorialized. Unlike benign standard memorials, this new type of intervention will retain meaning in a transitory population. These memorials provide a place for mourning and later still hold meaning for the campus population.**

**This specific intervention memorializes Matthew Wilhelm, a student who was struck by a car while riding his bicycle. The memorial's purpose is to reclaim a cyclist's right to the road by providing a safer place to ride.**

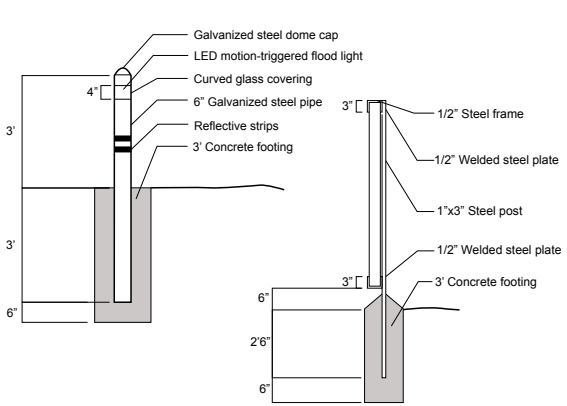
**In an environment of perpetual movement, this memorial reveals the moment hat unhinges the lives of all involved.**

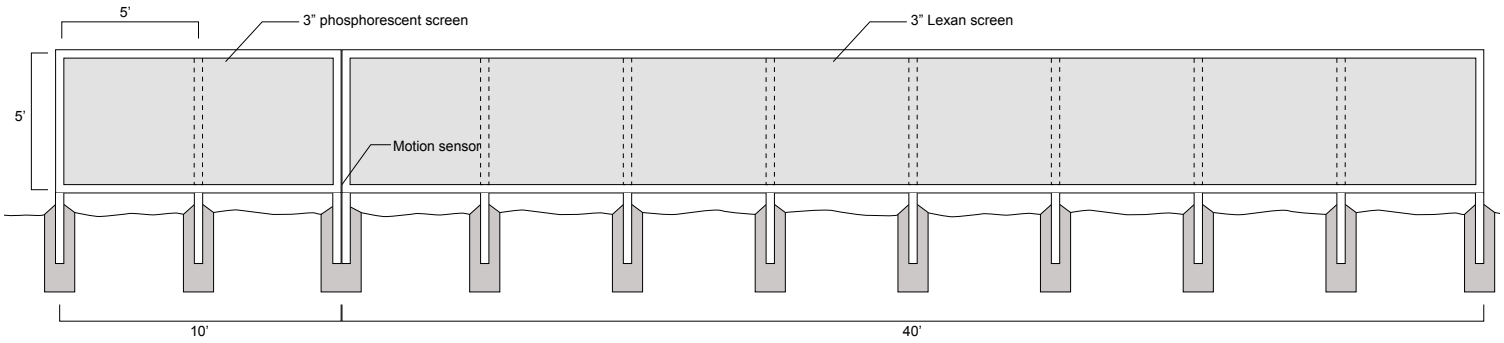




**Two constructed panels alter a motorist's perception of cyclists to make drivers more aware and cautious of a bicycle's presence on the road. The first panel distorts the cyclist's movement by reflecting and refracting the cyclist's image, making it appear BLURRED as if traveling more quickly than in actuality.**

**As the cyclist nears the second panel, he or she triggers a light as the bicycle passes the screen and approaches the intersection. The phosphorescent panel FREEZES the cyclist's shadow for several seconds, capturing the potential last living instant of any cyclist that could share Matthew Wilhelm's tragic fate.**




BICYCLIST'S MEMORIAL

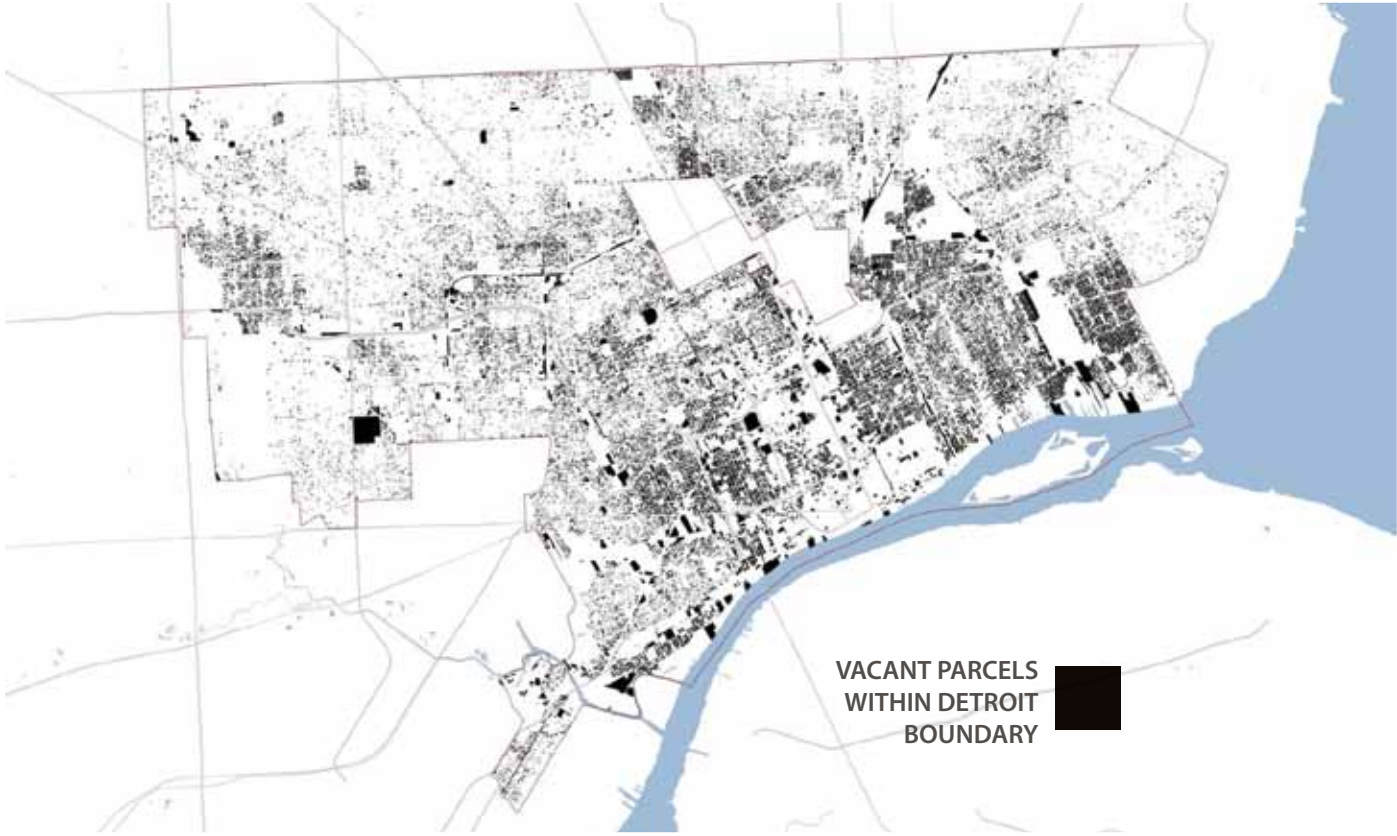
# DETROIT COMPETES!

DETROIT, MI

PLANNING OPTION STUDIO
HARVARD GRADUATE SCHOOL OF DESIGN

**The studio's goal was to identify strategies to start addressing the issues facing Detroit in the 21st century. Because Detroit is experiencing extreme planning challenges, designers and planners must prioritize the use of limited resources for maximum impact.**

**In evaluating urban health factors, Detroit appears to struggle regionally, nationally, and globally. Homegrown talent is leaving Michigan at staggering rates, and the few new businesses are locating outside of the urban core. There are, however, several heartening movements stirring in the Motor City, and Detroit must capitalize on this innovation by focusing resources on priority investments zones in the neighborhoods with the highest short- and long-term urban health potential. This project is an iterative strategy to identify these priority corridors and connections and mobilize the existing talent to redevelop the city one piece at a time toward a more competitive global city.**



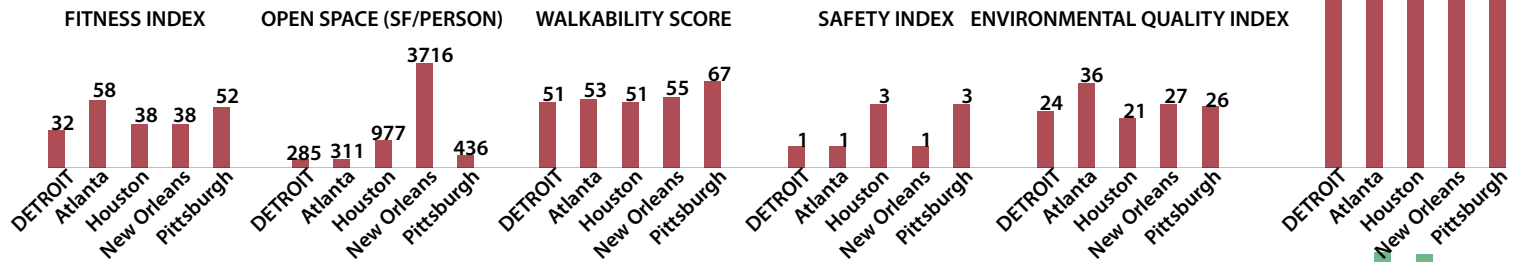

**Detroit's challenges include the physical deterioration of a shrunken city and the lack of hope for an economically viable future with high unemployment and low educational attainment in the city.**

27% UNEMPLOYED, 50% UNDEREMPLOYED

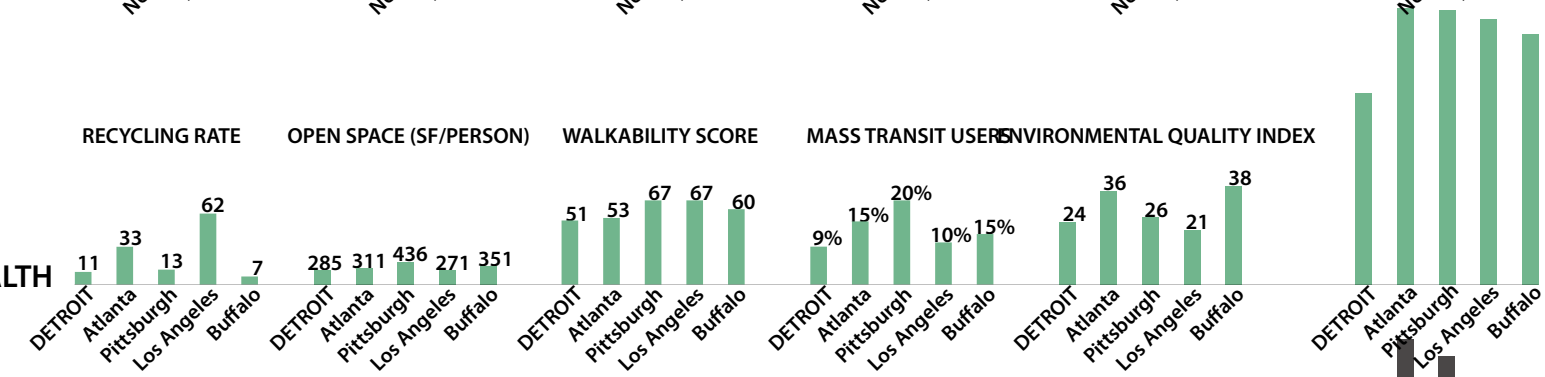

69% HIGH SCHOOL, 11% COLLEGE

# DETROIT'S URBAN HEALTH METRICS COMPARED WITH SIMILAR CITIES

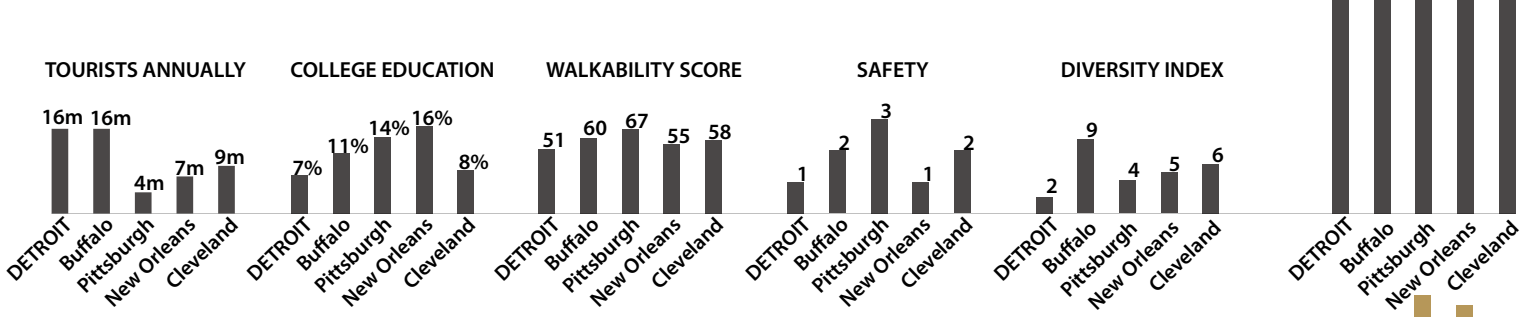
## PERSONAL HEALTH



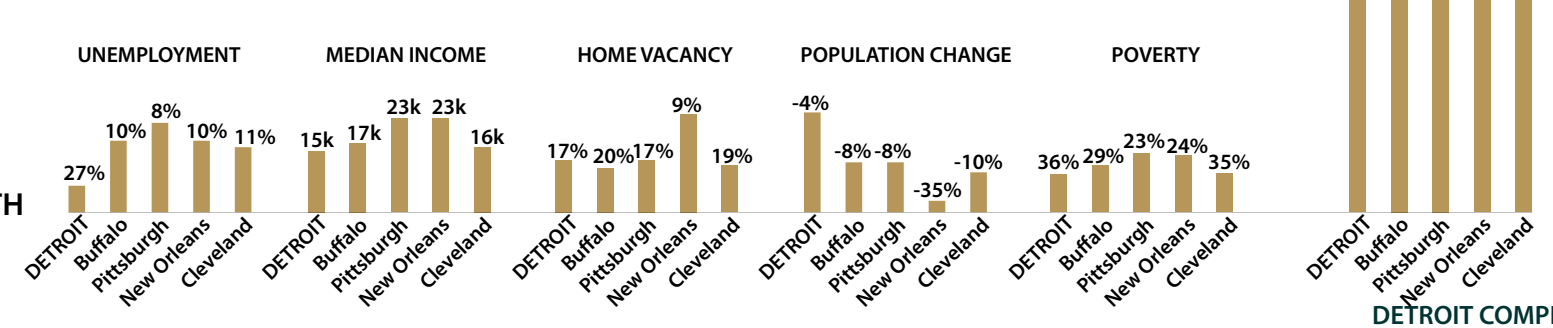

## ECOLOGICAL HEALTH




## CULTURAL HEALTH




## ECONOMIC HEALTH




DETROIT COMPETES!

## UNDERSTANDING HISTORICAL SHIFTS IN DETROIT'S ECONOMY

### SKILLED WORKERS & UNSOPHISTICATED TOOLS

(shipping, motor, carriage, furniture production)

**1896** - FORD'S FIRST AUTOMOBILE

INTRODUCTION OF AUTOMOBILE PRODUCTION

1900

### SKILLED WORKERS & UNSOPHISTICATED TOOLS

(early car production)

**1913** - HIGHLAND PARK PLANT OPENS

ASSEMBLY LINE MANUFACTURING

1950

### UNSKILLED WORKERS & SOPHISTICATED TOOLS

(current car production)

**1963** - POLICY CHANGES FROM PRODUCER TO CONSUMER NATION

DEINDUSTRIALIZATION BEGINS

### UNSKILLED WORKERS AND FEW JOBS

(little manufacturing work)

**1980s** - PRESENT

SURGE OF GLOBAL INFORMATION CAPITAL

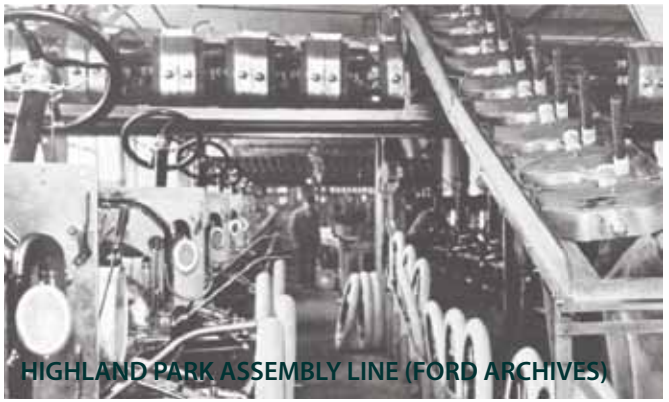
DEVELOPMENT OF KNOWLEDGE ECONOMY

DETROIT COMPETES!

?

EARLY 1900S BARREL FACTORY (NEWS HERALD)

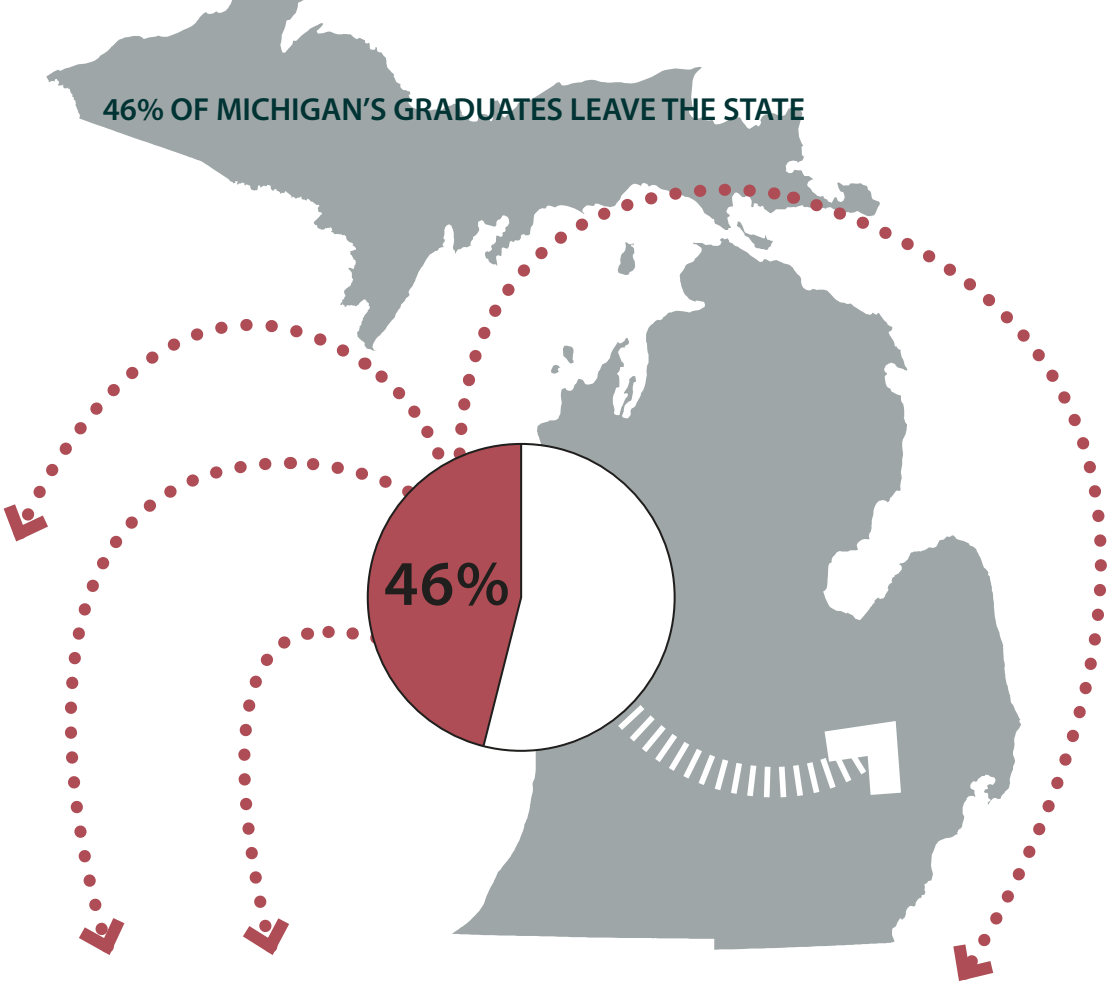
VERSION OF FORD'S MODEL T (MASTERSON LIBRARY)



HIGHLAND PARK ASSEMBLY LINE (FORD ARCHIVES)

RIVER ROUGE PLANT TODAY (ANDREW MOORE 2008)

## 46% OF MICHIGAN'S GRADUATES LEAVE THE STATE




## GOALS

ENHANCE DETROIT BUSINESS

TALENT

ENHANCE DETROIT LIVING

### ATTRACT

SMALL BUSINESS ENTREPRENEURS

SKILLED WORKERS

EDUCATED PEOPLE

PROFITABLE BUSINESS MODELS

### RETAIN

COLLEGE AND UNIVERSITY GRADUATES

DETROIT SCHOOLS

UNIVERSITY OF DETROIT MERCY
COLLEGE FOR CREATIVE STUDIES
WAYNE STATE UNIVERSITY
LEWIS COLLEGE OF BUSINESS
WAYNE COUNTY COMMUNITY COLLEGE

MAJOR MICHIGAN SCHOOLS

UNIVERSITY OF MICHIGAN- ANN ARBOR
MICHIGAN STATE- EAST LANSING

### CREATE

CHARTER SCHOOLS

VOCATIONAL SCHOOLS

INNOVATIVE TEACHING TECHNIQUES

SCHOLARSHIPS & FELLOWSHIPS

## FUTURE "YOUTH MAGNET" CITIES (WALL STREET JOURNAL)


1. WASHINGTON D.C.


2. SEATTLE


3. NEW YORK CITY


4. PORTLAND


5. AaustIN

## CRITERIA FOR ATTRACTIVE CITIES (WALL STREET JOURNAL)

1. ENTERTAINMENT AND RECREATION
2. NETWORKING
3. TECHNOLOGY JOBS
4. TRENDY CULTURE
5. CONNECTION TO UNIVERSITIES

DETROIT COMPETES!

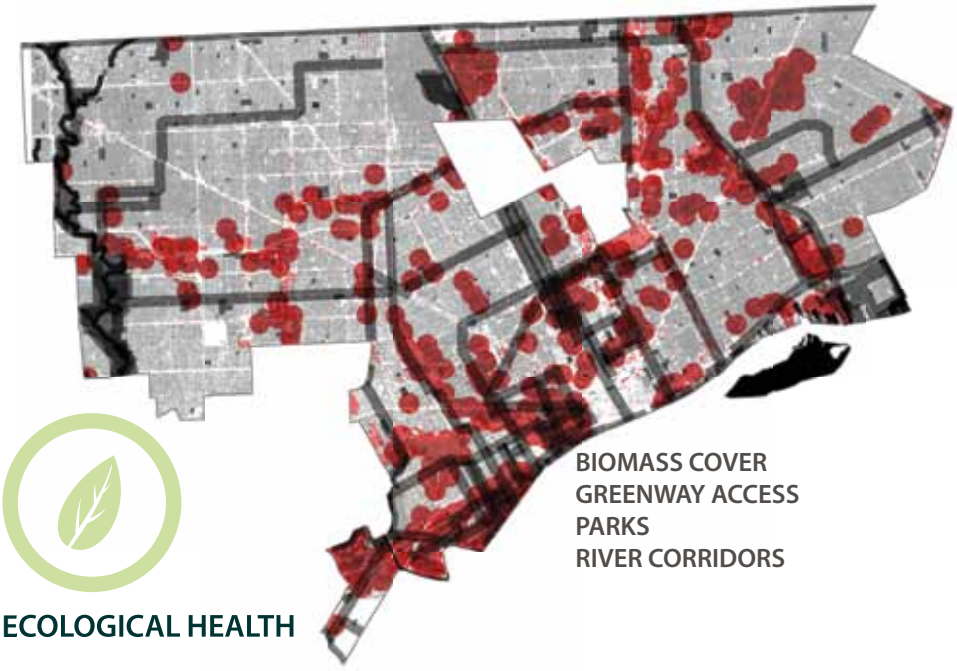
## MAPPING URBAN HEALTH CONDITIONS

### ECONOMIC HEALTH

PERCENTAGE EMPLOYED
EDUCATION LEVEL
PER CAPITA INCOME
OCCUPIED LAND

### CULTURAL HEALTH

WALKABILITY SCORE
ACCESS TO SCHOOLS
HISTORIC DISTRICTS
ENTERTAINMENT VENUES
CULTURAL ATTRACTIONS
SHOPPING ACCESS



### ECOLOGICAL HEALTH

BIOMASS COVER
GREENWAY ACCESS
PARKS
RIVER CORRIDORS

### PERSONAL HEALTH

WALKABILITY SCORE
ACCESS TO GROCERY STORES
RECREATION CENTERS
MEDICAL CENTERS
GREENWAY ACCESS
PARKS

MORE HEALTHY

## OVERALL URBAN HEALTH COMPOSITE

LESS HEALTHY

TOXIC SITE

## CURRENT DETROIT NEIGHBORHOOD BOUNDARIES

MORE HEALTHY

## RE-DRAWN BOUNDARIES OF SIMILAR URBAN HEALTH CONDITIONS

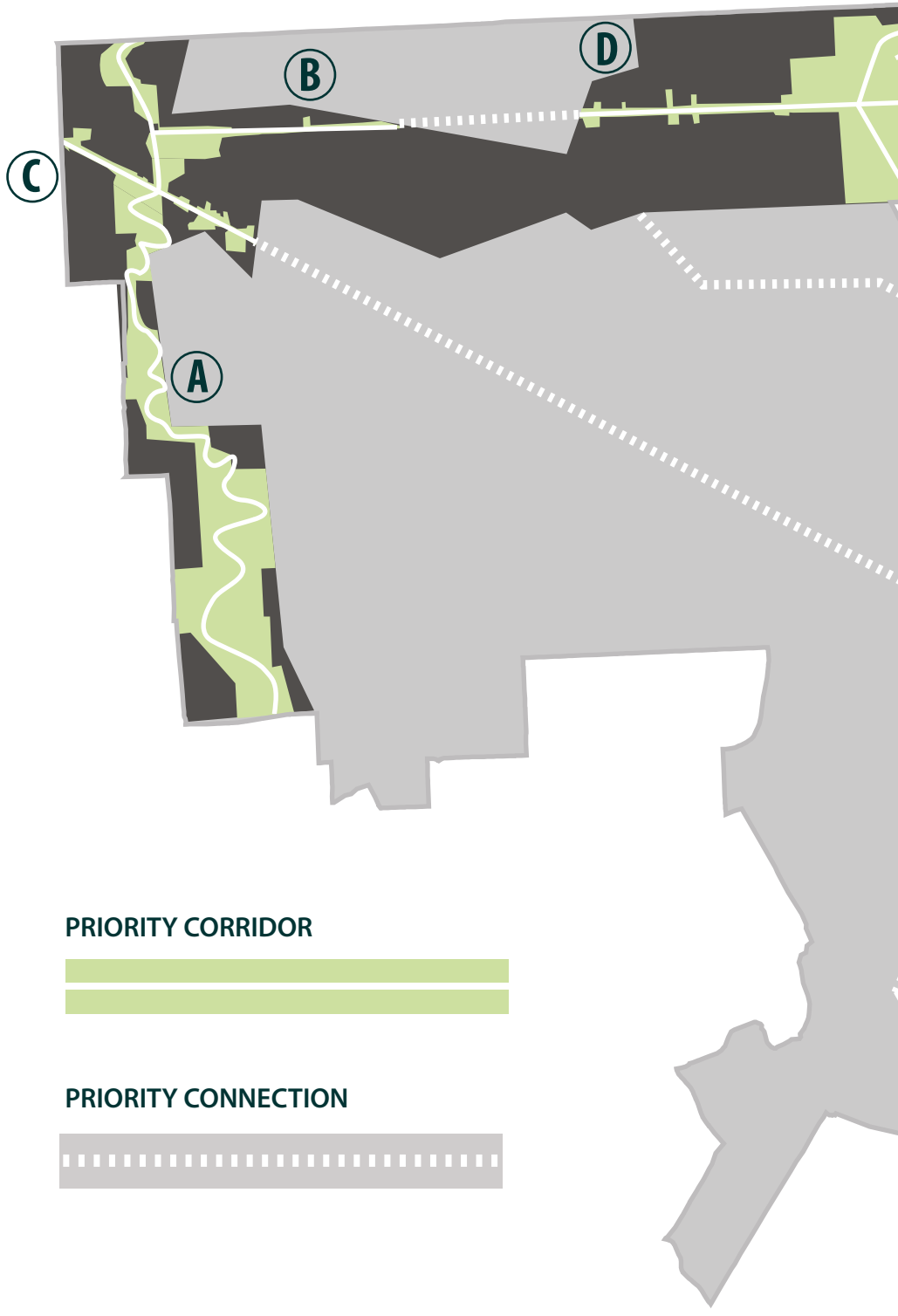
## PRIORITY CORRIDORS AND CONNECTIONS

**By rethinking Detroit's boundaries, planners and city officials can begin to identify zones of strength. Focusing resources on these potential powerhouses can be much more beneficial to the city as a whole than spreading resources evenly or attempting to fix the least healthy areas first. Detroit needs to have an overall strong urban health score in order to compete in the 21st century. Currently, it is not prioritizing its best bets for a bright future. This strategy helps determine the zones most likely to carry the city in this new economic climate.**

**Within each high urban health zone, a priority corridor is identified as the backbone for its zone. The corridors typically center around an existing physical corridor such as a river or major road between anchor institutions. Resources focused on these corridors strengthen their zones and, as a result, the city as a whole.**

**After priority corridors begin gaining traction, the city must connect them by investing in strategic transportation infrastructure. Detroit's crumbling roads and abandoned rail lines are much too damaged to successfully address them all at once, but strengthening key connections can spread the benefits being gained in each priority corridor and healthy urban zone.**

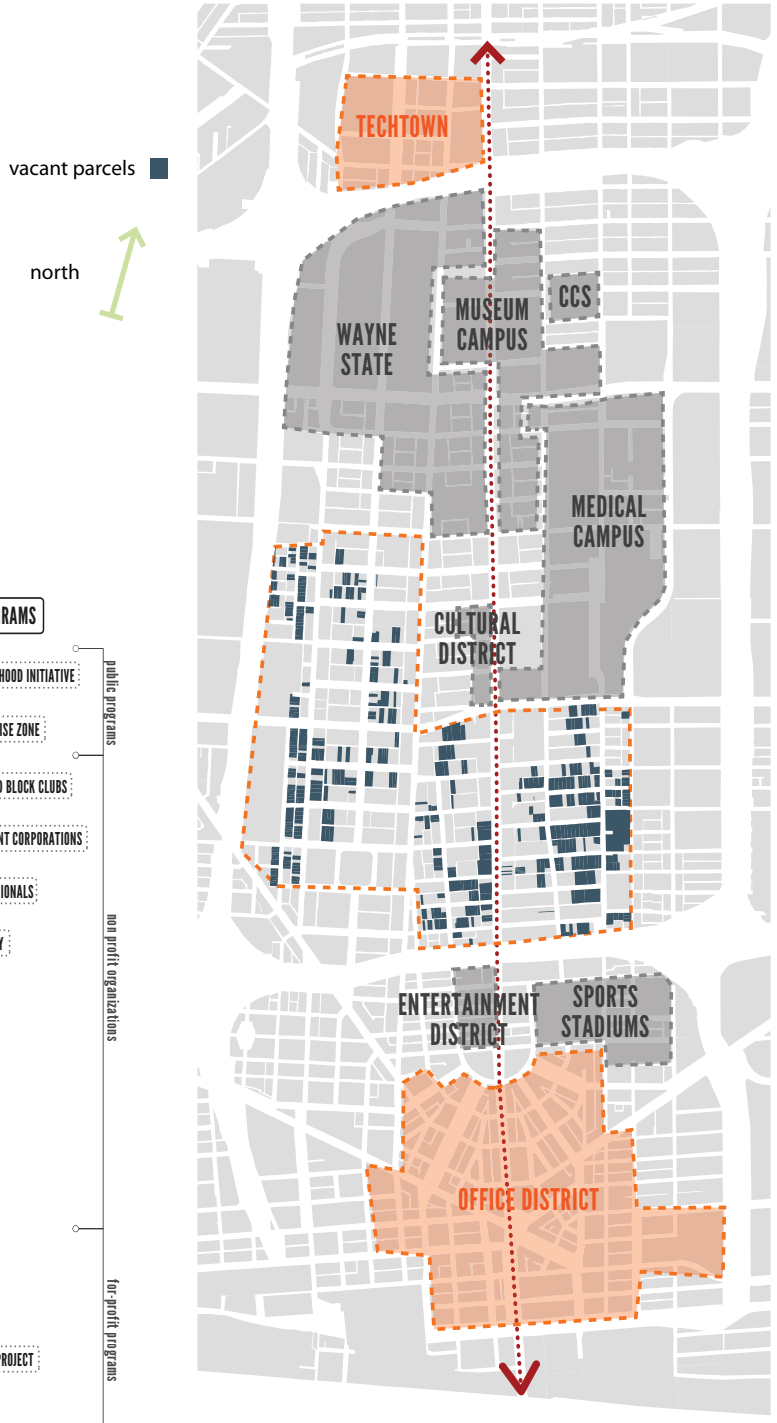
**As the city changes over time, urban health factors must once again be assessed and prioritized. This strategy is iterative and serves to help the city make the most of its limited resources. By focusing on attracting the right types of business and residents to the right locations, Detroit can secure its place as one of the great American cities.**



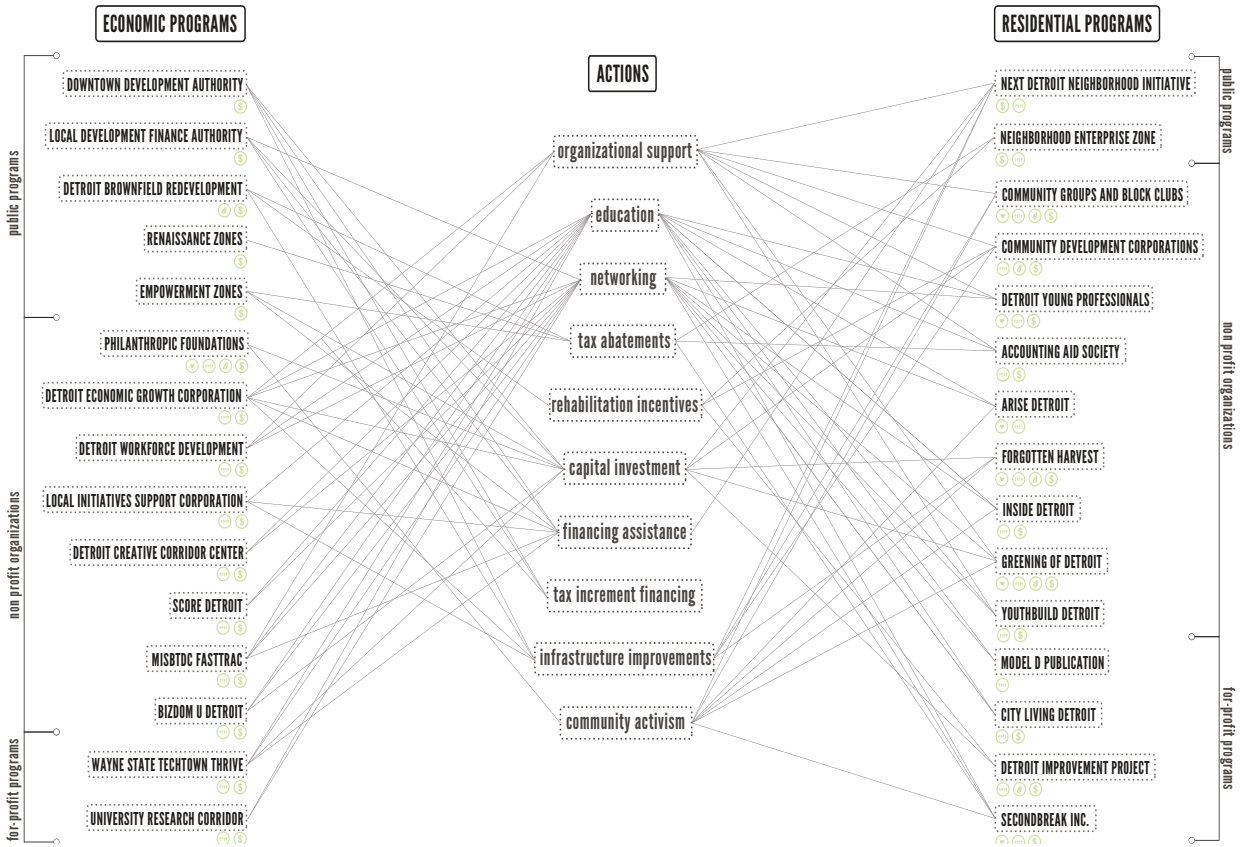

| CORRIDORS | | NEIGHBORHOOD |
|---|---|---|
| A | ROUGE RIVER | OLD REDFORD |
| B | SEVEN MILE I | |
| C | GRAND RIVER AVE I | |
| D | SEVEN MILE II | BAGLEY |
| E | PALMER PARK | |
| F | CHICAGO BLVD | BOSTON-EDISON |
| G | WOODWARD AVE | MIDTOWN |
| H | GRATIOT AVENUE I | |
| I | GRAND RIVER AVE II | |
| J | VERNOR HIGHWAY | MEXICANTOWN |
| K | E. JEFFERSON AVE I | EAST WATERFRONT |
| L | WATERFRONT I | |
| M | WATERFRONT II | MARINA DISTRICT |
| N | OUTER DRIVE EAST | EAST ENGLISH VILLAGE |
| O | MORANG DRIVE | |
| P | WARREN AVENUE | |
| Q | GRATIOT AVENUE II | MOHICAN REGENT |
| R | SEVEN MILE III | |

## WOODWARD CORRIDOR CASE STUDY

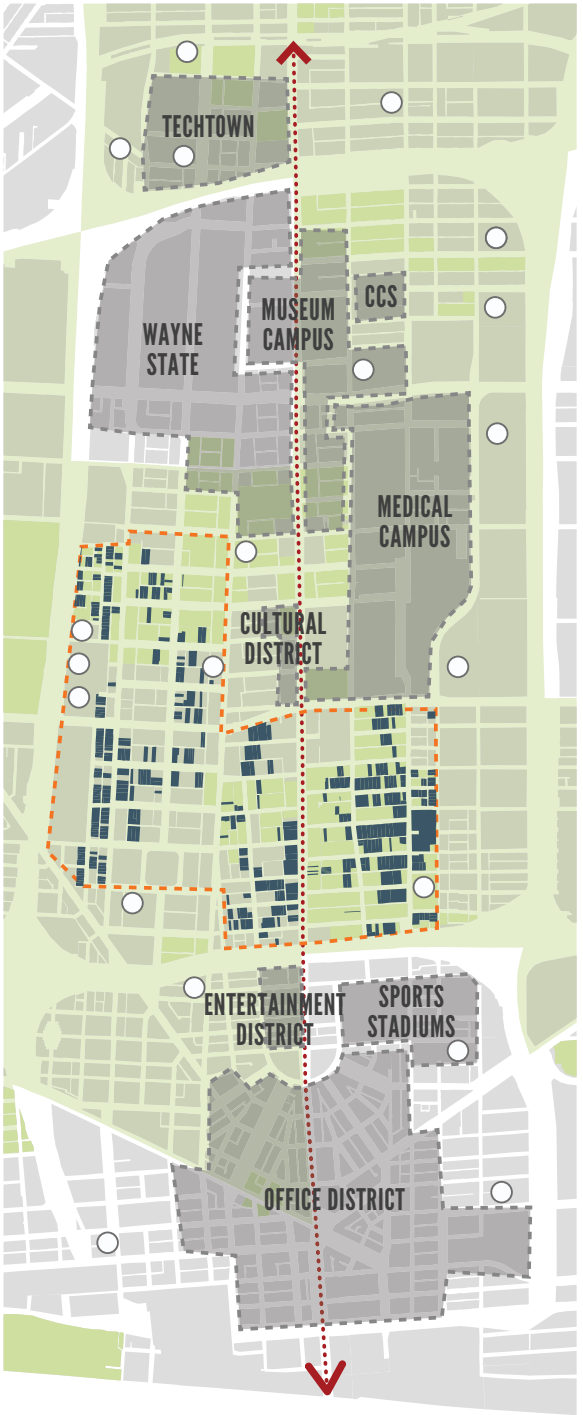
**The Woodward Corridor in downtown Detroit is an excellent case study because it has been identified as a particularly strong corridor with rich connections throughout the city. Strengthening this corridor will likely have far-reaching effects. Established institutions and districts, particulary in the area of high-paying employment opportunities, anchor the Woodward Corridor, but a large gap at the center of the corridor presents the opportunity to use the plentiful vacant land to connect and encourage development using the existing anchor programs as catalysts. This process can begin to attract high-paying work to Detroit, which has been steadily declining as jobs move outside of the city.**



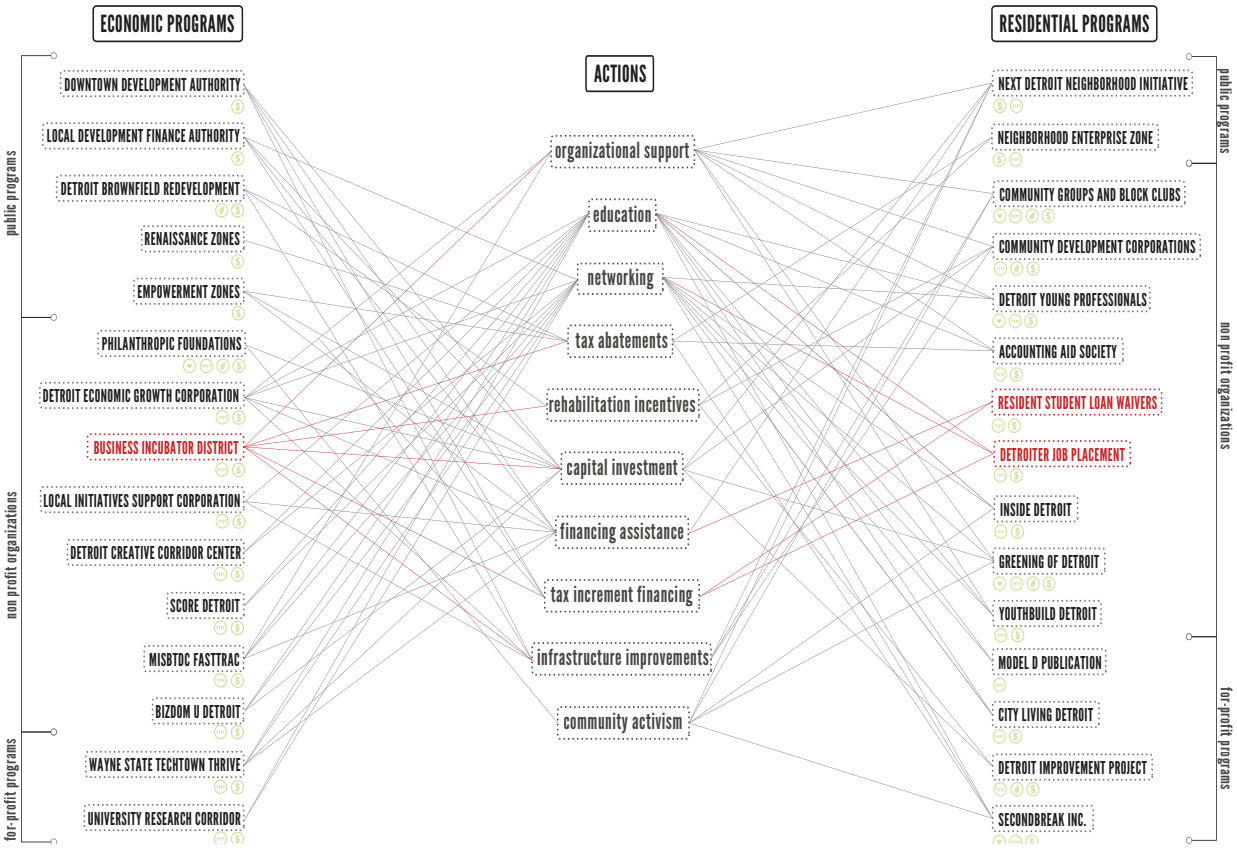

## EXISTING PROGRAMS



**By leveraging Neighborhood Empowerment Zone funding for economic development, vacant parcels in the "core" of the Woodward Corridor can become available for expansion of TechTown's business incubator program. As this program physically reaches south toward the established finacial office district, it closes the large gap in the middle of the corridor and reinforces the other districts as well by providing higher employment, less vacancy, and large amounts of community investment for infrastructure and public space improvements.**




## WOODWARD CORRIDOR PROGRAM INTERVENTION

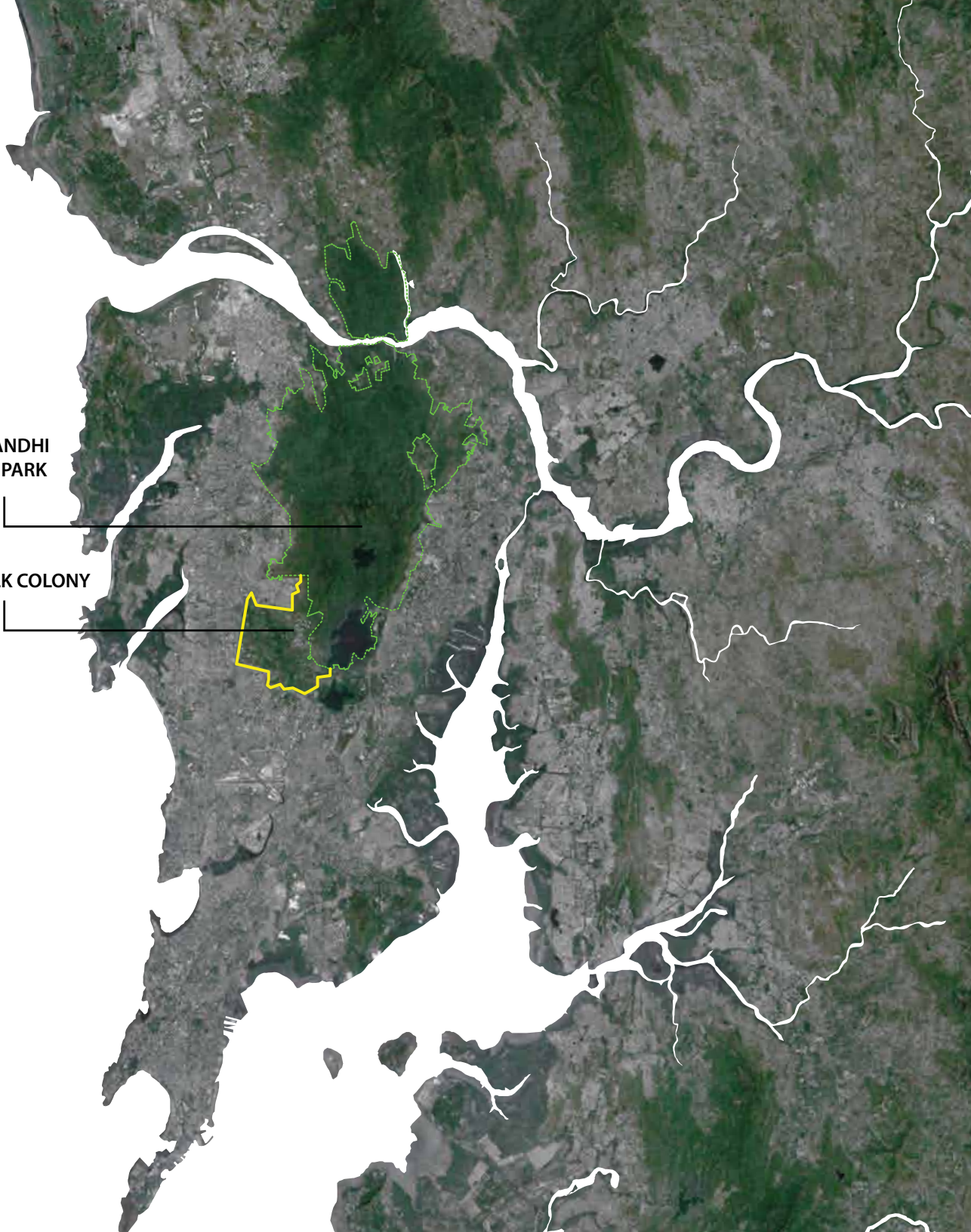


# URBAN ABERRATION

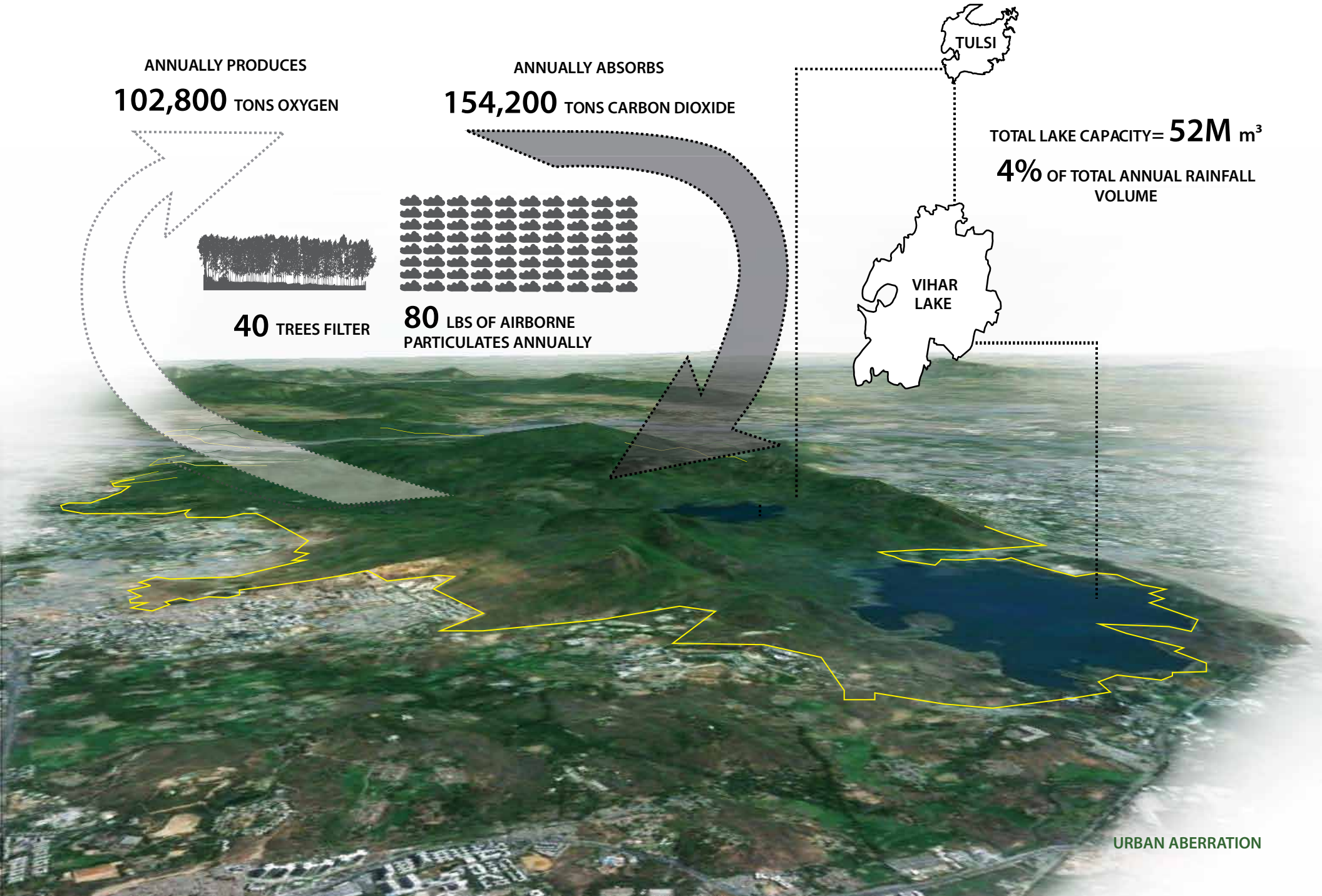
## MUMBAI, INDIA

URBAN DESIGN OPTION STUDIO
HARVARD GRADUATE SCHOOL OF DESIGN

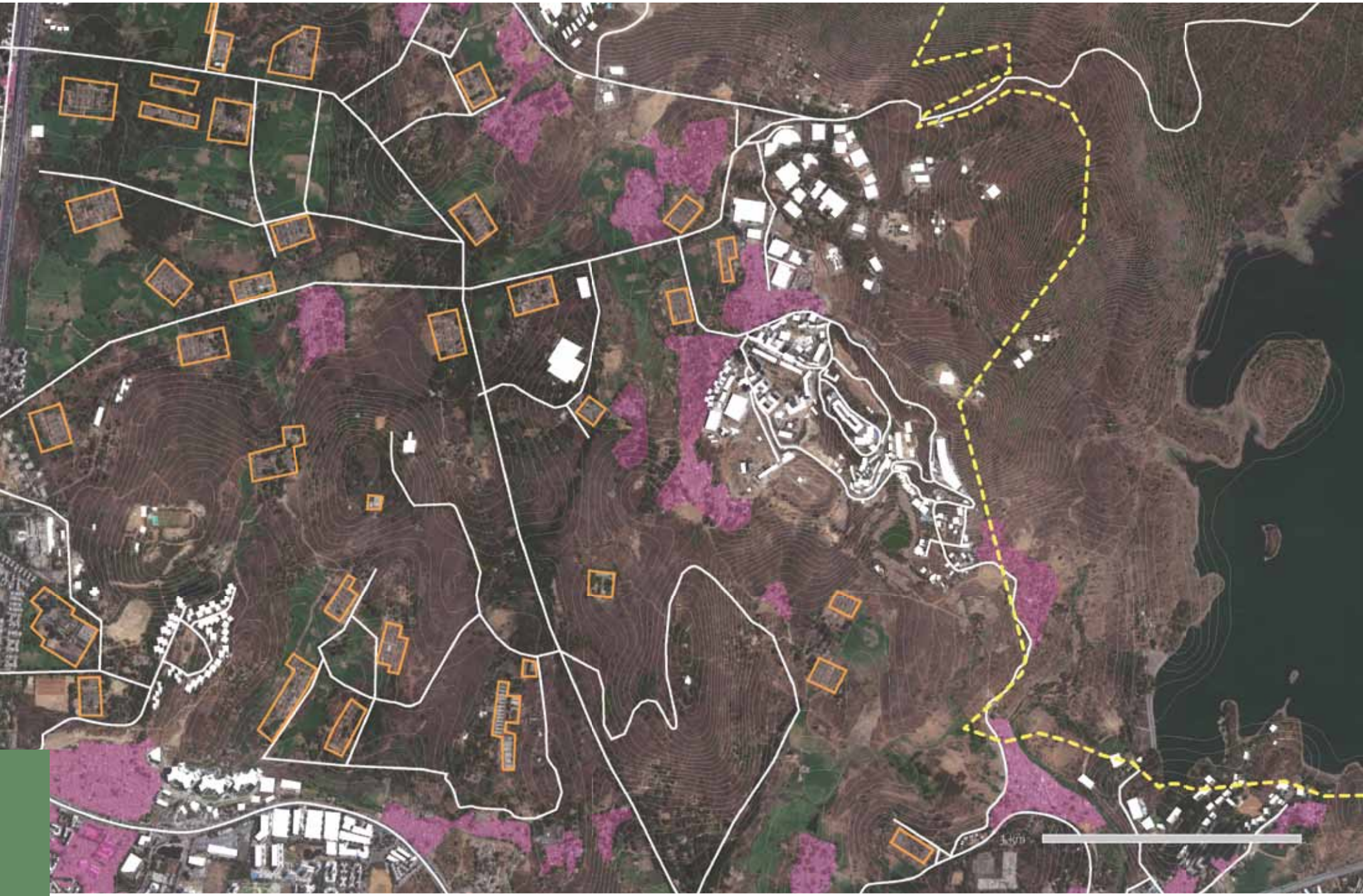
**This project aims to use design as a democratic negotiation method within a landscape of contested control by anticipating and preempting conflicting aspirations for the Aarey Colony. This thirteen square kilometer pastoral milk production district on the southwestern corner of Sanjay Gandhi National Park is one of the only large undeveloped spaces in the city outside the park itself. Recently the Aarey Colony has become much more vulnerable to development pressure, and as one of the least encroached boundary conditions of the national park, the Aarey Colony's fate becomes a critical concern when considering the potential effects on the park resources' protection.**



## THE NATIONAL PARK'S VALUABLE ECOSERVICES IN AN ECOLOGICALLY POOR URBAN METROPOLIS



## AAREY MILK COLONY ON THE EDGE OF THE PARK EXPERIENCING ENCROACHMENT



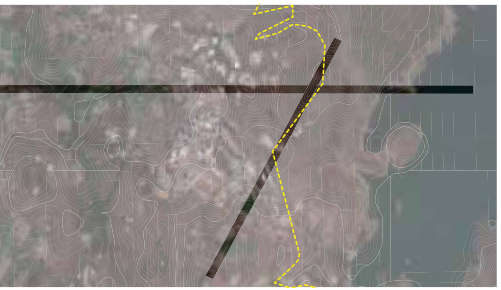
URBAN ABERRATION

DAIRY FACILITIES

INFORMAL SETTLEMENT

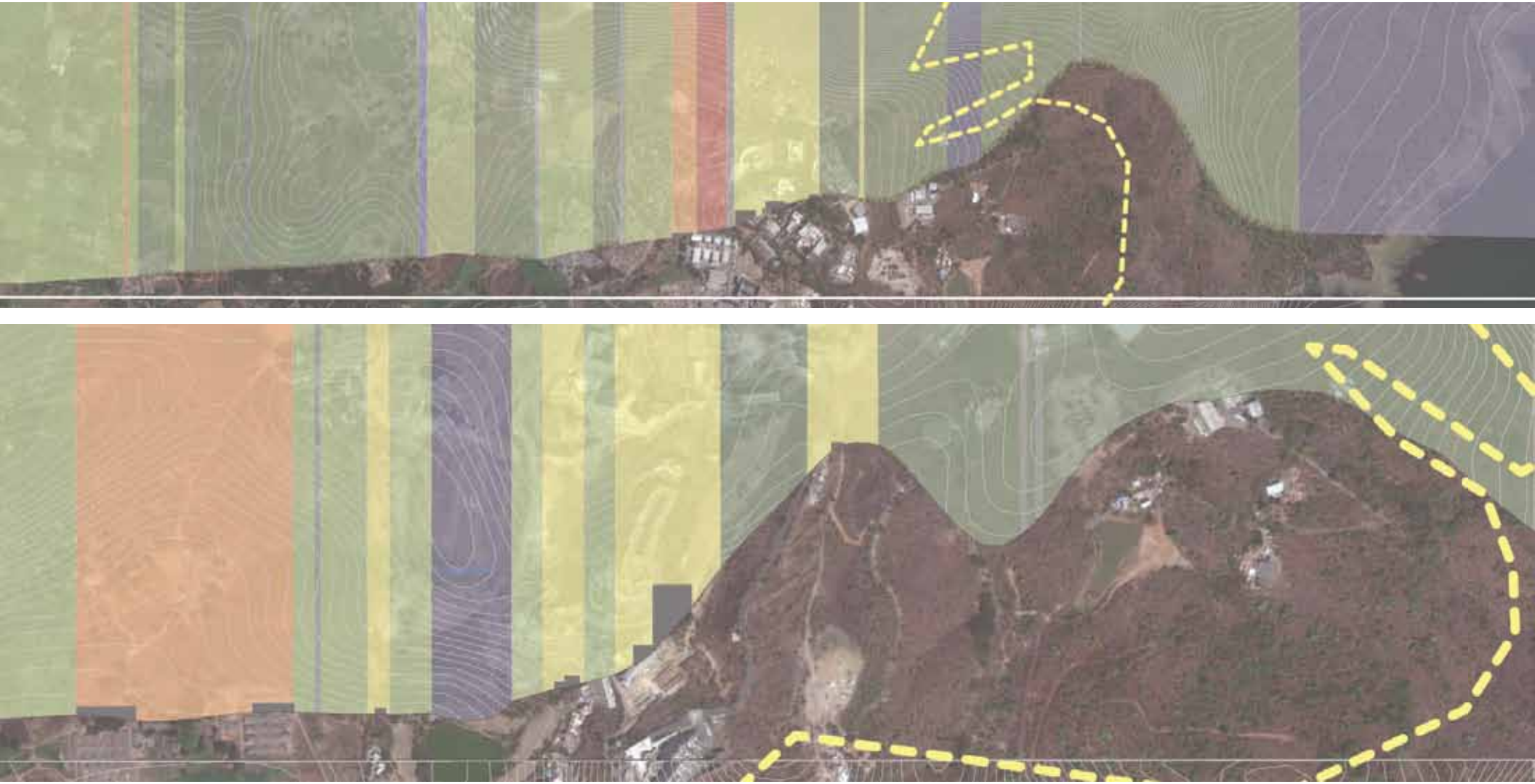
PARK BOUNDARY

## LAND USE ANALYSIS ALONG THE AAREY COLONY AND NATIONAL PARK BOUNDARY



**By cutting sections through the site, the land uses and their geographical needs become apparent. This analysis is useful as new types of boundaries must be imagined to protect resources and contain harmful development. Using strategic adjacencies and topographical techniques, designers can plan invisbile yet functional boundary conditions for the National Park and Aarey Colony.**

PASTURE JUNGLE ROADS BUILDINGS WATER DAIRY



URBAN ABERRATION

## THE QUICKLY GROWING FILM CITY DEVELOPMENT THREATENS BOTH THE AAREY COLONY AND NATIONAL PARK BOUNDARY


**The multiple constituent groups active in the Aarey Colony – development and film production tycoons, local residents and dairy farmers, and political agencies - each have specific aspirations and agency for exploiting the landscape. The future of the Aarey Colony and therefore Sanjay Gandhi National Park depend heavily on which group gains the highest level of authority to act on the site. By defining these characters as well as their potential powers and needs, design can be used to transform the Aarey Colony into a negotiated territory, revealing the spatial and political agreements possible between groups. This negotiation process unearths the true value of the landscape and facilitates mutually beneficial solutions to both the constituent groups acting here as well as the metropolitan region as a whole.**

## CONSTITUENT GROUPS ACTING UPON THE AAREY COLONY




2007
2009
2010
2011
2012


2000


2012

## SCENARIO ONE: BIG MONEY'S DESIRES

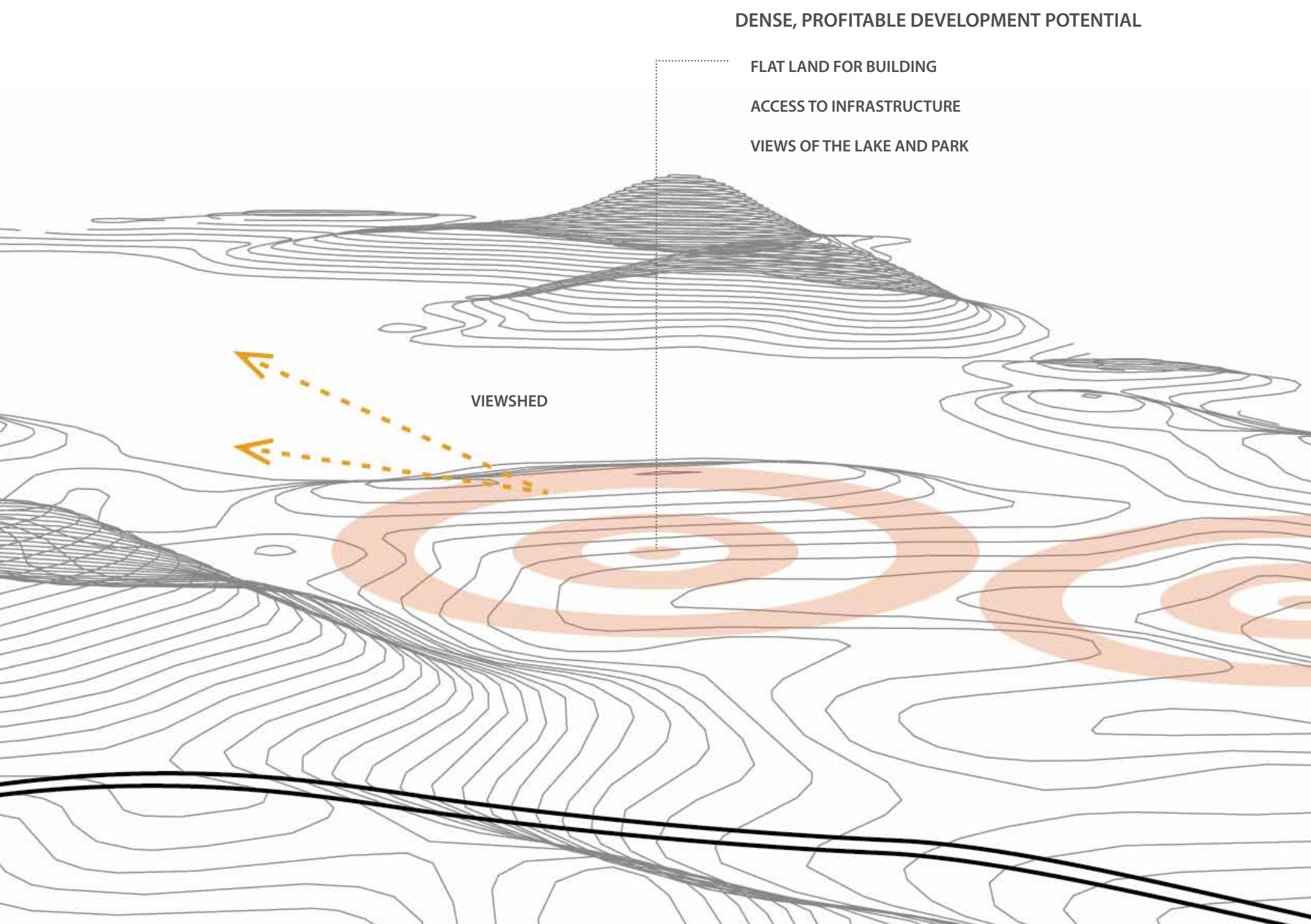

REAL ESTATE DEVELOPERS

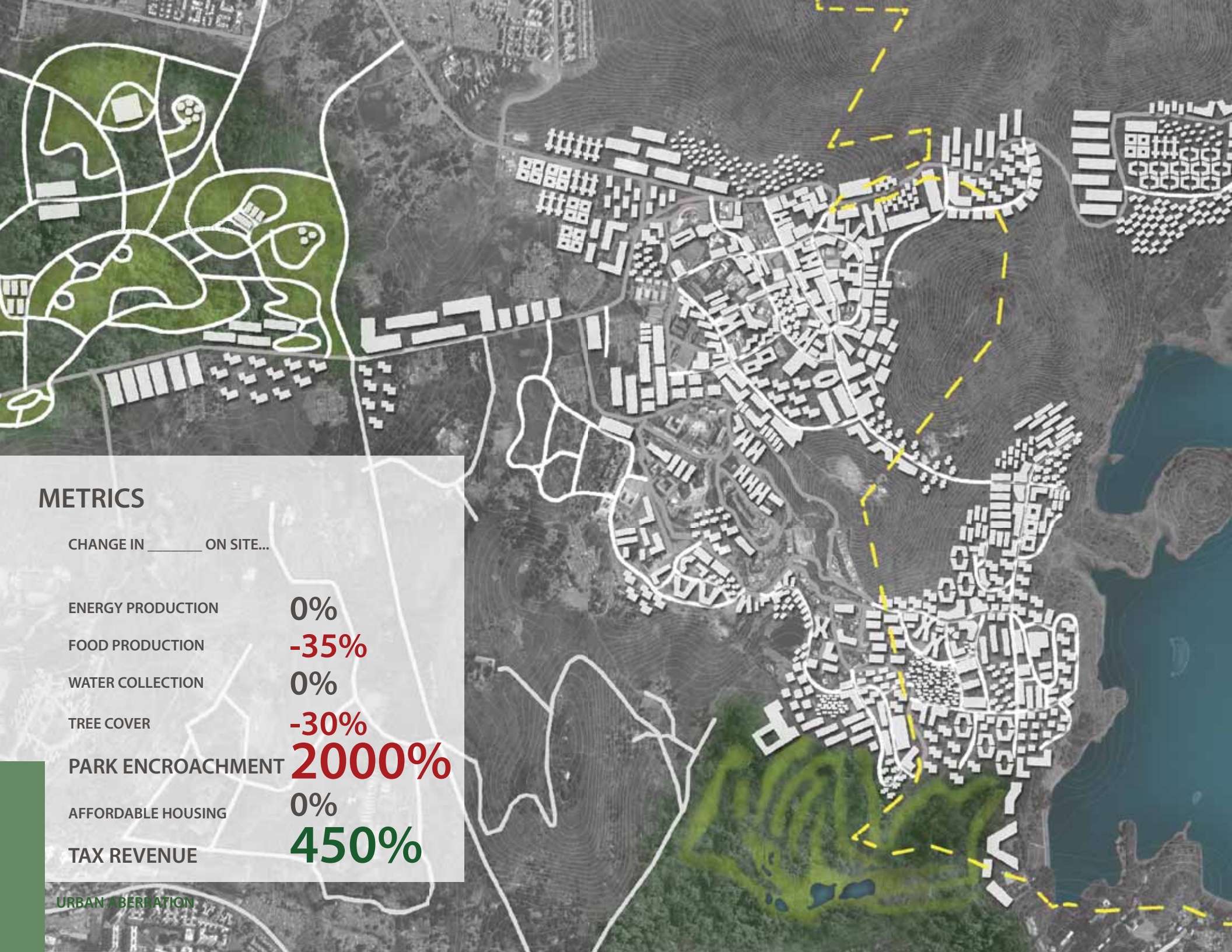
TOURISTS

BOLLYWOOD PRODUCERS

VIEWSHED

URBAN ABERRATION


DENSE, PROFITABLE DEVELOPMENT POTENTIAL
FLAT LAND FOR BUILDING
ACCESS TO INFRASTRUCTURE
VIEWS OF THE LAKE AND PARK
VIEWSHED



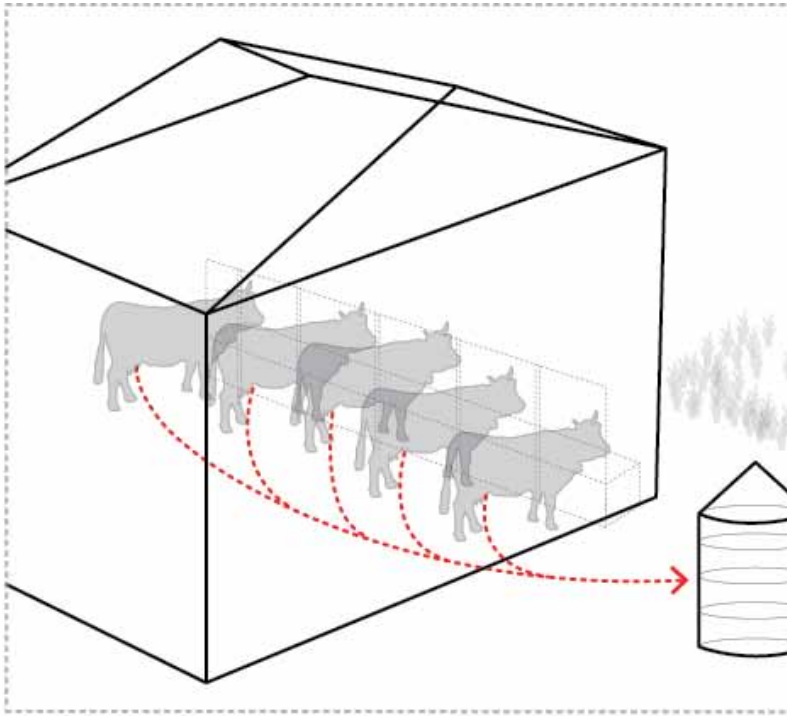
## METRICS

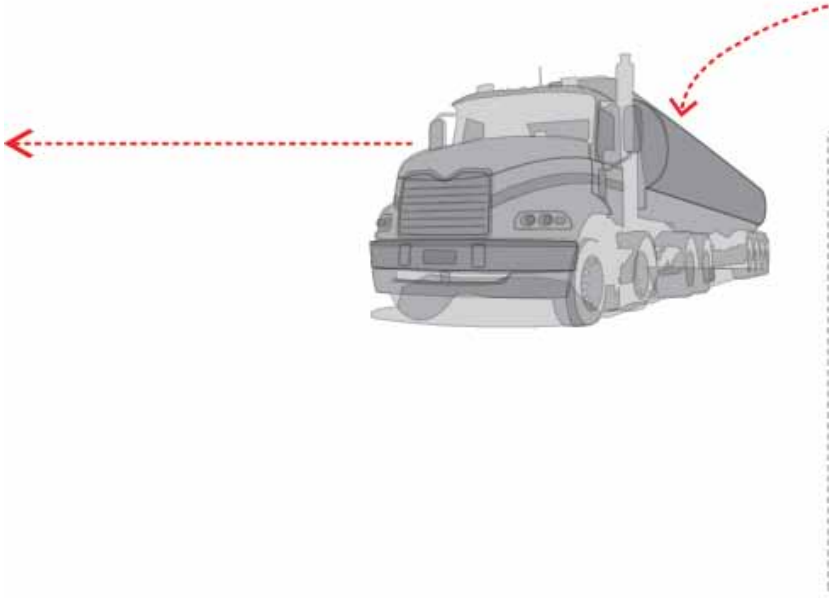
CHANGE IN _____ ON SITE...

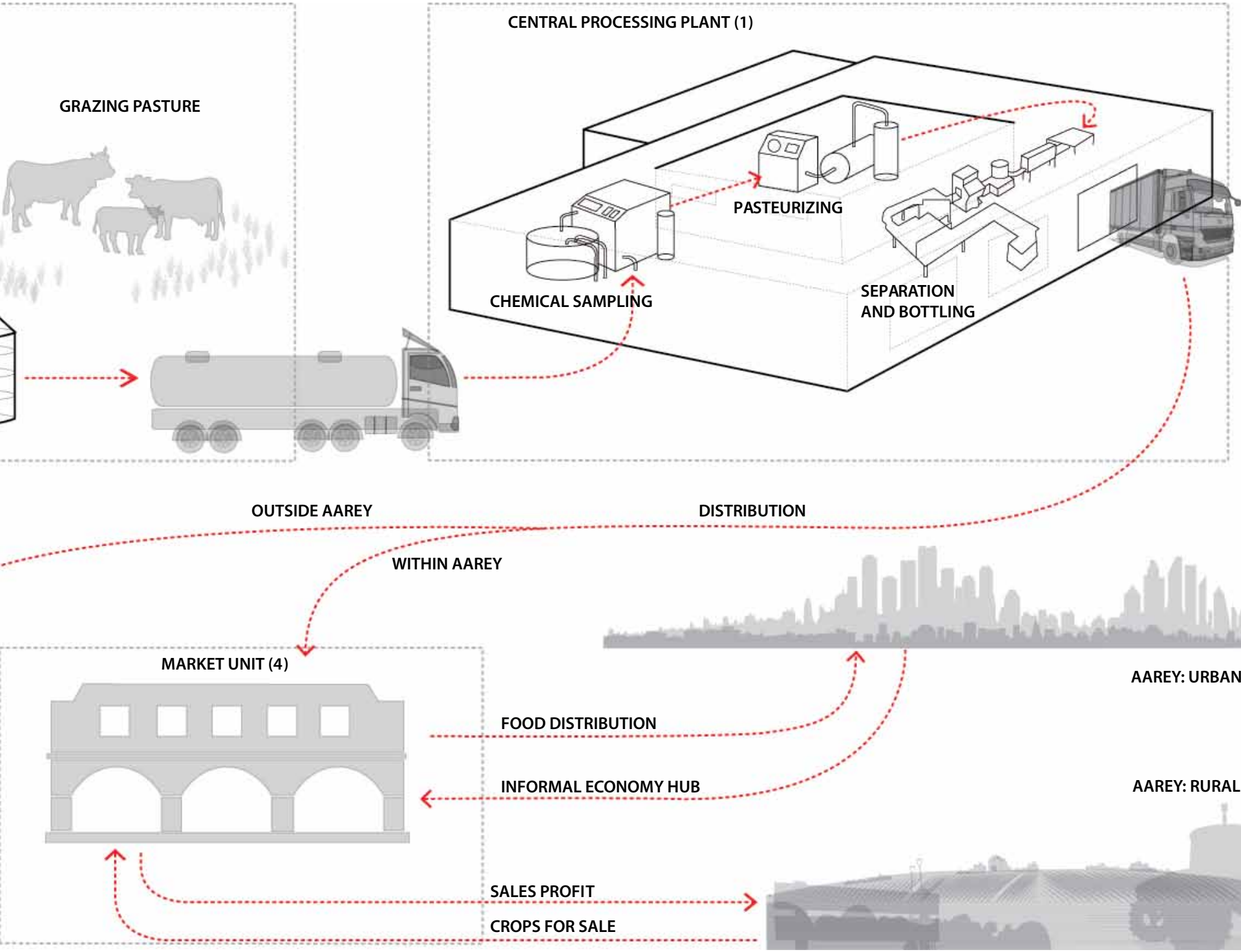
| | |
|---|---|
| ENERGY PRODUCTION | 0% |
| FOOD PRODUCTION | -35% |
| WATER COLLECTION | 0% |
| TREE COVER | -30% |
| PARK ENCROACHMENT | 2000% |
| AFFORDABLE HOUSING | 0% |
| TAX REVENUE | 450% |

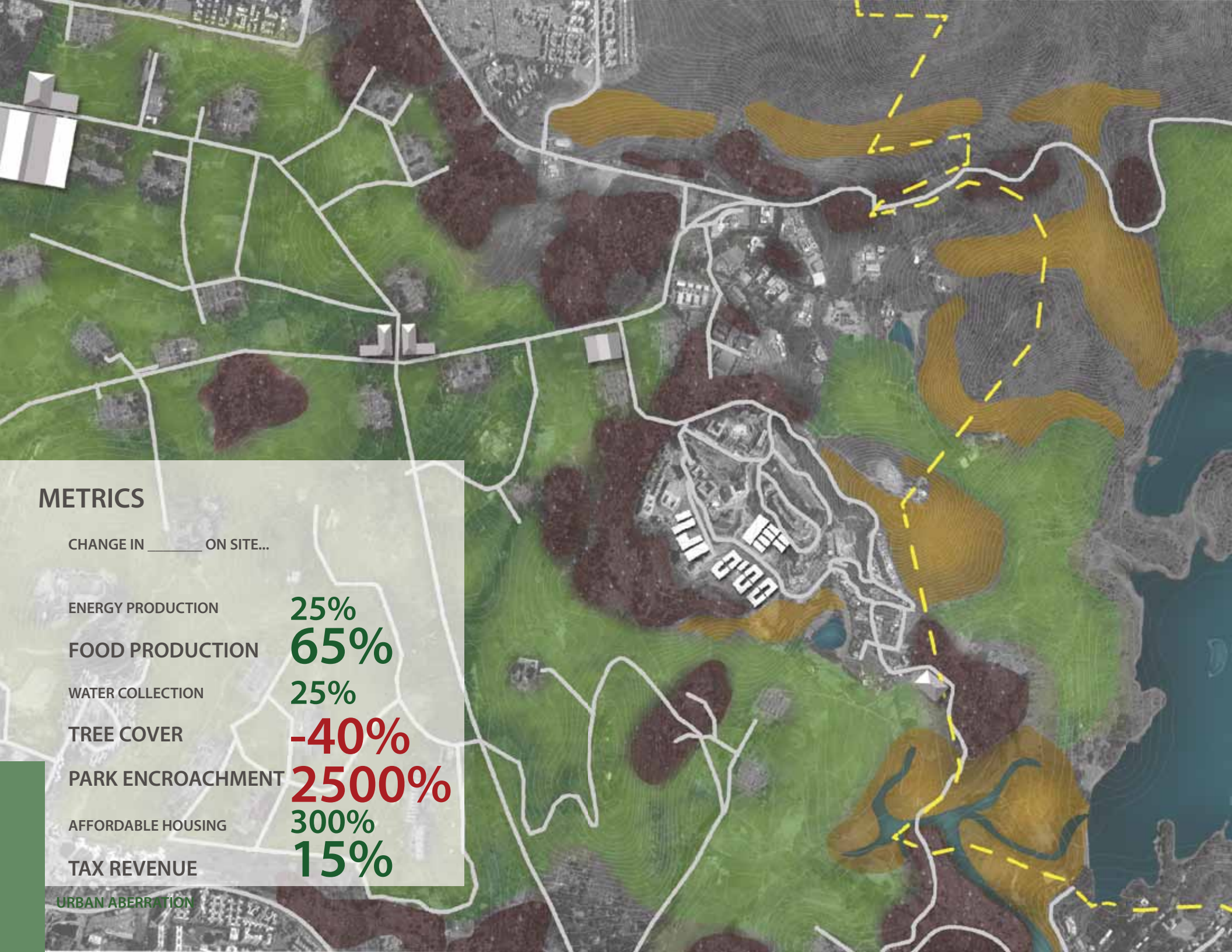
URBAN ABERRATION

## SCENARIO TWO: THE LOCALS' DESIRES




CENTRAL PROCESSING PLANT (1)
GRAZING PASTURE
PASTEURIZING
CHEMICAL SAMPLING
SEPARATION
AND BOTTLING
OUTSIDE AAREY
DISTRIBUTION
WITHIN AAREY
MARKET UNIT (4)
AAREY: URBAN
FOOD DISTRIBUTION
INFORMAL ECONOMY HUB
AAREY: RURAL
SALES PROFIT
CROPS FOR SALE

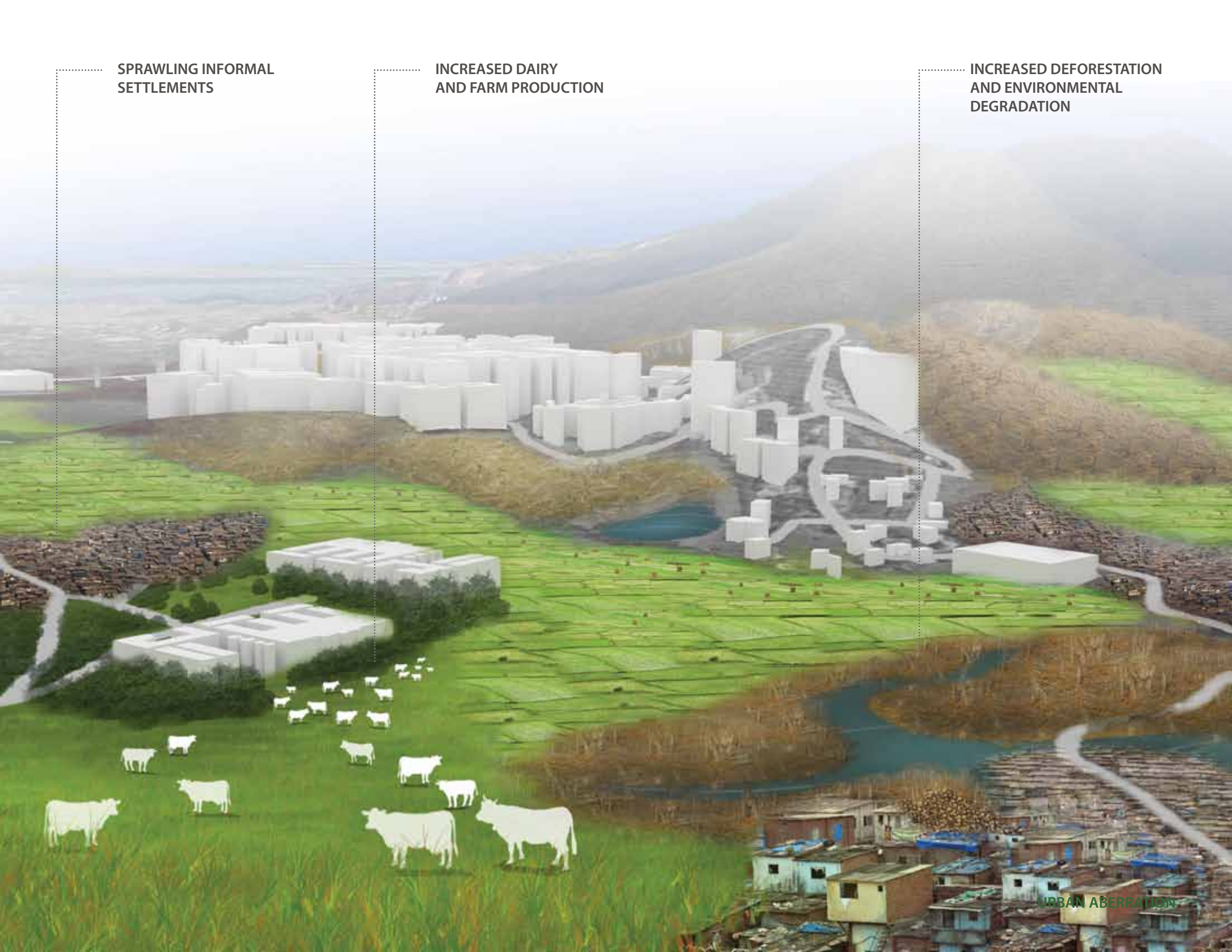


## METRICS

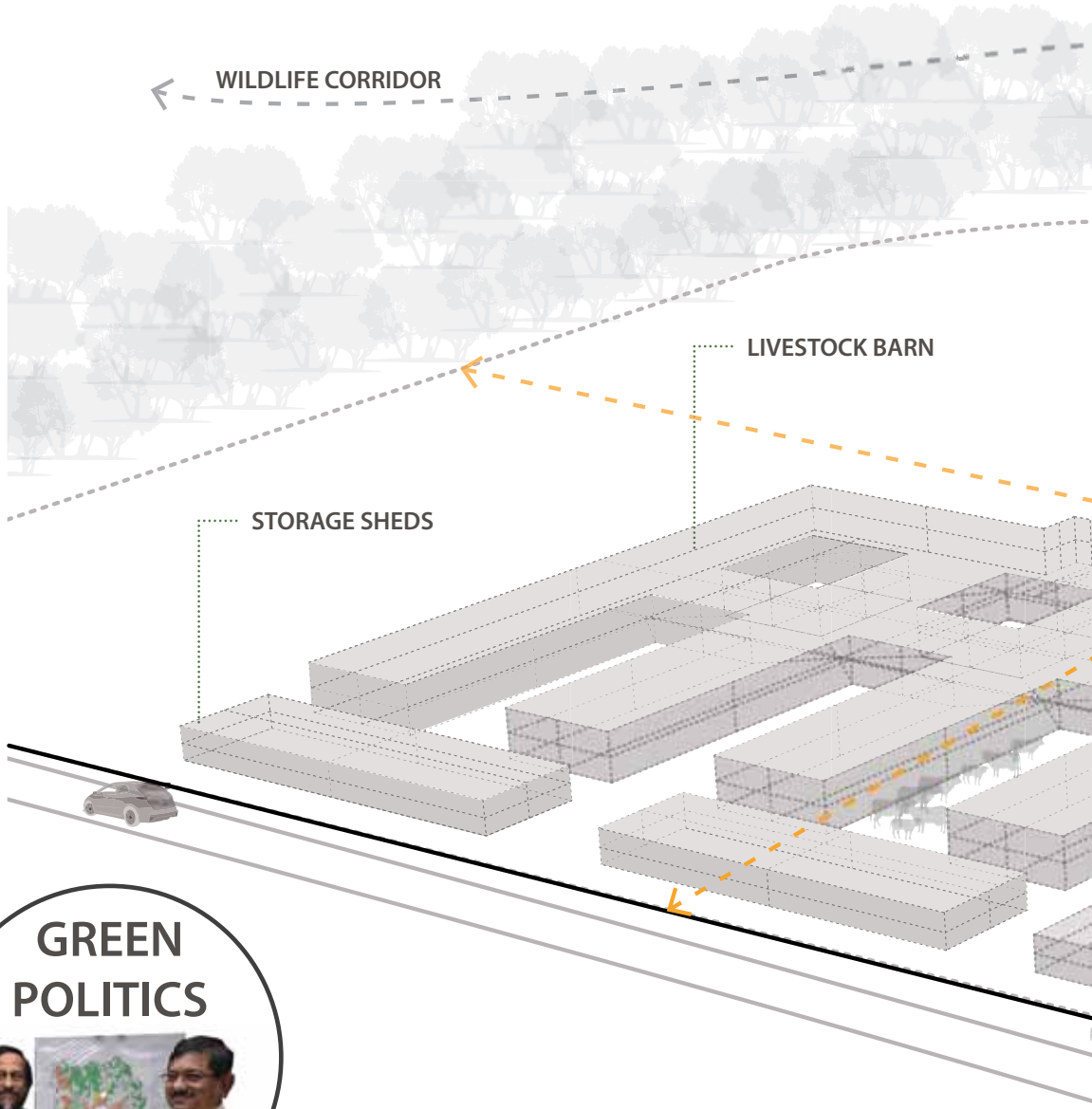
CHANGE IN _____ ON SITE...

| | |
|---|---|
| ENERGY PRODUCTION | 25% |
| FOOD PRODUCTION | 65% |
| WATER COLLECTION | 25% |
| TREE COVER | -40% |
| PARK ENCROACHMENT | 2500% |
| AFFORDABLE HOUSING | 300% |
| TAX REVENUE | 15% |

URBAN ABERRATION


SPRAWLING INFORMAL SETTLEMENTS
INCREASED DAIRY AND FARM PRODUCTION
INCREASED DEFORESTATION AND ENVIRONMENTAL DEGRADATION
URBAN ABERRATION

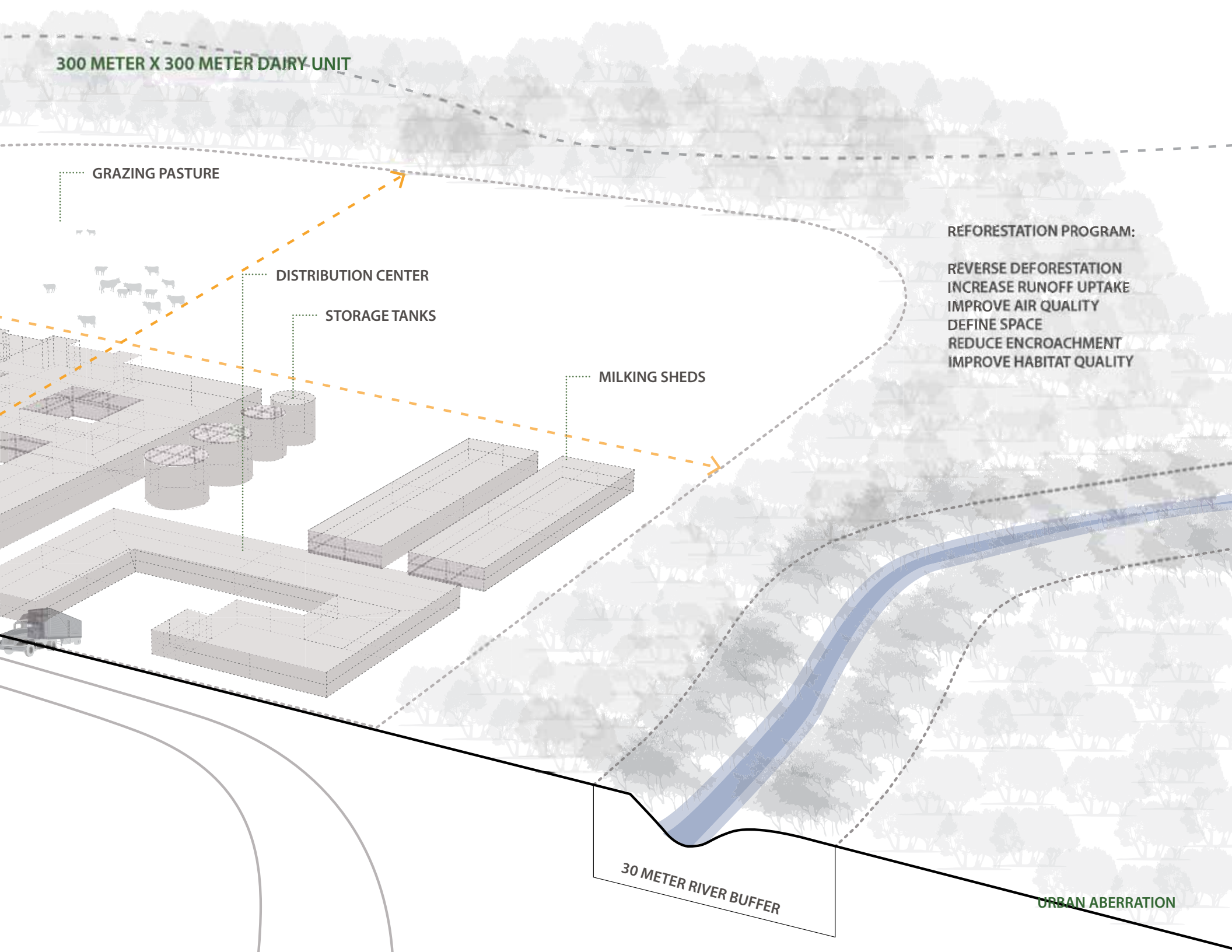
## SCENARIO THREE: GREEN POLITICS' DESIRES

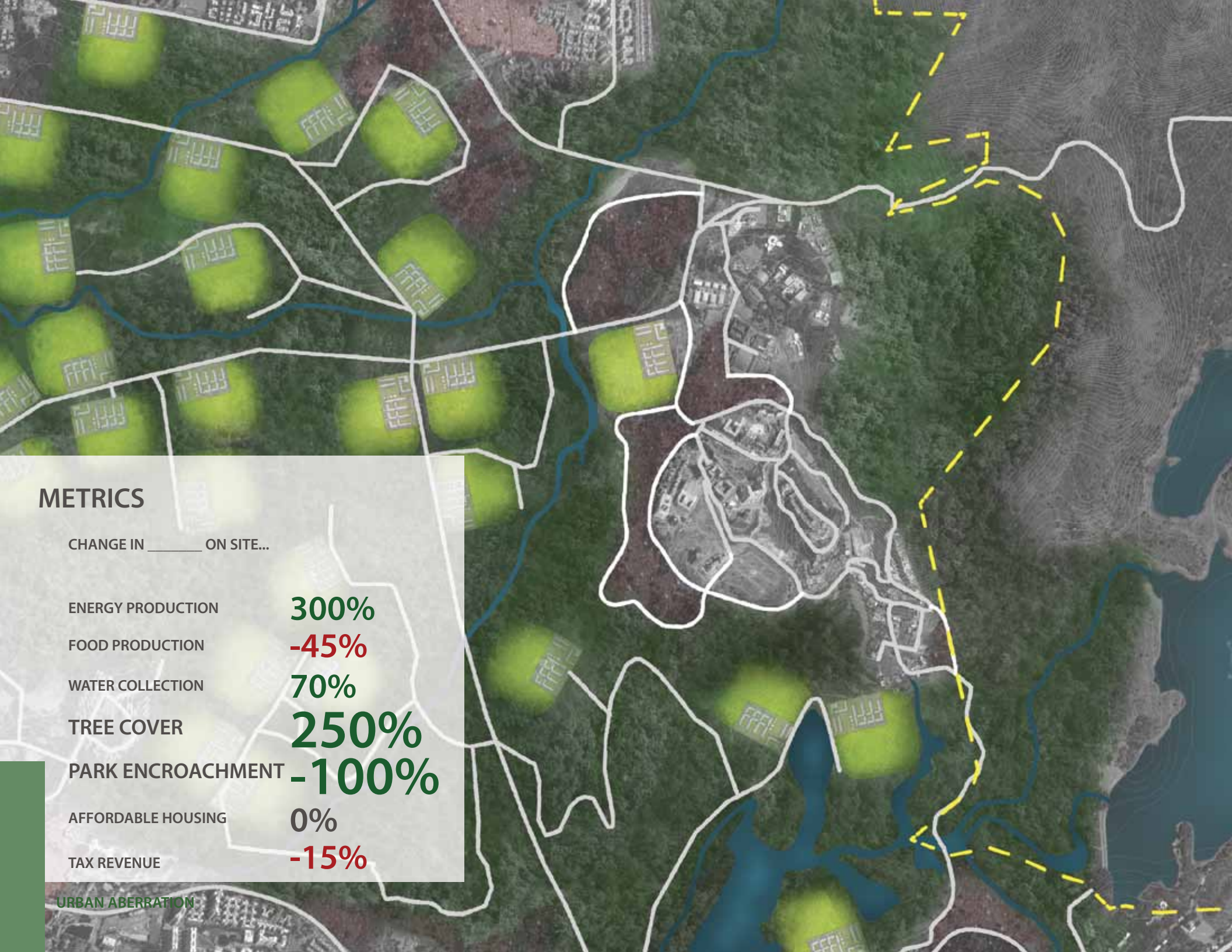



GREEN POLITICS

LOCAL GOVERNMENT

ENVIRONMENTALISTS


300 METER X 300 METER DAIRY UNIT
GRAZING PASTURE
DISTRIBUTION CENTER
STORAGE TANKS
MILKING SHEDS
REFORESTATION PROGRAM:
REVERSE DEFORESTATION
INCREASE RUNOFF UPTAKE
IMPROVE AIR QUALITY
DEFINE SPACE
REDUCE ENCROACHMENT
IMPROVE HABITAT QUALITY
30 METER RIVER BUFFER
URBAN ABERRATION



## METRICS

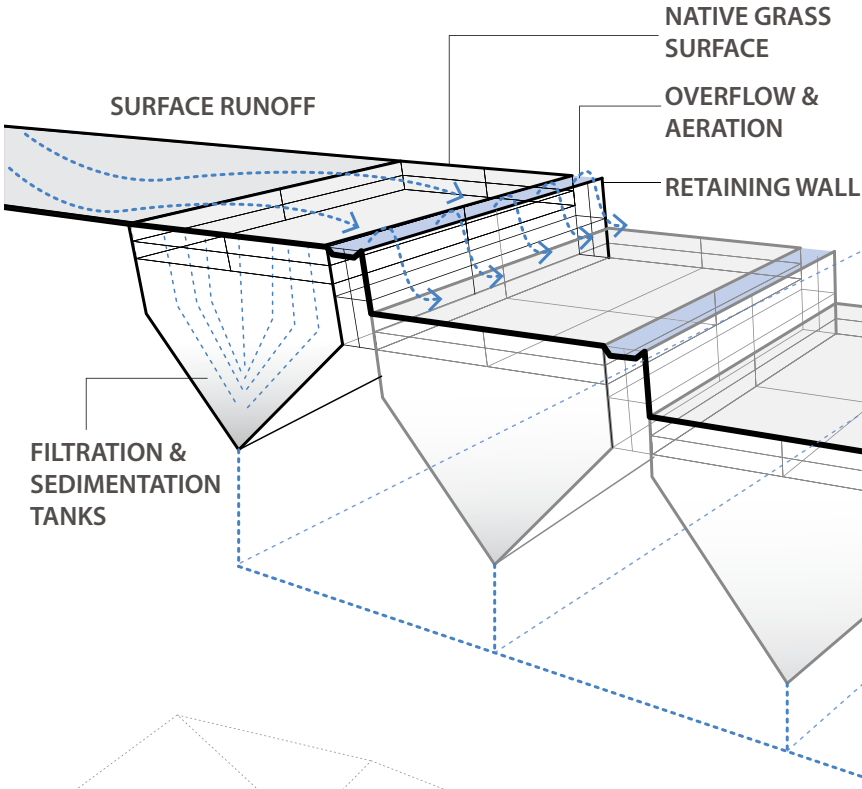
CHANGE IN _____ ON SITE...

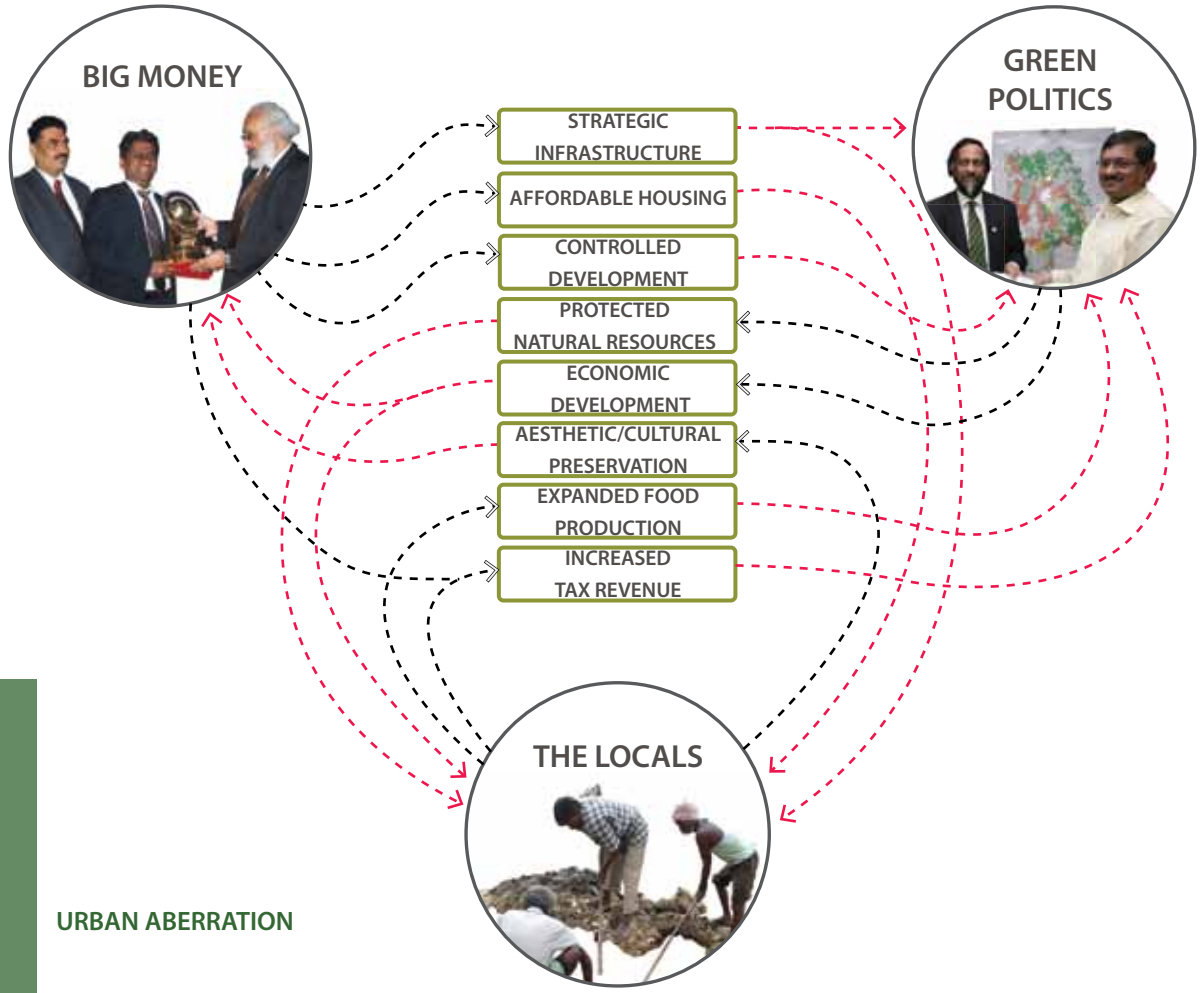
| | |
|---|---|
| ENERGY PRODUCTION | 300% |
| FOOD PRODUCTION | -45% |
| WATER COLLECTION | 70% |
| TREE COVER | 250% |
| PARK ENCROACHMENT | -100% |
| AFFORDABLE HOUSING | 0% |
| TAX REVENUE | -15% |

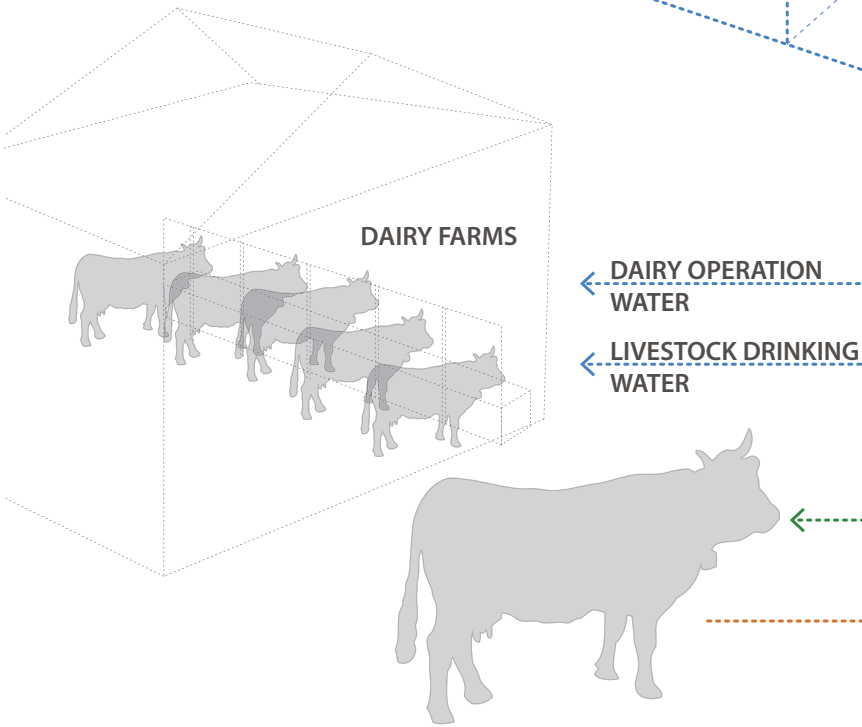
URBAN ABERRATION

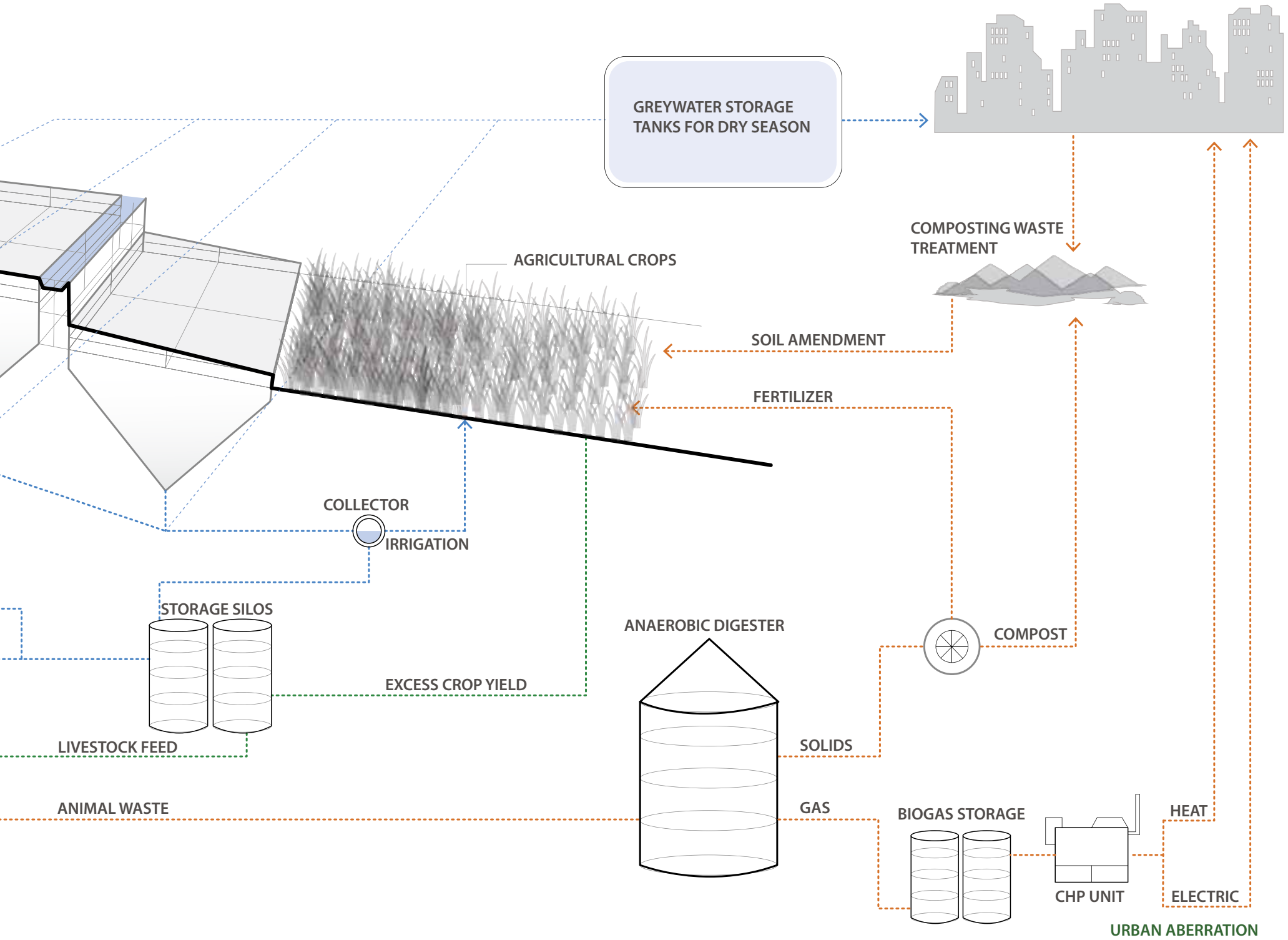
## SCENARIO FOUR: DESIGN AS NEGOTIATION

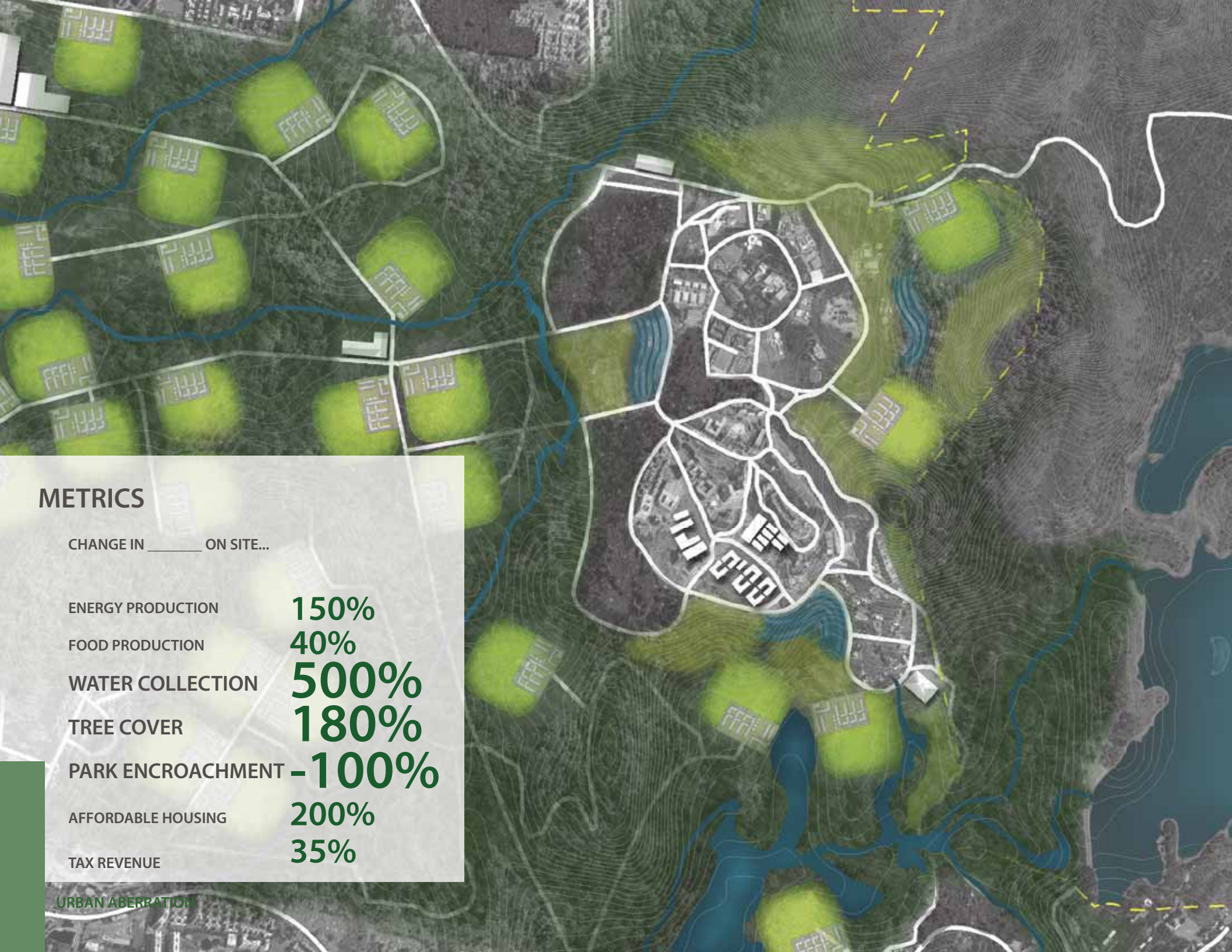
**The final negotiation scenario takes advantage of the potential spatial exchanges between constituent groups by aligning multiple interests. This is done through policy tools similar to incentive and inclusionary zoning for new development as well as through physical design interventions. Design adds value by both defining space and multiplying the productive capacity of the territory. Using a system like this water collection terrace, water connects and aligns constituent groups by collecting water for urban needs during the dry season as well as providing year-round water for agricultural irrigation and dairy operations. Waste from the dairies can be used as fertilizer and processed for both energy and compost waste treatment. These interventions help contain destructive land uses and aid in legitimizing selective densification within this urban aberration.**




GREYWATER STORAGE TANKS FOR DRY SEASON
COMPOSTING WASTE TREATMENT
AGRICULTURAL CROPS
SOIL AMENDMENT
FERTILIZER
COLLECTOR
IRRIGATION
STORAGE SILOS
ANAEROBIC DIGESTER
COMPOST
EXCESS CROP YIELD
LIVESTOCK FEED
SOLIDS
ANIMAL WASTE
GAS
BIOGAS STORAGE
HEAT
CHP UNIT
ELECTRIC
URBAN ABERRATION



## METRICS

CHANGE IN _____ ON SITE...

| | |
|---|---|
| ENERGY PRODUCTION | 150% |
| FOOD PRODUCTION | 40% |
| WATER COLLECTION | 500% |
| TREE COVER | 180% |
| PARK ENCROACHMENT | -100% |
| AFFORDABLE HOUSING | 200% |
| TAX REVENUE | 35% |

**Rather than simply reacting to the rapid changes already occurring within the Aarey Colony, this project rethinks the landscape's relationship to the city and regional ecology to preempt the potential forces acting here. By critically examining this urban aberration within a natural system, the project proposes an alternative strategy to both reveal and enhance the value of this threatened resource.**

## BOUNDARY INSERTIONS


ENERGY PRODUCTION


FOOD PRODUCTION


BOUNDARY ROAD


ANCHOR INSTITUTION


STORMWATER COLLECTION


WASTE MANAGEMENT CENTER


ENVIRONMENTAL MONITORING


PARK BOUNDARY MARKER


PARK OBSERVATION TOWER


FILM SET


RECREATION FACILITY


FLOODING ZONE

## OPERATIONS

1 *urban restructuring*

2 *water management*

3 *define park boundary*