“UPROSE promotes sustainability and resiliency in Brooklyn’s Sunset Park neighborhood through community organizing, education, indigenous and youth leadership development, and cultural/artistic expression.”

Green Industrial Resilient District

“A draft alternative planning proposal for Sunset Park ...that looks at the deficiencies of the proposed Industry City rezoning and presents an agenda that seeks to achieve a Just Transition for Sunset Park”

“...A green industrial sector that focuses on the retention and growth of the industrial sector in Sunset Park can address the two-fold goal of addressing climate change and promoting quality working class jobs with opportunities for professional advancement.”

GRID Goals
1. Preserve the industrial character of Sunset Park’s waterfront.
2. Retain and create well-paid working class jobs.
3. Support green industrial innovation.
4. Promote climate resiliency and Just Transition through circular
Green Resilient Industrial District

- Preserve the industrial character of Sunset Park’s waterfront.
- Create professional and trade schools for local climate job training and workforce development in renewable energy, energy efficiency retrofit, and green manufacturing.
- Ensure local job and funding benefits from city and state climate policies.
- Make manufacturing the principle or “main” use and only allow office and retail and accessory, or “complementary” use with size restrictions.
- Outlines how to use the industrial sector as the economic engine to build for climate adaptation and mitigation.
- Pilots and operationalizes climate policies, programs, and plans to maximize economic, environmental, and health benefits for Sunset Park residents.

Industry City’s Rezoning Proposal (197-C Plan)

- 900,000 square feet of new luxury and big box retail space.
- 625,000 square feet for a new high school located in the floodzone and brownfield area.
- 2 new hotels with 420 rooms to make Industry City a “tourist destination.”
- Unlimited development of retail and office that will push out manufacturing businesses.
- Does not integrate climate adaptation or mitigation strategies and increases risk and vulnerability for the Sunset Park community.
- Is inconsistent with city, state, and national climate policies and mandates that aims to preserve the industrial sector, develop.

Our Insights

- Provide more and Retain Manufacturing/Industrial Jobs
- Create Sustainability Opportunities For Energy and Jobs
- Create A Center That Resonates With The People
Population Data

RACE + ETHNICITY

LIVE LABS

Sunset Park Research Center

Workshop #3

KEY

<table>
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<tr>
<th>Ethnicity</th>
<th>0-17</th>
<th>18-24</th>
<th>25-44</th>
<th>45-64</th>
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<tr>
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<td>9%</td>
<td>39%</td>
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<tr>
<td>White</td>
<td>9%</td>
<td>2%</td>
<td>9%</td>
<td>23%</td>
<td>6%</td>
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132,721 people

one dot = 120 people
Employment and Education
Most common level of education and occupation amongst people age 25 and older
ECONOMY OF SUNSET PARK

INCOME AND COMMERCIAL OVERLAYS

Median Household Income By Tract (USD)

- **57K - 66K**
  - (+12.6% BK ; + 4.77% NYC)
- **47K - 57K**
  - (- 4.64% BK ; - 14% NYC)
- **38K - 47K**
  - (- 20.3% BK ; - 31.5% NYC)
- **28K - 38K**
  - (- 49.5% BK ; - 63% NYC)

COMMERCIAL OVERLAY

- Bay Ridge
- Channel
- Bush Terminal
- Piers Park
- 65TH ST. YARD
- (FORMER RAILWAY CAR FLOAT)
- BROOKLYN ARMY TERMINAL
- FOOD WAREHOUSE DIST.
- INDUSTRY CITY
- Greenwood Cemetery
- Sunset Park
- Workshop #2
Programatic Relationships

Residential

Energy

Waste

Transportation

Oats

Manufacturing

Community

Research and Education

innovation

powers

anaerobic digestion

collect

transit

export

visit

innovation

affordable housing

learn and participate

jobs

straw

product

product

innovation

produces

visit

produces

produces

produces

produces

produces

produces

produces

produces

produces

produces

produces
Sectional Programatic Relationships

Oats  Waste  Transportation  Oats  Manufacturing  Oats  Residential  Commercial
# PROGRAM BREAKDOWN

## Square Footages & Occupancy

<table>
<thead>
<tr>
<th>Research Center Program</th>
<th># of Half Blocks</th>
<th>Gross Area (sf)</th>
<th>Efficiency (%)</th>
<th>Net Area (sf)</th>
<th>Occupancy (sf/ per)</th>
<th>Total Occupancy</th>
<th>Gross in Model</th>
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<tbody>
<tr>
<td><strong>Buildings:</strong></td>
<td></td>
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<tr>
<td>Commercial Office/ Industrial</td>
<td>6</td>
<td>1,050,000</td>
<td>60</td>
<td>630,000</td>
<td>100</td>
<td>10,500</td>
<td>1080,000 (360K X 3)</td>
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<tr>
<td>Residential</td>
<td>2</td>
<td>600,000</td>
<td>60</td>
<td>360,000</td>
<td>200</td>
<td>3,000</td>
<td>774,000 (258K X 3)</td>
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<tr>
<td>Educational</td>
<td>2</td>
<td>750,000</td>
<td>67</td>
<td>502,500</td>
<td>20</td>
<td>25,125</td>
<td>860,000 (172K X 5)</td>
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<tr>
<td>Retail</td>
<td>1.25</td>
<td>450,000</td>
<td>70</td>
<td>315,000</td>
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<td>7,500</td>
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<td>Parking</td>
<td>1</td>
<td>150,000</td>
<td>75</td>
<td>112,500</td>
<td>200</td>
<td>750</td>
<td>98,000</td>
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<td><strong>Outdoor Space:</strong></td>
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<td>Public Open Space</td>
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<tr>
<td>Esplanade/ Waterfront</td>
<td>TBD</td>
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</table>

- **Notes:**
  - Educational Occupancy: 20 net
Site Energy Production and Distribution

- 18,000 kg oats straw waste
- 2,632,080 kwh total electricity
- 2,622,000 kwh electricity
- 13,500 kwh heat
- 600 L/kg methane yield
- 1,0080 kwh electricity
- 2185 TON waste harvested
- 280 L/kg methane yield
- 10,080 kwh electricity

Electricity to 1000 residents
Above 157K/sqmile = 1000 / Block
Above 118K/sqmile = 750 / Block
Above 78K/sqmile = 500 / Block
Above 39K/sqmile = 250 / Block
Below 39K/sqmile = 250 / Block

3000 Residents Energy
Waste
1000's Energy

3000 Residents Energy
Waste
1000's Energy

WASTE ENERGY
NEIGHBORHOOD POPULATION

Below 39K/sqmile

LIVE LABS
Sunset Park Research Center
Resiliency
Main Tactics

Bioswale Along Main Axis
- Select native plants
- Water runoff
- Layer of sand & soil
- Water collection
- Drainage pipe

Scape’s Living Breakwaters
- Reef Ridges
- Living Breakwaters
- Bioenhanced Natural Units
- Scape’s Living Breakwaters
Site Water Diagram
Gallons of clean and grey water per day per building program and waterfront design

12,540,000 gallons/day (114 per 1000 sq f ref. EIA)
7,524,000 gallons greywater

12,390,000 gallons / day
(59 per 1000 sq f ref. EIA)
7,434,000 gallons greywater

10,290,000 gallons/day
(49 per 1000 sq f ref. EIA)
6,174,000 gallons greywater

20,100,000 gallons / day
(40 per 1000 sq f ref. EIA)
12,060,000 gallons greywater

9,576,000 gallons/day
(114 per 1000 sq f ref. EIA)
9,576,000 gallons greywater

9,576,000 gallons/day
(114 per 1000 sq f ref. EIA)
9,576,000 gallons greywater

Living Breakwaters

Calm water

Sedimentation
Education Building
Site Isometric
**Program Massing**

Exploded Diagram

### Sunset Park Research Center - Education Building Program

<table>
<thead>
<tr>
<th>Program</th>
<th>SQFT</th>
<th>Class Room + Lab</th>
<th>28000</th>
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<tbody>
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<td>Vertical Green House</td>
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<tr>
<td>Farm Lab</td>
<td></td>
<td>9680</td>
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<tr>
<td>Roof Garden</td>
<td></td>
<td>37600</td>
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<tr>
<td>Food Court + Cafe</td>
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<td>10260</td>
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<tr>
<td>Auditorium</td>
<td></td>
<td>12350</td>
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<tr>
<td>Services</td>
<td></td>
<td>6840</td>
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<td>Total</td>
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- Rooftop Greenhouse
- Rooftop Garden
- Class Room + Admin
- Vertical Greenhouse
- Loading + Services
- Cafe + Library
Building Section
Section Looking South

- Roof Garden
- Green House
- 1st Ave.
- Lobby
- Auditorium
- Lab
- Cafe
- Water Front

Sunset Park Research Center
Living Breakwaters
possible channel to collect flood water
oyster hatchery
oyster spat in gabions along shore
living shoreline
 gabion channel to collect flood water