

# A Quick and Dirty Urban Design Methodology

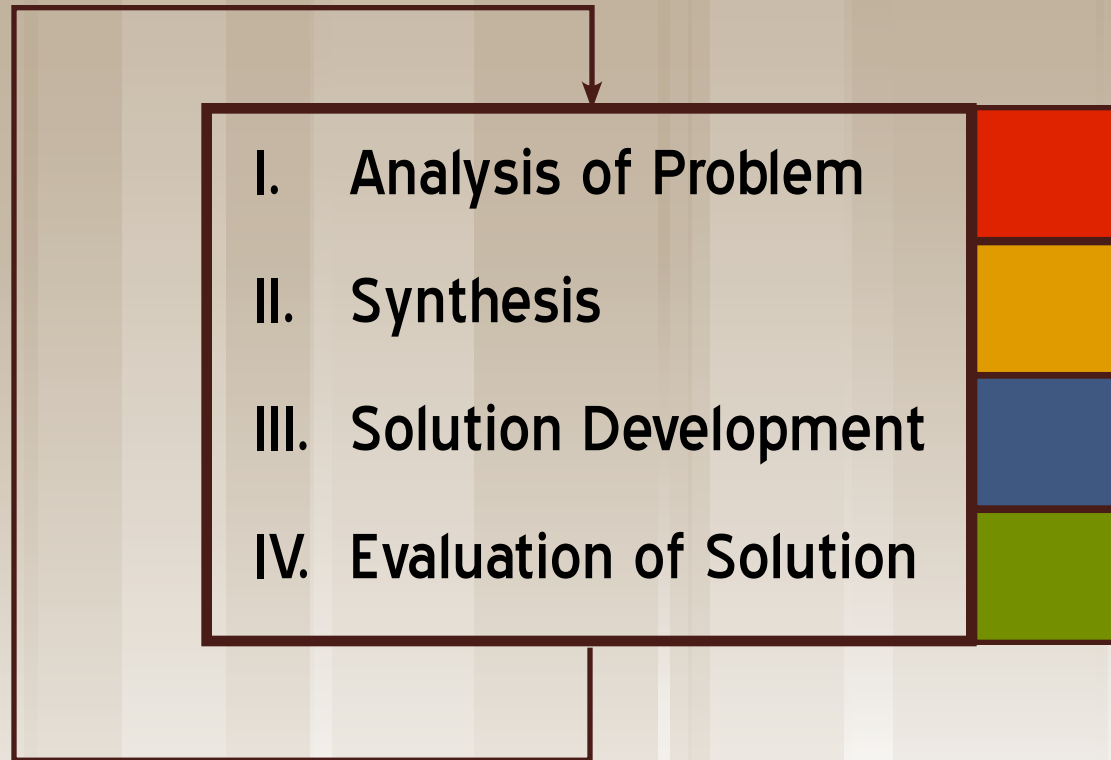
*Tom Bosschaert*

- I. Analysis of Problem
- II. Synthesis
- III. Solution Development
- IV. Evaluation of Solution



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- I. Analysis of Problem**
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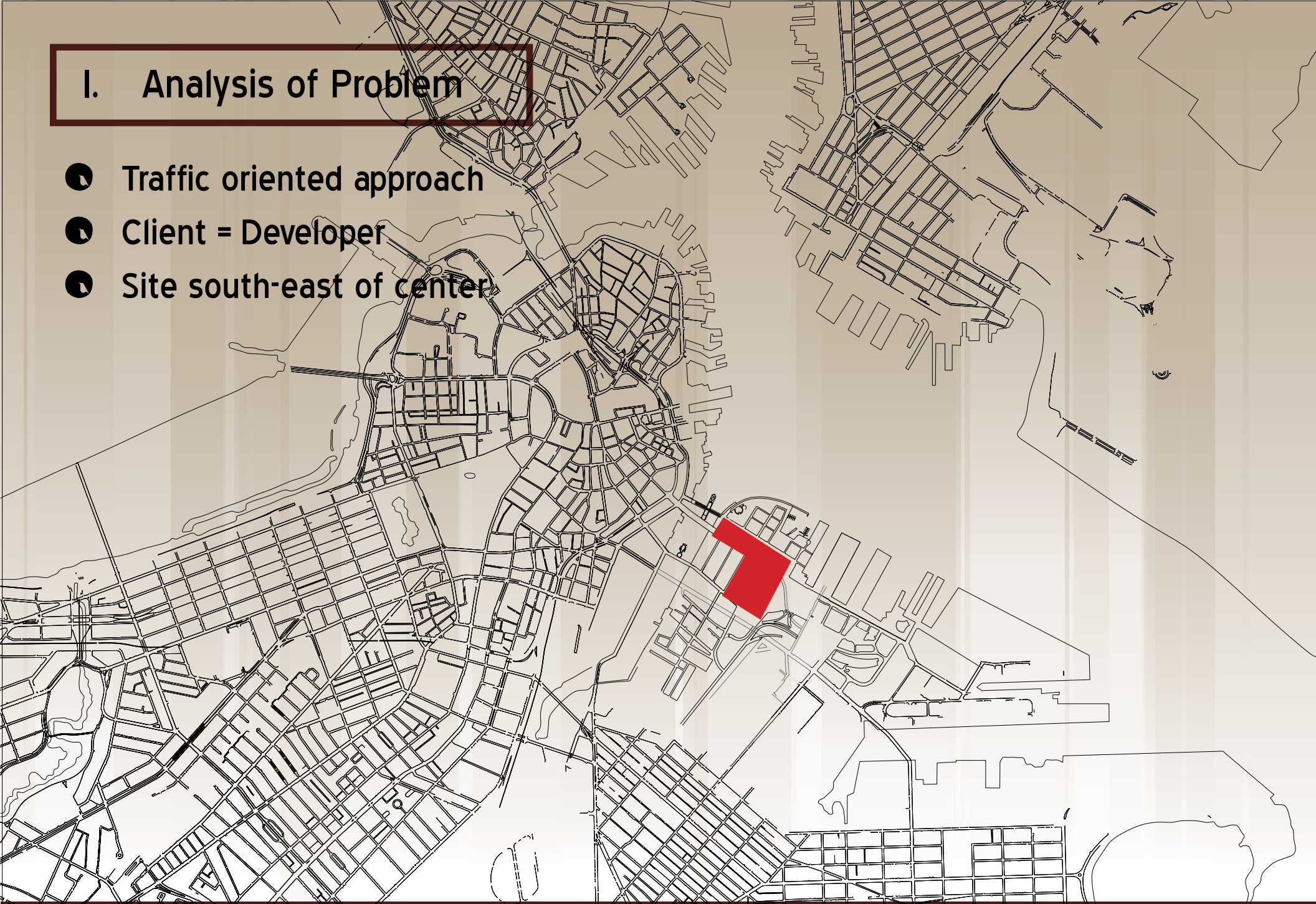
# I. Analysis of Problem

- Map client & involved parties
- Develop design goal (problem formulation)
- List of (testable) requirements
- Site & Literature research
  - Research on different scales (national, regional, local)



# I. Analysis of Problem

- Traffic oriented approach
- Client = Developer
- Site south-east of center



## I. Analysis of Problem

### 🕒 Design goal:

To create a new development on the site that, besides a livable and commercially viable development, will reduce traffic and related pollution issues of the city of Boston.

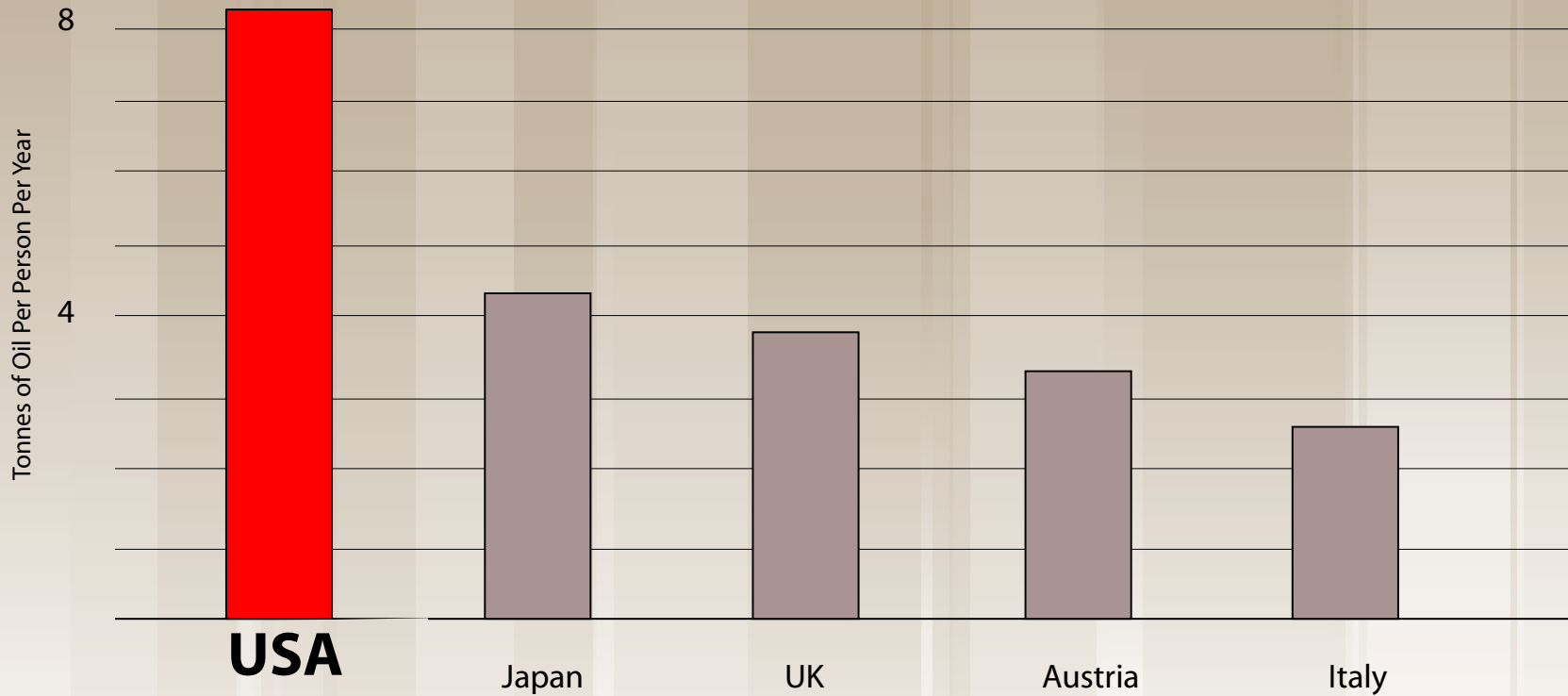
### 🕒 Requirements:

- I. Design livable development (quantify?)
- II. Design Economically viable development
- III. Reduce traffic use around area and city of Boston by a sizeable amount (%?)
- IV. Reduce pollution on the site compared to standard development by x%



# I. Analysis of Problem

Energy Usage Per Capita

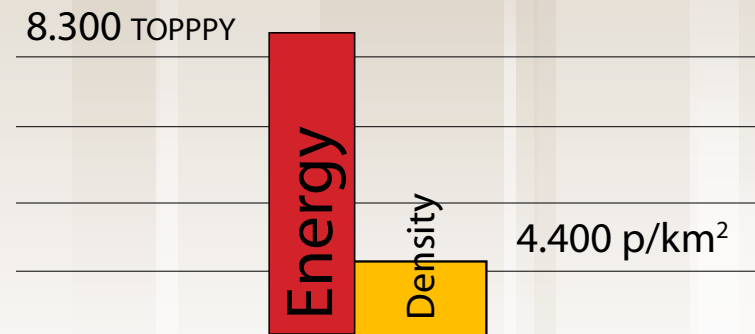
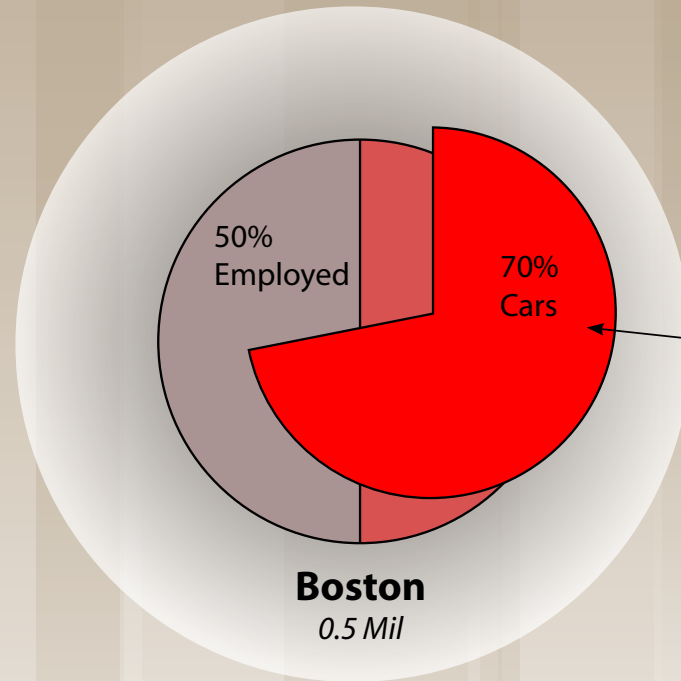


8.3 Tonnes of Oil  
Per Person Per Year





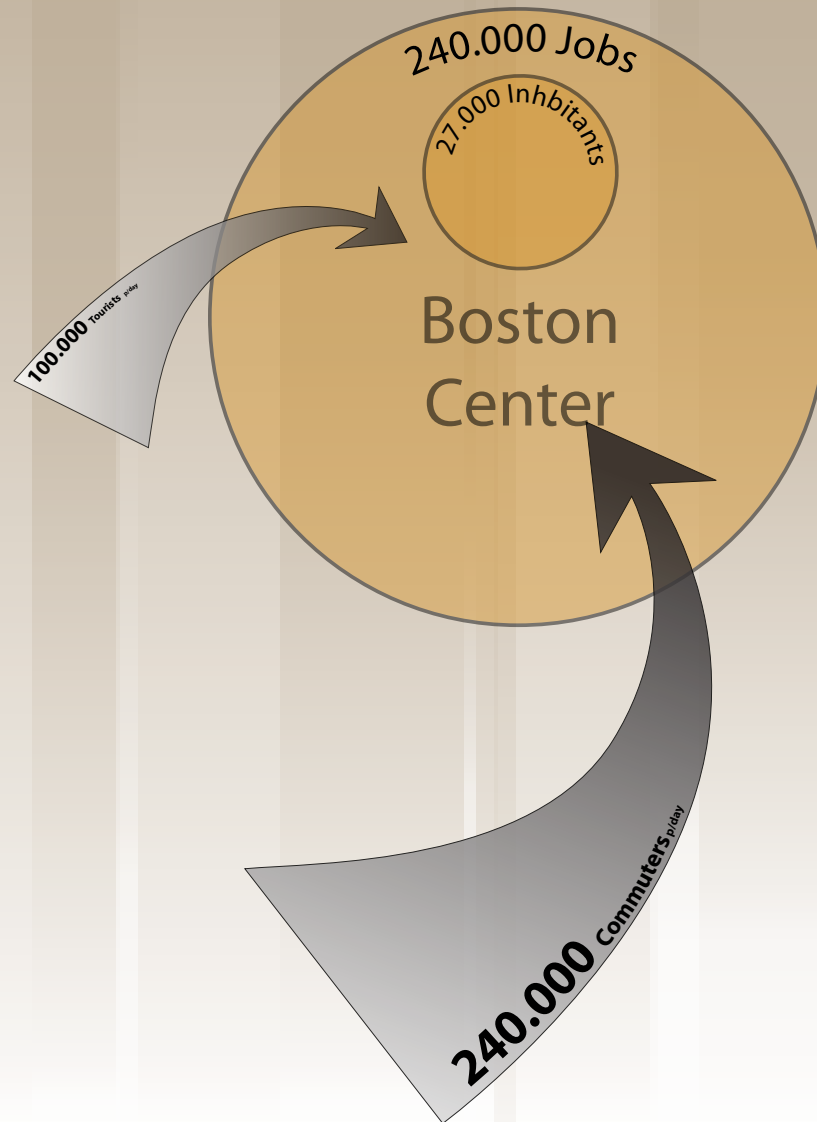
# I. Analysis of Problem



of people in Boston own a **70% Car**



# I. Analysis of Problem



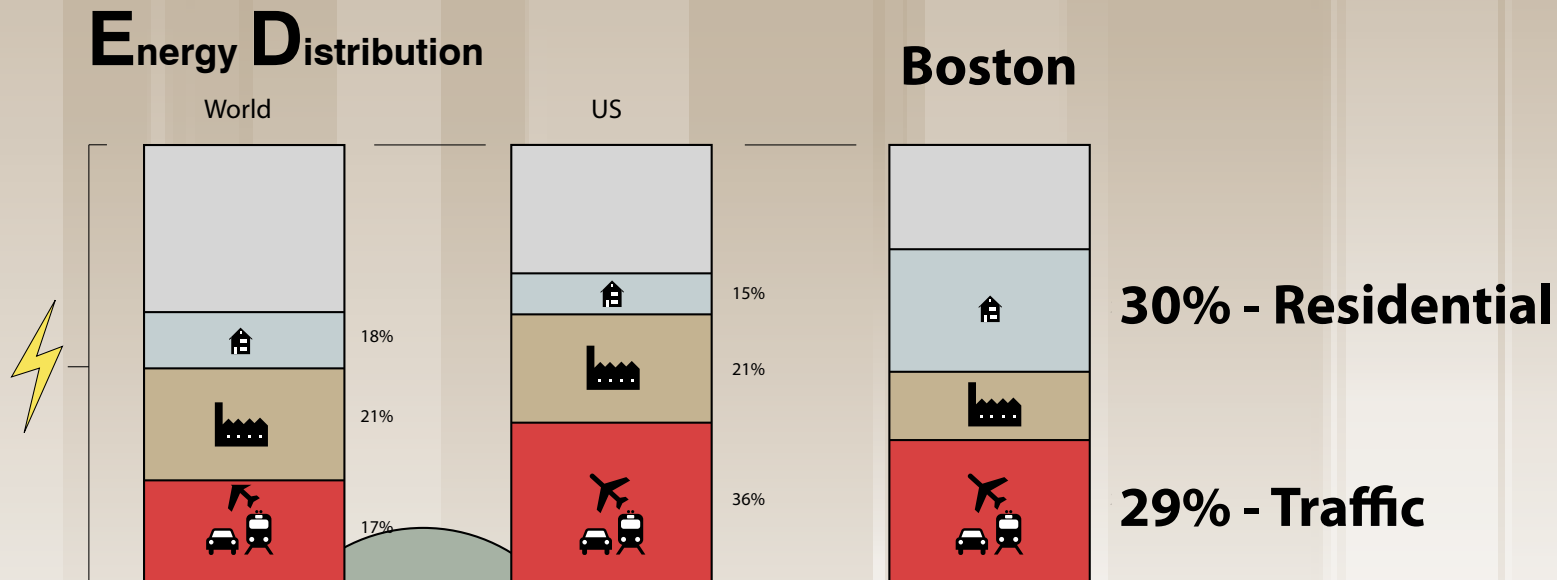
## II. Synthesis

- Synthesise research into understandable and usable data
  - Compiling, visualizing & correlating data
  - Research backgrounds on individual and combined issues
- Apply synthesized data to problem and investigate related issues
- Research similar issues & solutions around the world
- Define areas for design development



## II. Synthesis

- Synthesise research into understandable and usable data
  - Compiling, visualizing & correlating data
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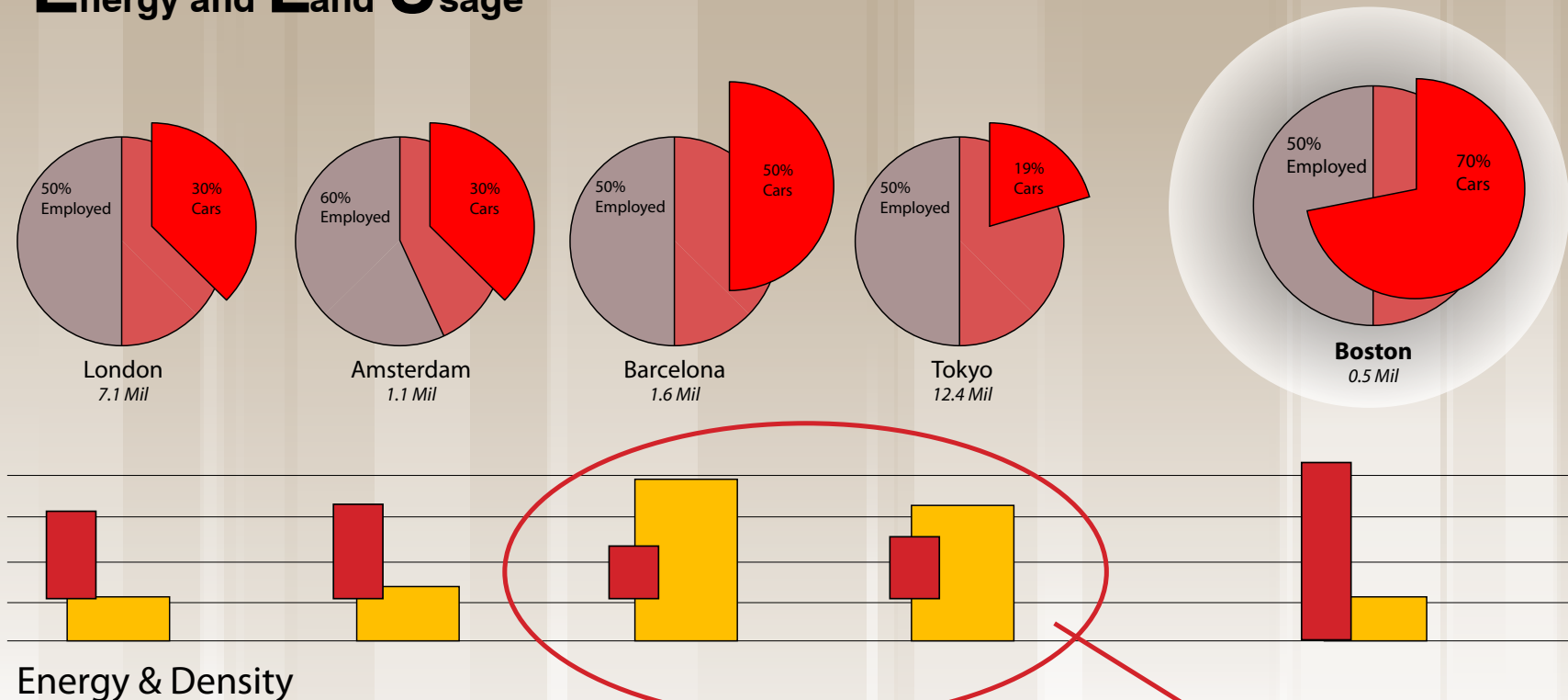
**Decrease Residential  
& Traffic Energy**



## II. Synthesis

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### Energy and Land Usage



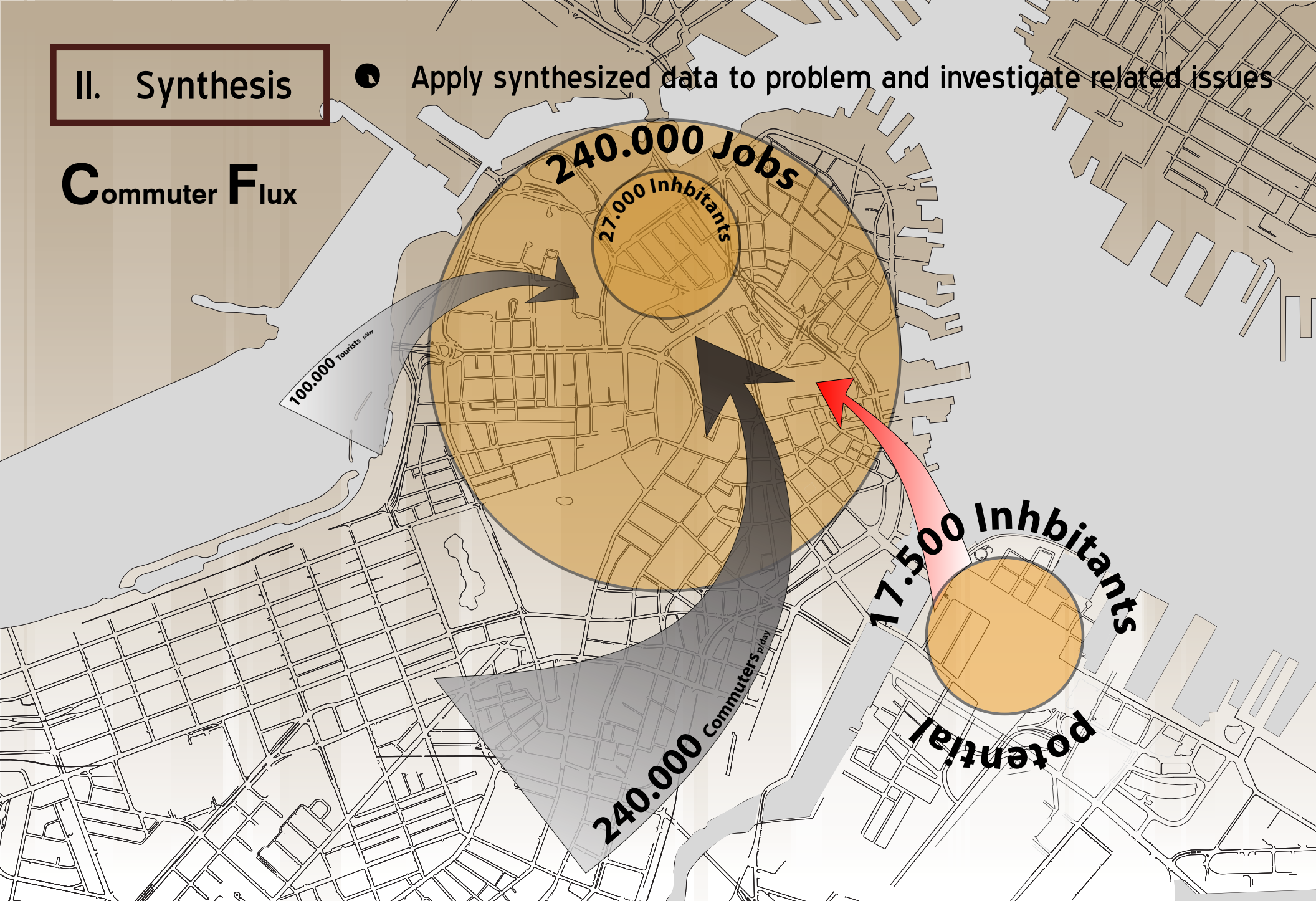
**Residential Energy down → Density UP** No need for cars



## II. Synthesis

- Apply synthesized data to problem and investigate related issues

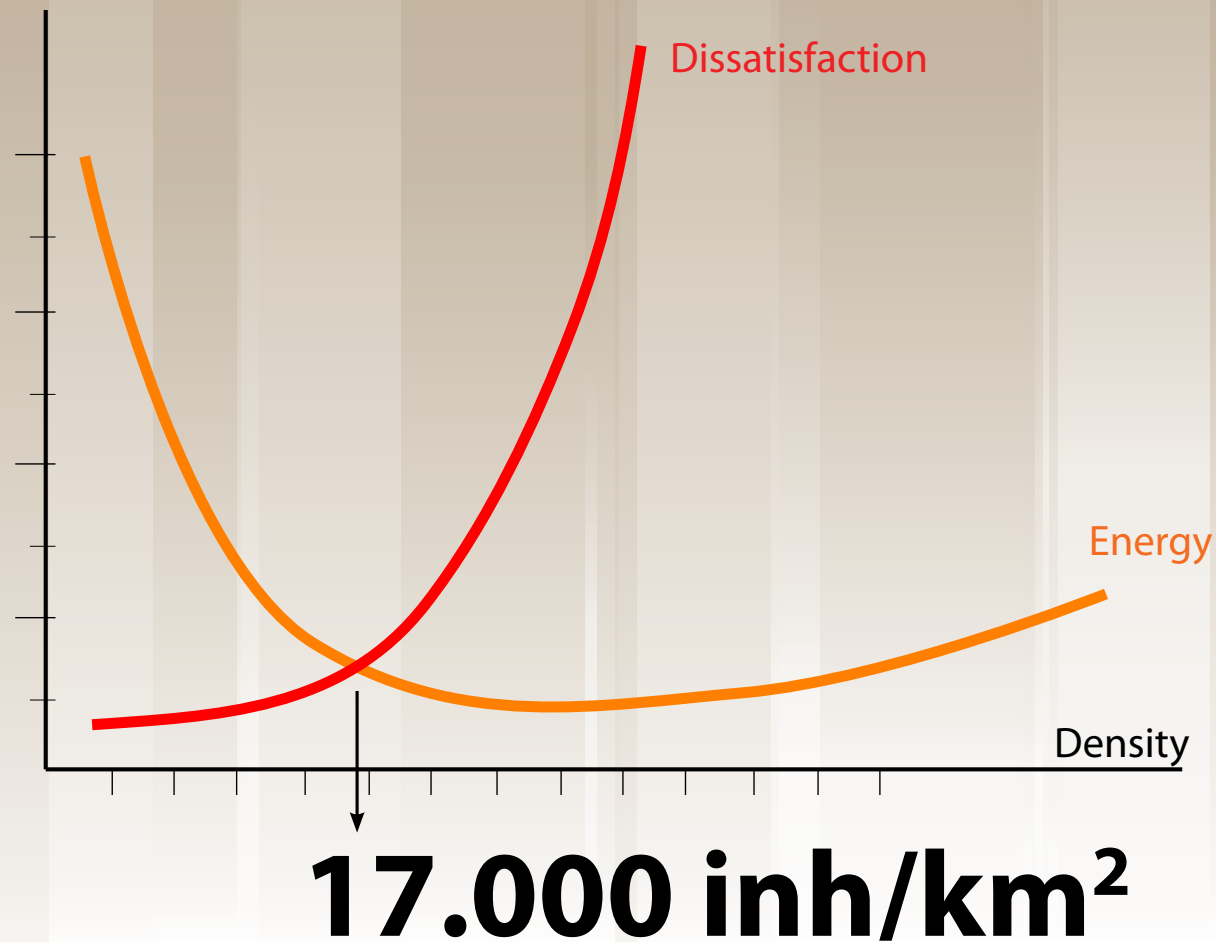
**C**ommuter **F**lux



## II. Synthesis

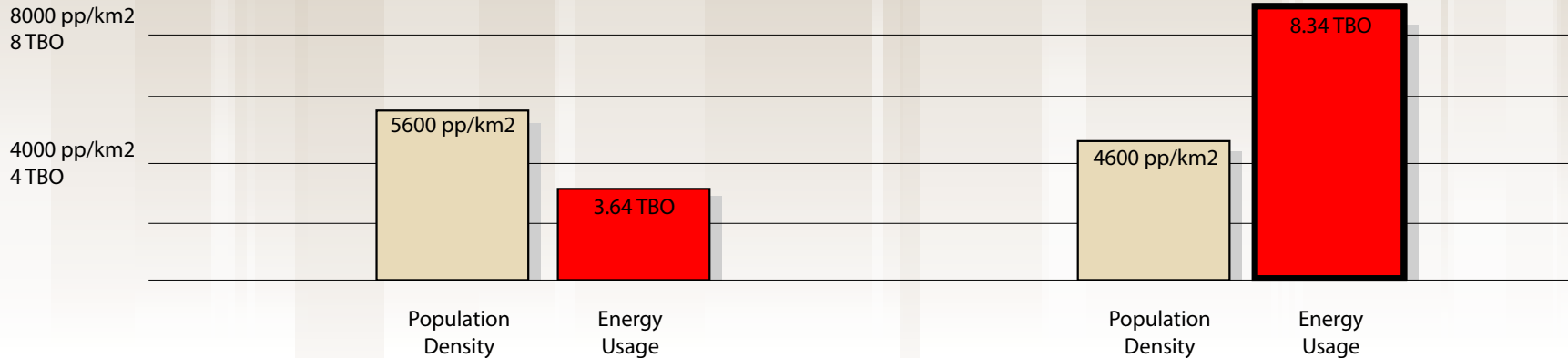
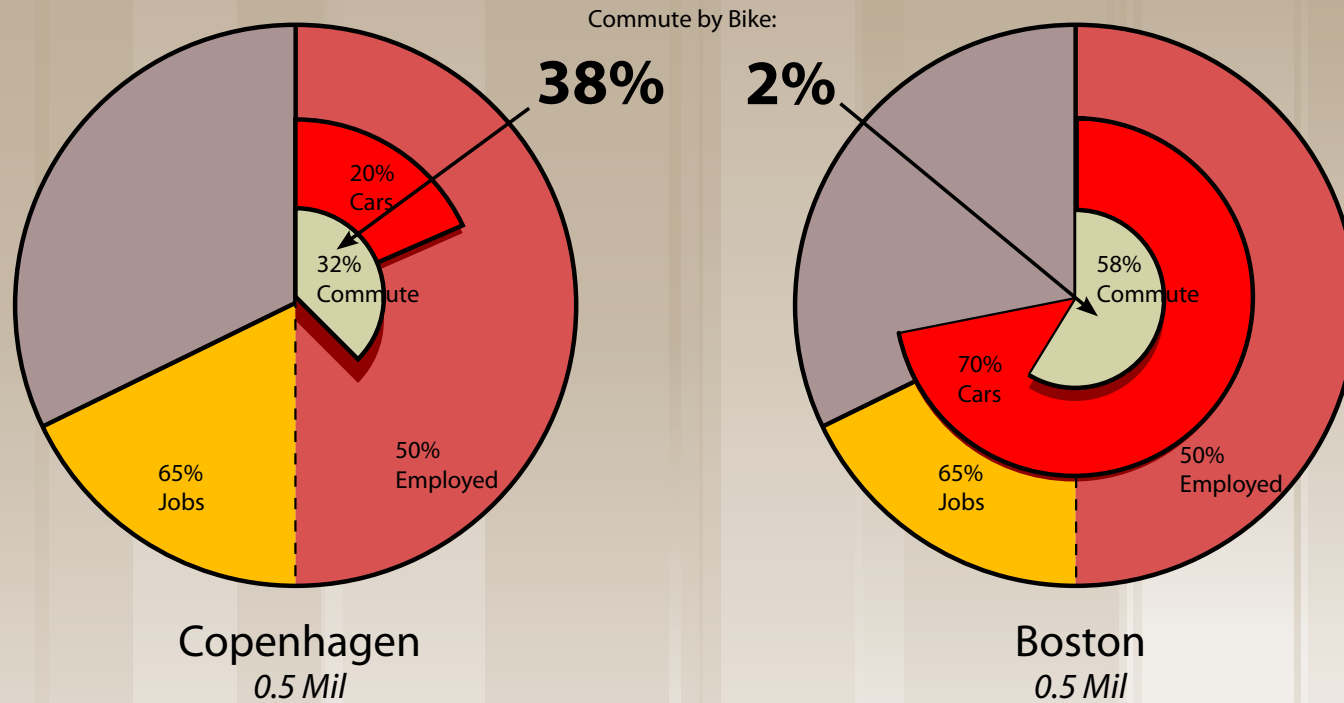
- Synthesise research into understandable and usable data
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### Density & Energy



## II. Synthesis

🕒 Research similar issues & solutions around the world





## II. Synthesis

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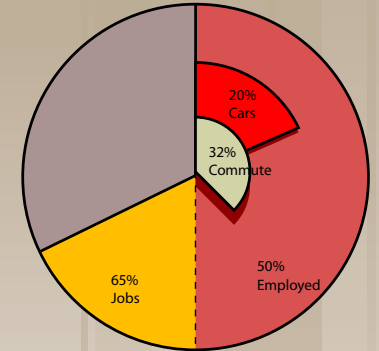


## II. Synthesis

🕒 Research similar issues & solutions around the world



Copenhagen City Center



Copenhagen  
0.5 Mil

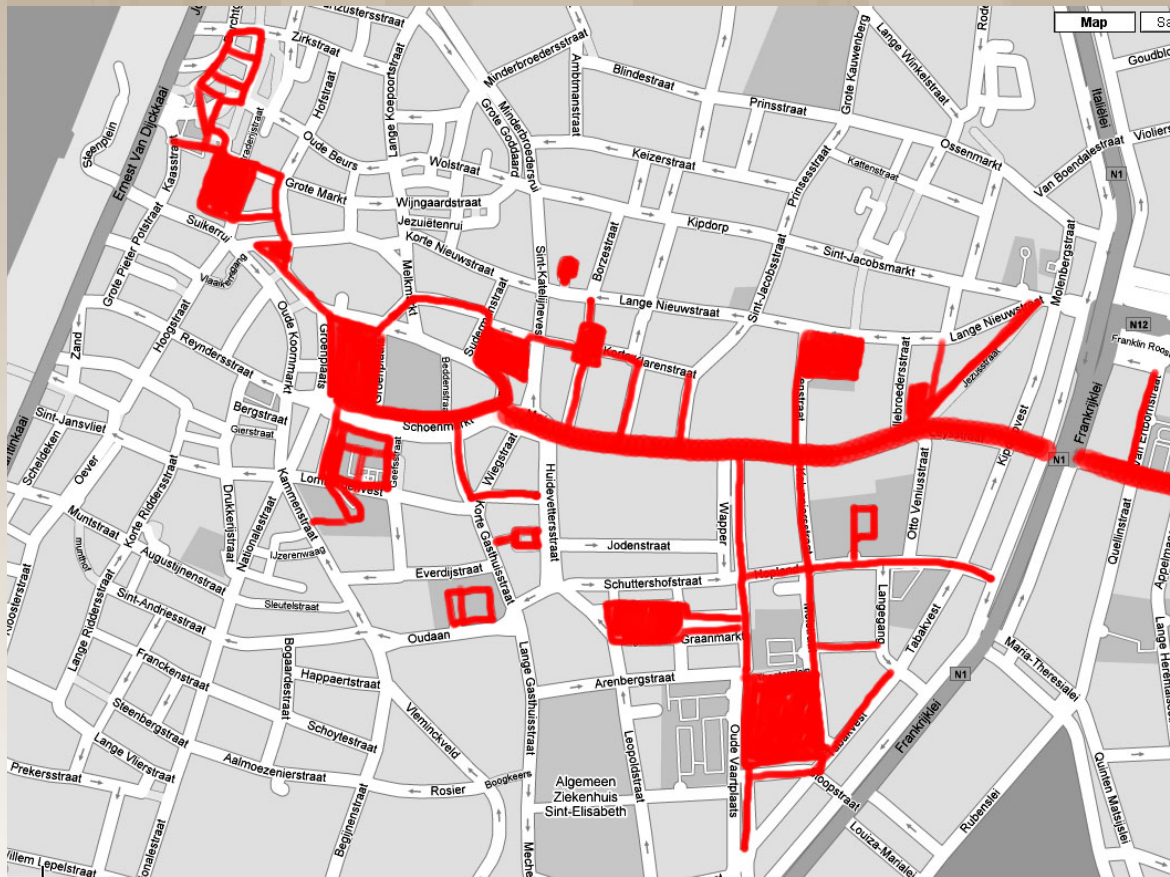
# Copenhagen



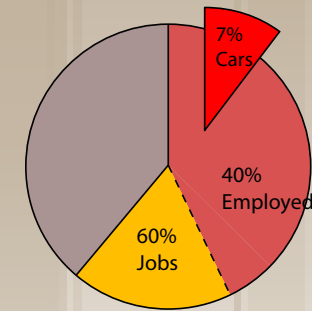
## II. Synthesis

🌐 Research similar issues & solutions around the world

### Pedestrian Policy



Antwerp City Center



Antwerp  
0.5 Mil

# Antwerp

Foundations of a design approach

AN URBAN DESIGN METHODOLOGY



## II. Synthesis

### ● Define areas for design development

- Reduce daily traffic flux by providing high density residential
- Promote work at home and live/work buildings
- Pedestrianize (car-less) and promote public transport
- Extend subway network
- Create partial self-sustainable region



### III. Solution Development

- Develop ideas that address all listed issues
- Rinse & Repeat several times
- Combine best ideas
- Go to evaluation stage & redo process
- Woo client



### III. Solution Development

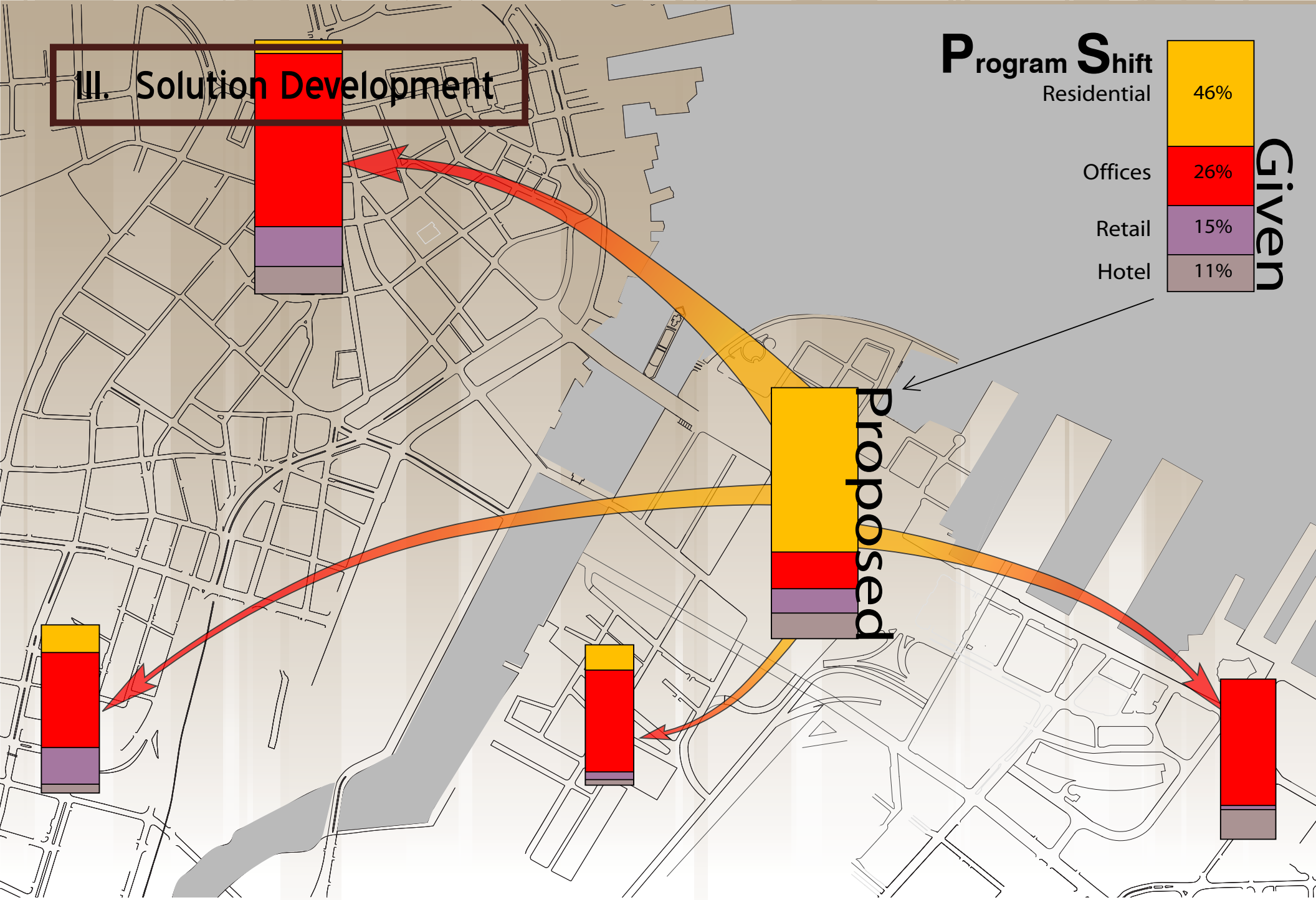
**P**rogram **S**hift  
Residential 46%

Offices 26%

Retail 15%

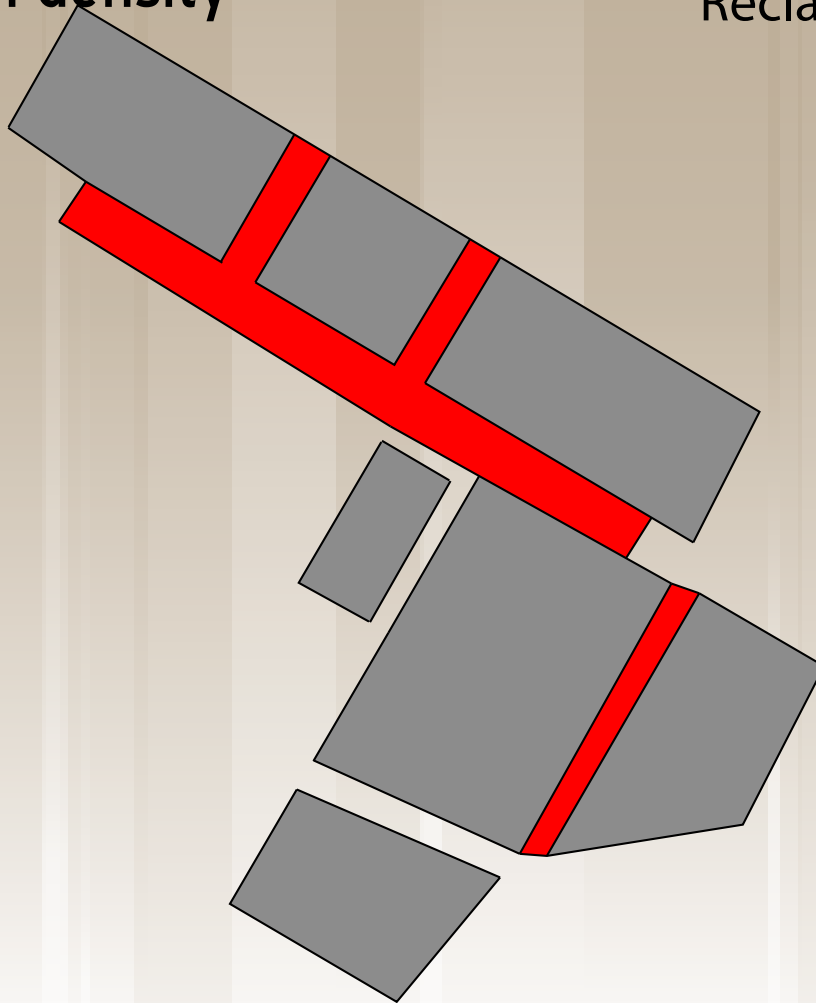
Hotel 11%

Given



### III. Solution Development

#### High density



Reclaim road space:

- Reduction of roads
- Buildings Over Roads

Space Gained:

**150.000 ft<sup>2</sup>**



### III. Solution Development

- High density
- Green Rooves





### III. Solution Development

- High density
- Green Rooves
- Car-less development

**Autodate**



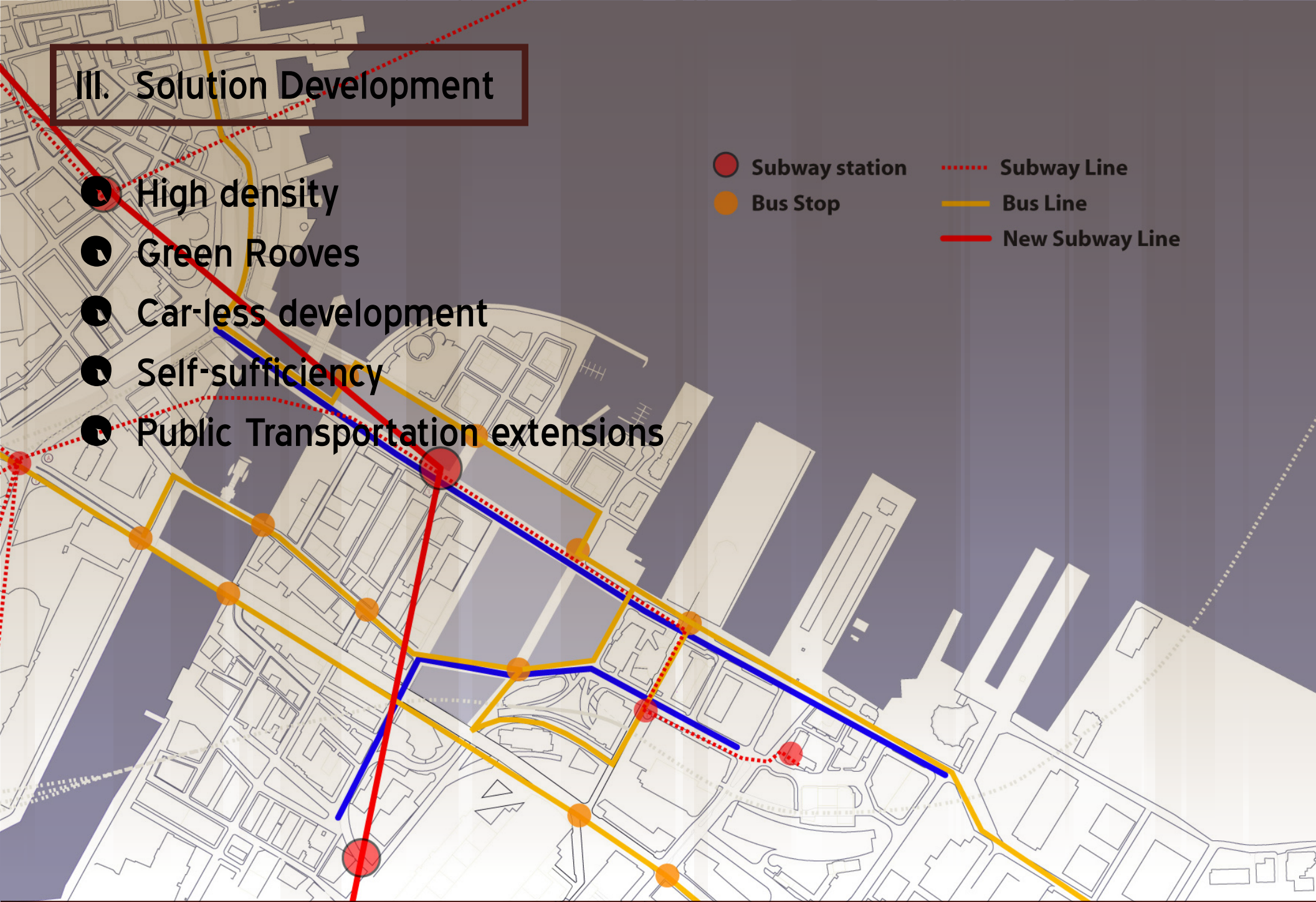
**Access Control**



### III. Solution Development

- High density
- Green Rooves
- Car-less development
- Self-sufficiency
- Public Transportation extensions

- Subway station
- Bus Stop
- Subway Line
- Bus Line
- New Subway Line



## IV. Solution Evaluation

- Test combined solutions against stated goal & requirements



## IV. Solution Evaluation

- There is never just one approach, or solution. Keep thinking.
- Largest savings made early in the process (size, program, etc)
- Maximize your territory and expand the design's influence
- Proper Research = Proper Solutions, Bad Research = Flying Blind
- A solution for one place is often not effective somewhere else
- Reduction of energy use before sustainable energy generation
- Work within economic realities and use them to your advantage
- Politicians are your best friend. Unfortunately.

