

Northampton, Massachusetts / Fall, 2008

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Northampton in Continental Context

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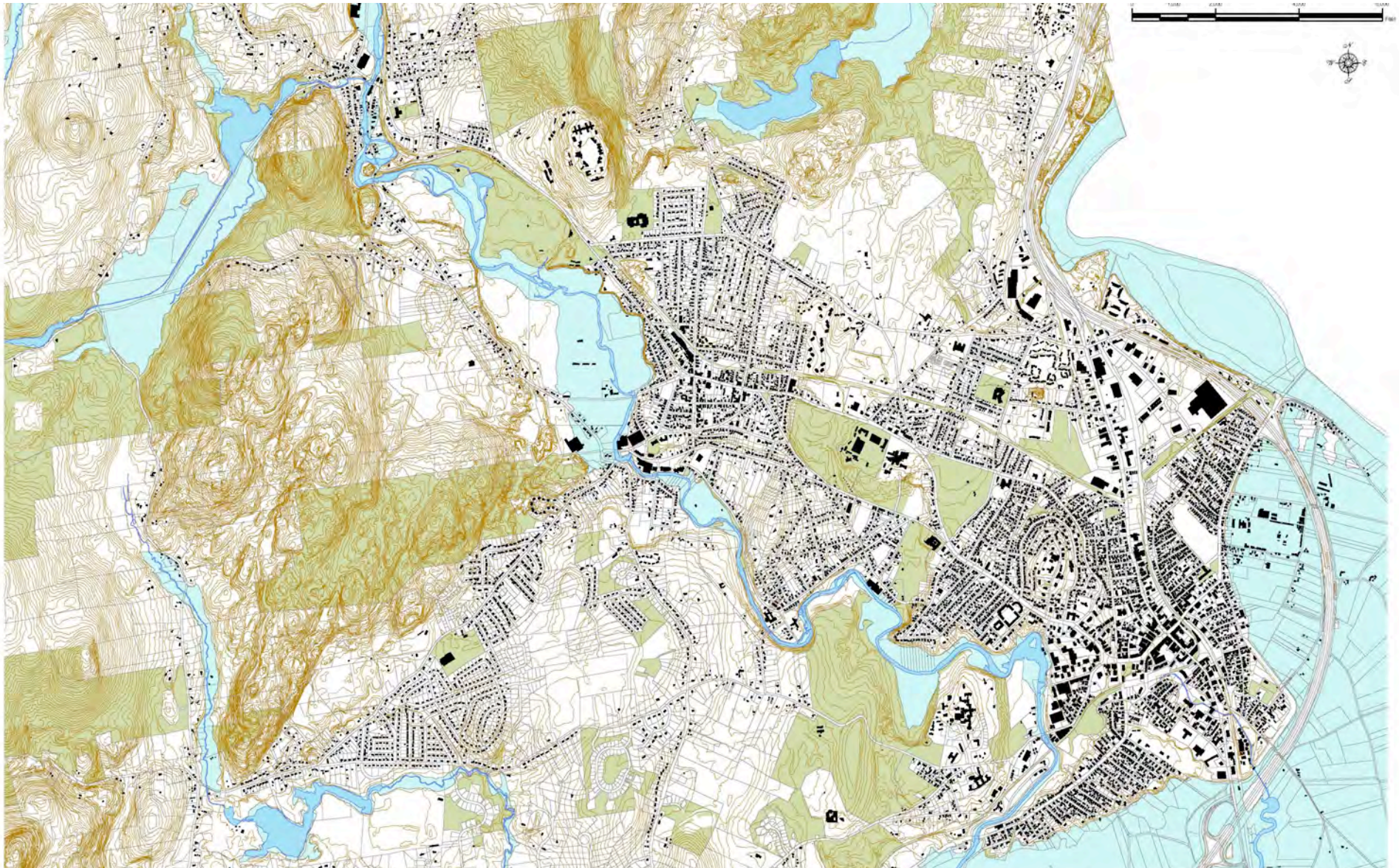
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Northampton in Regional Context

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Plan of Northampton

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Growth of Northampton I

1800: POPULATION 2,000

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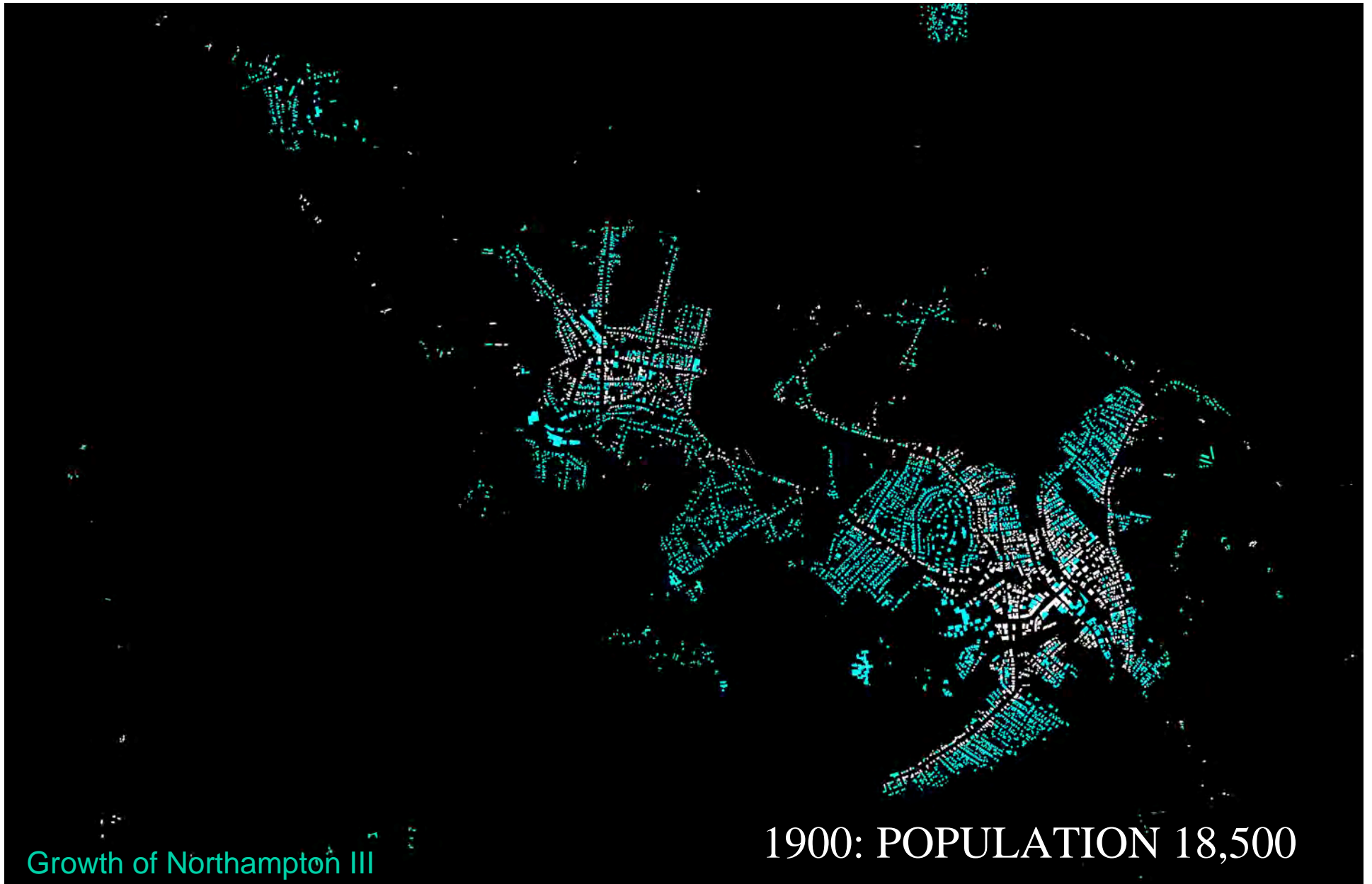


Growth of Northampton II

1850: POPULATION 6,000

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Growth of Northampton III

1900: POPULATION 18,500

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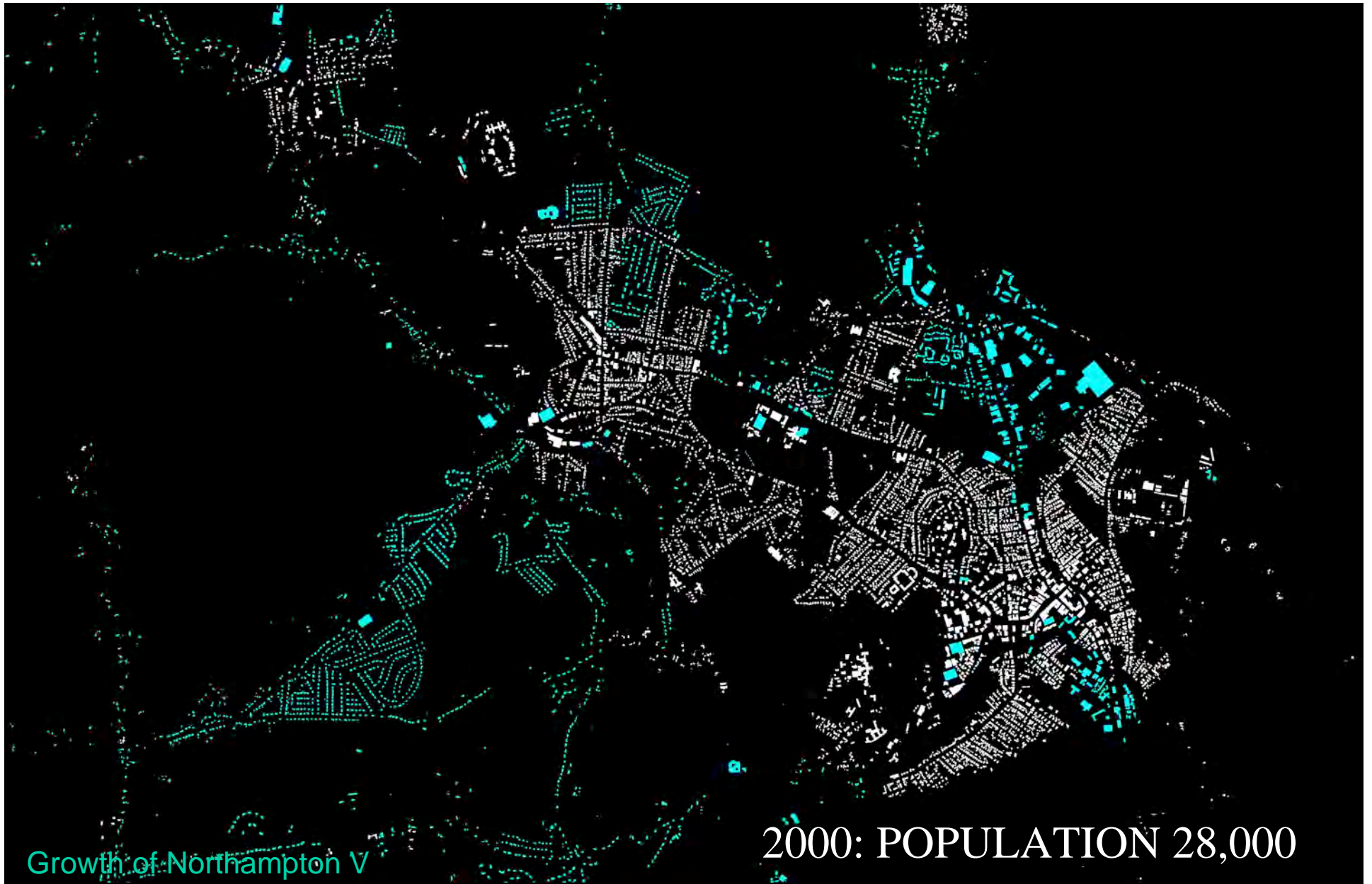


Growth of Northampton IV

1950: POPULATION 26,000

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Growth of Northampton V

2000: POPULATION 28,000

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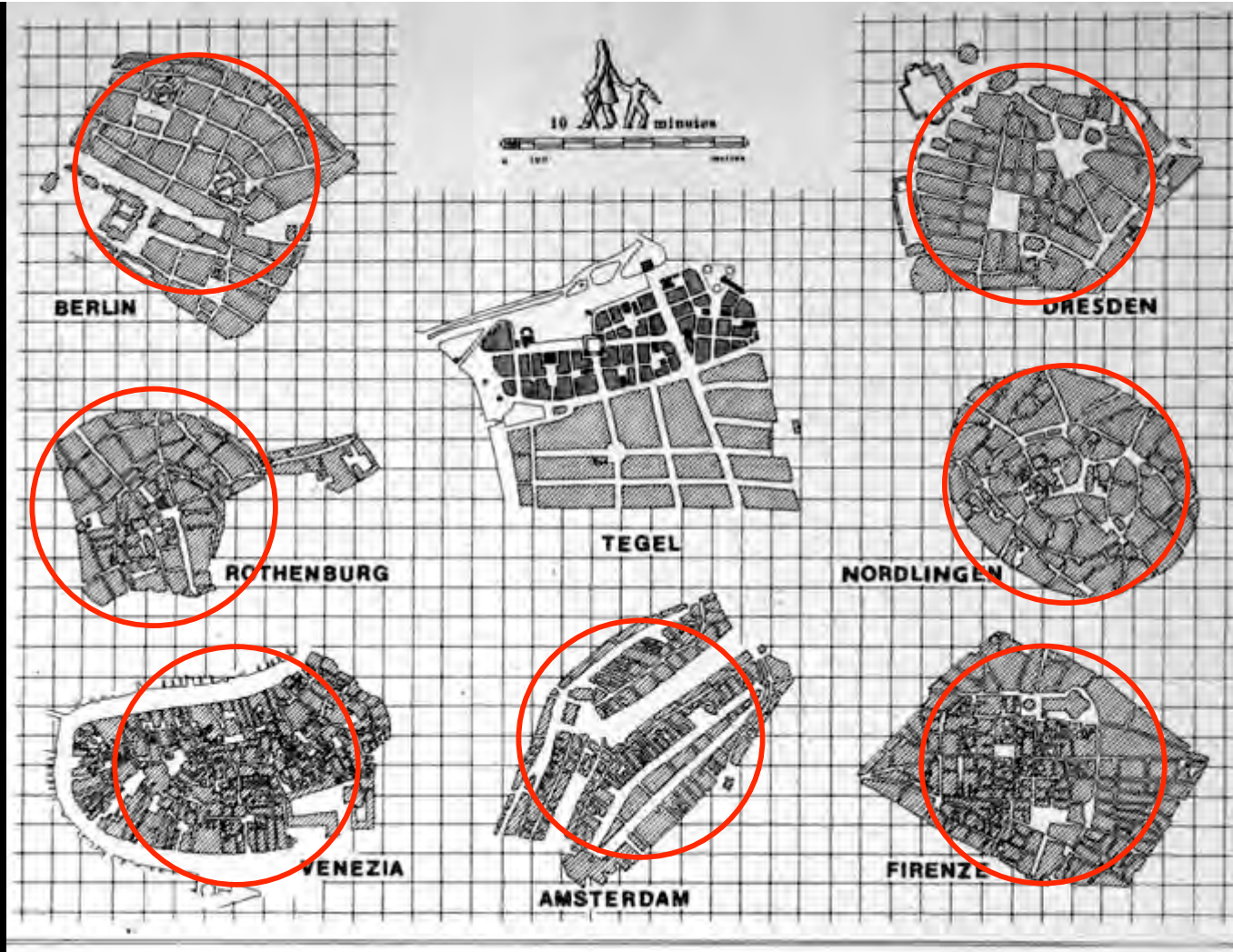
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2000: POPULATION 28,000

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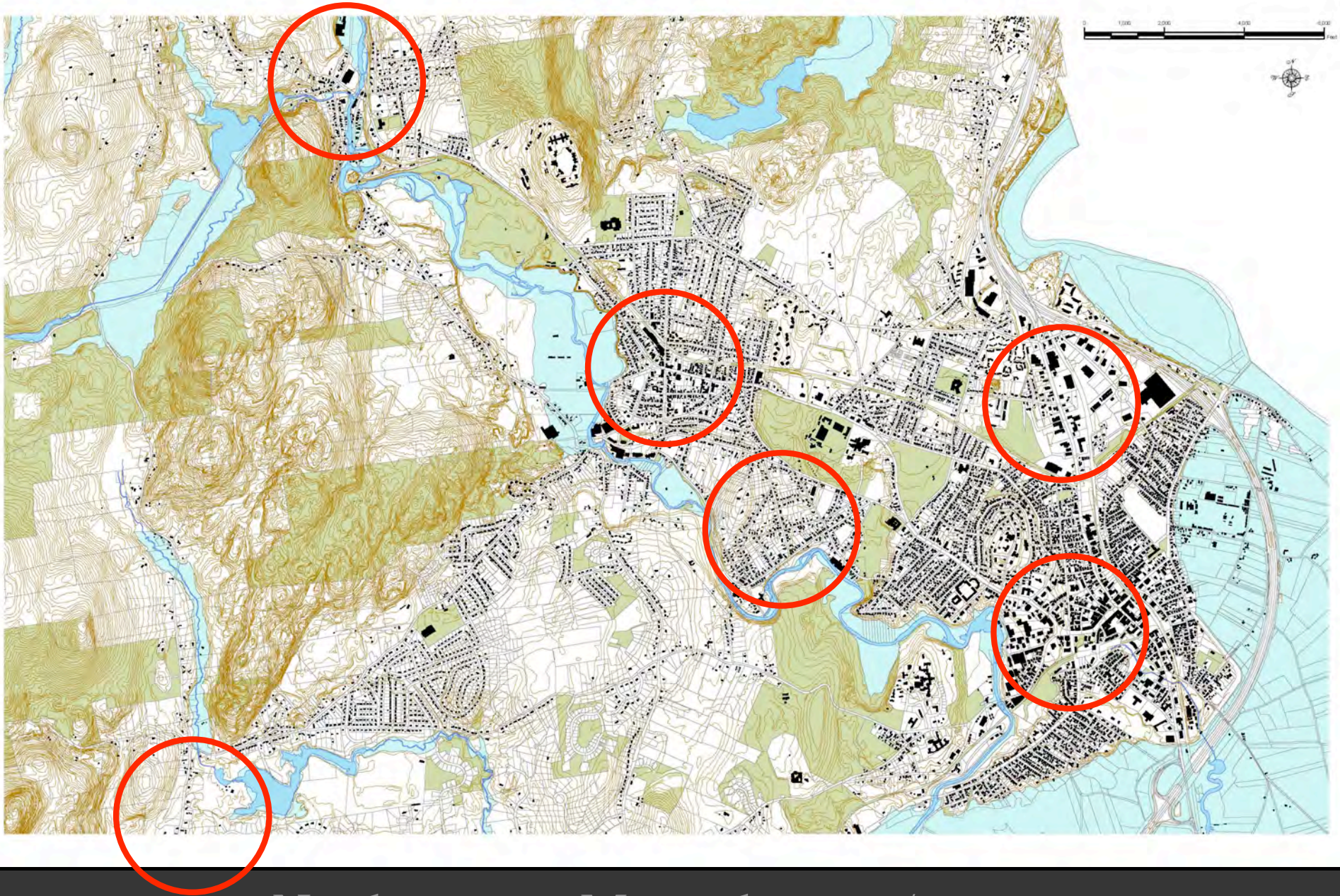


The MEASURE of good urbanism: the 1/4 mile radius (5-minute) walk

Characteristics of traditional towns and city neighborhoods - Drawing courtesy of Leon Krier

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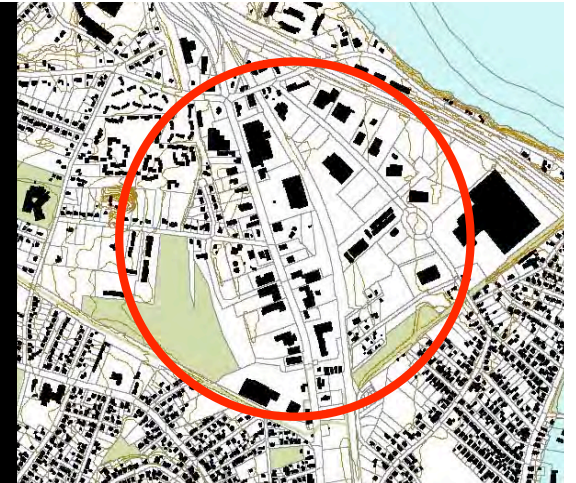


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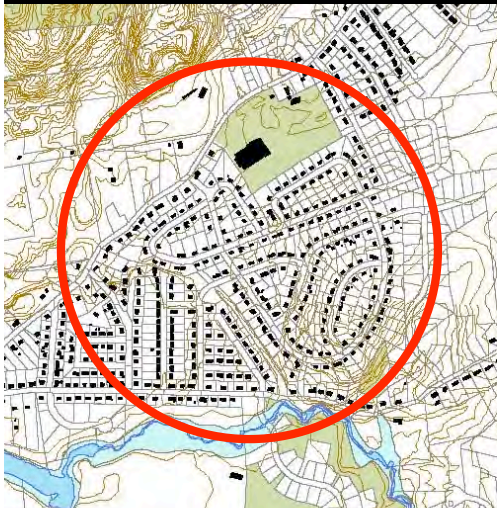
Florence



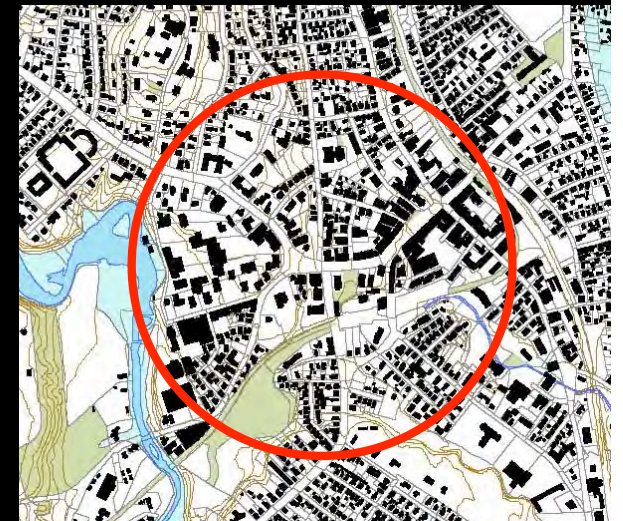
King Street



Bay State



Southwest Post-1945 development



Historic Center

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Florence, Massachusetts

Florence, Italy

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THE TRANSECT:
A BRIEF EXPLANATION FROM
NORTHAMPTON

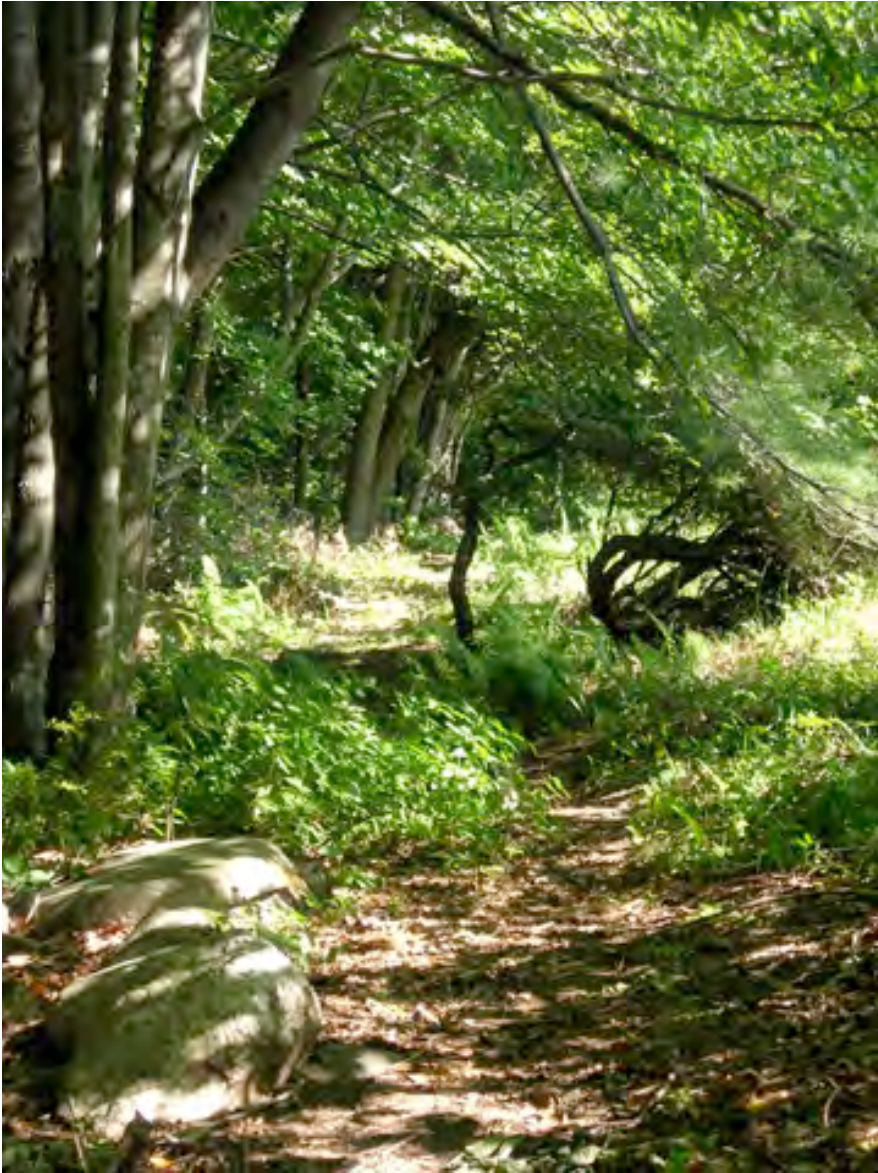
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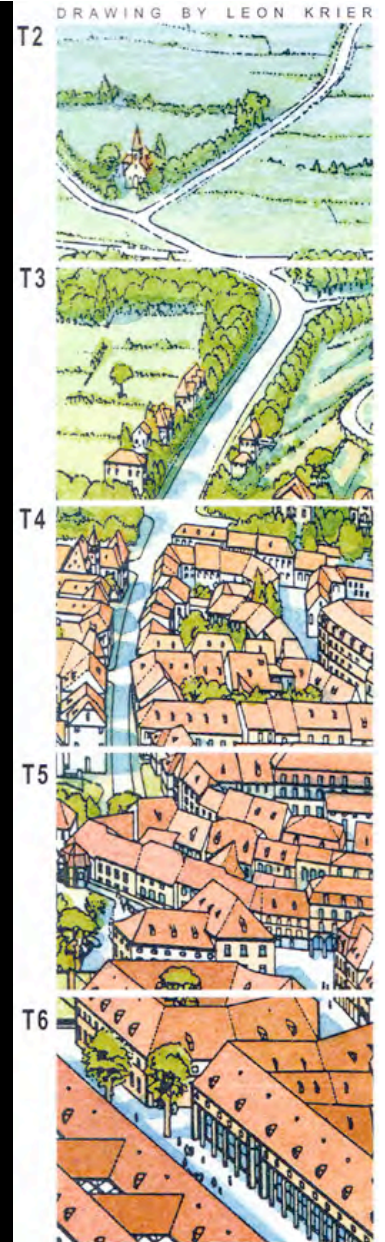
T-1 NATURAL
(uncultivated landscape)

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T-2 RURAL (cultivated landscape)

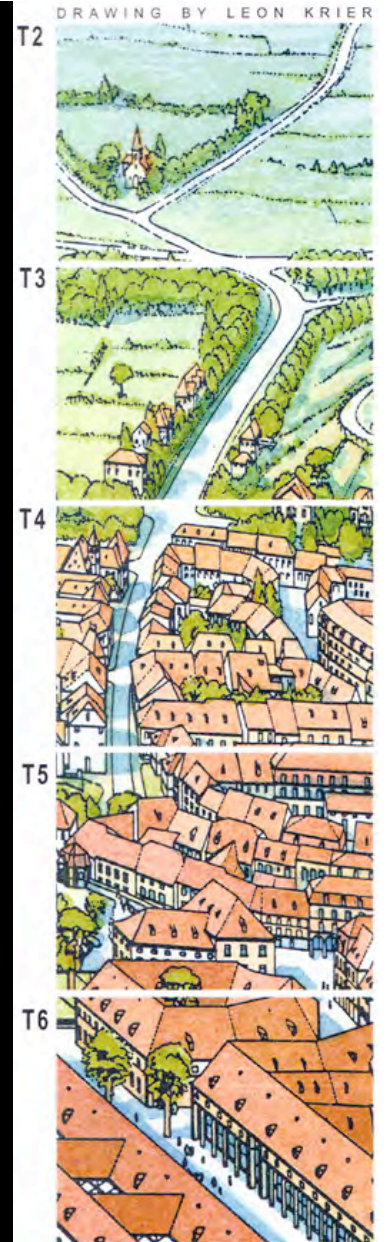


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T-3 SUB-URBAN

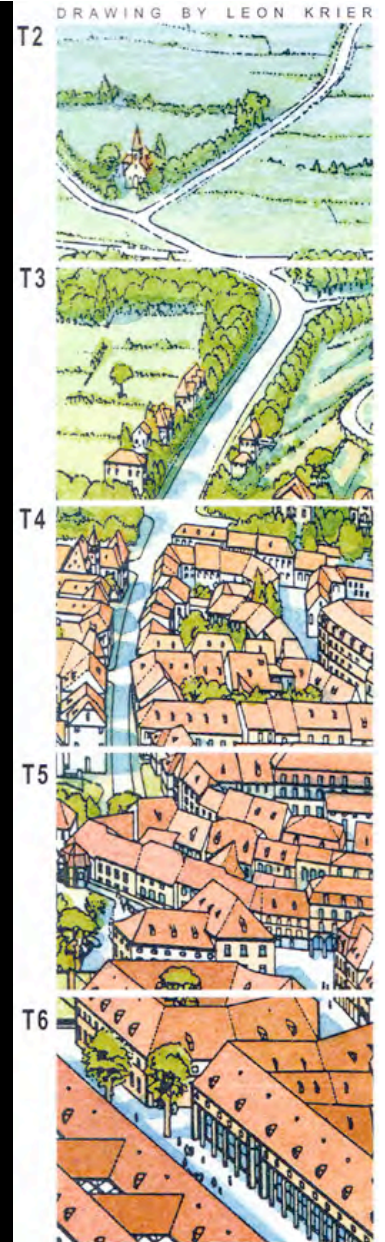


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T-4 NEIGHBORHOOD GENERAL

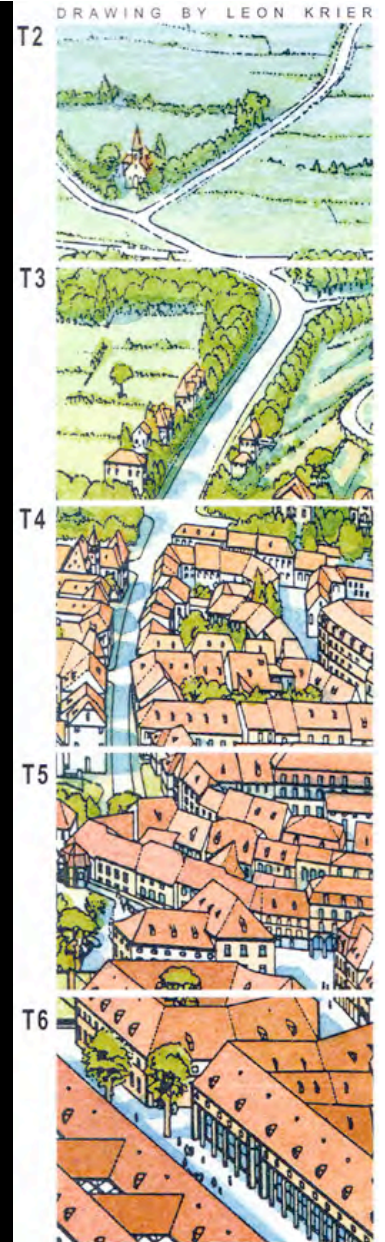


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T-5 URBAN CENTER

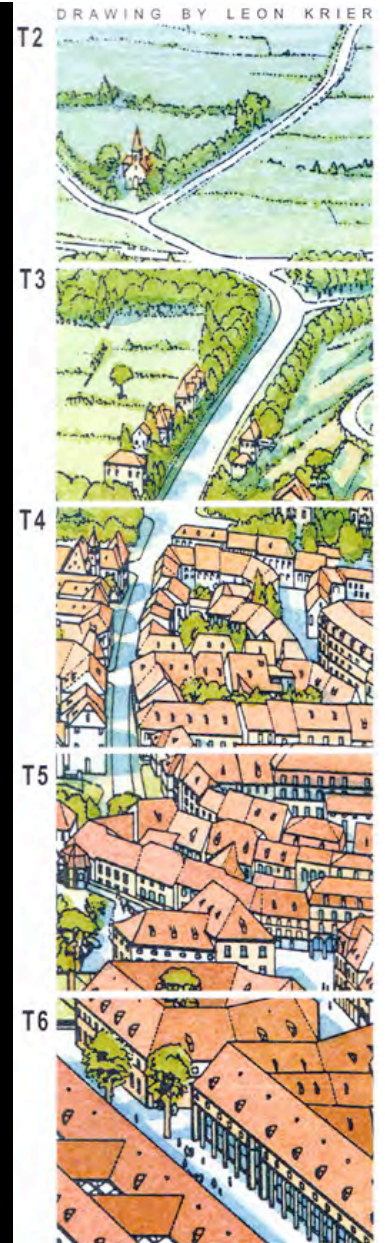


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T-6 URBAN CORE (not Northampton)



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A map of existing rural-to-urban transect conditions in Northampton

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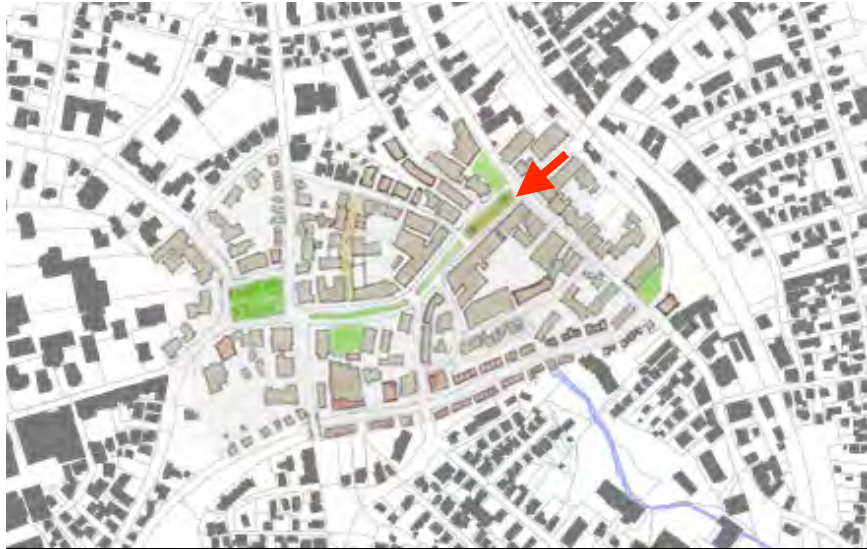
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Downtown #1

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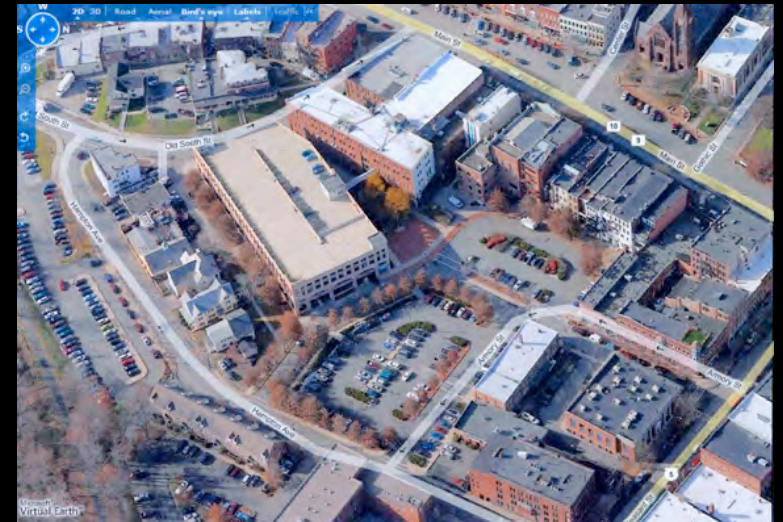
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Downtown #2

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Downtown #3

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George's Street - Edinburgh, Scotland, UK - note center (parkable) median

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Downtown #4 (Route 66-a): existing below / proposed above

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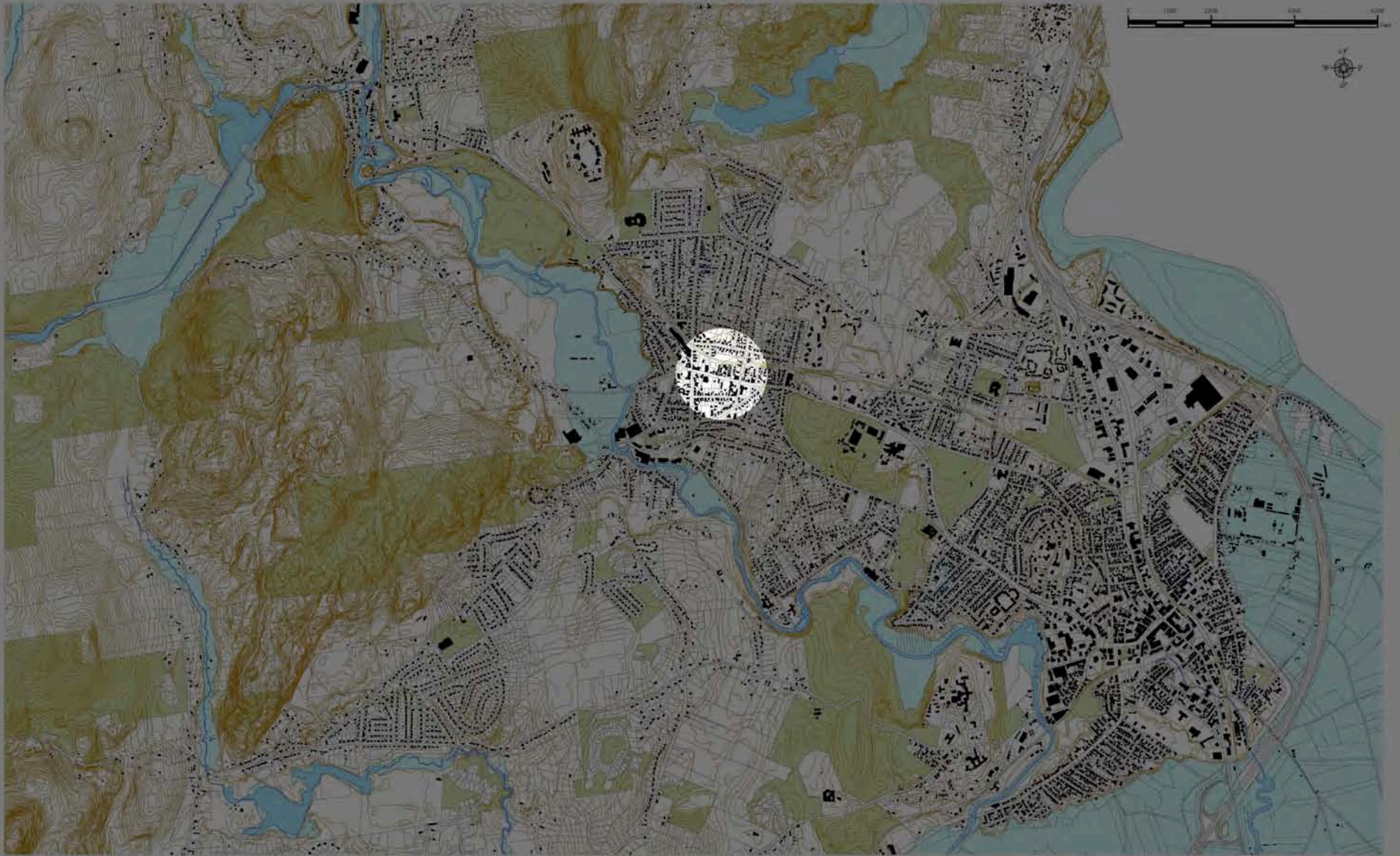
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Downtown #5 (Route 66-b): existing below / proposed above

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Florence Center #1

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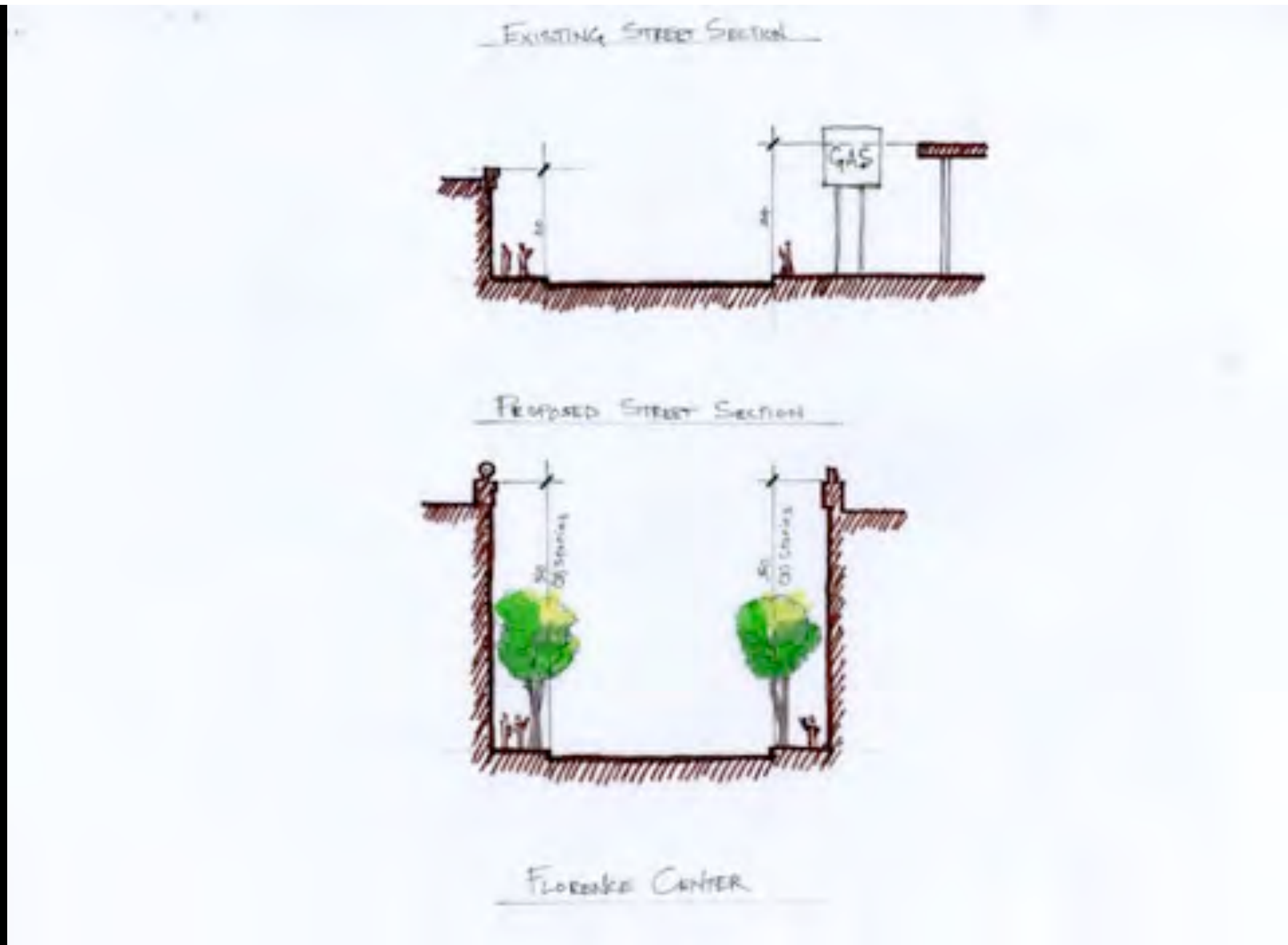
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Florence Center #2

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Florence Main Street sections / existing (above) & proposed (below)

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Pleasant Street #1

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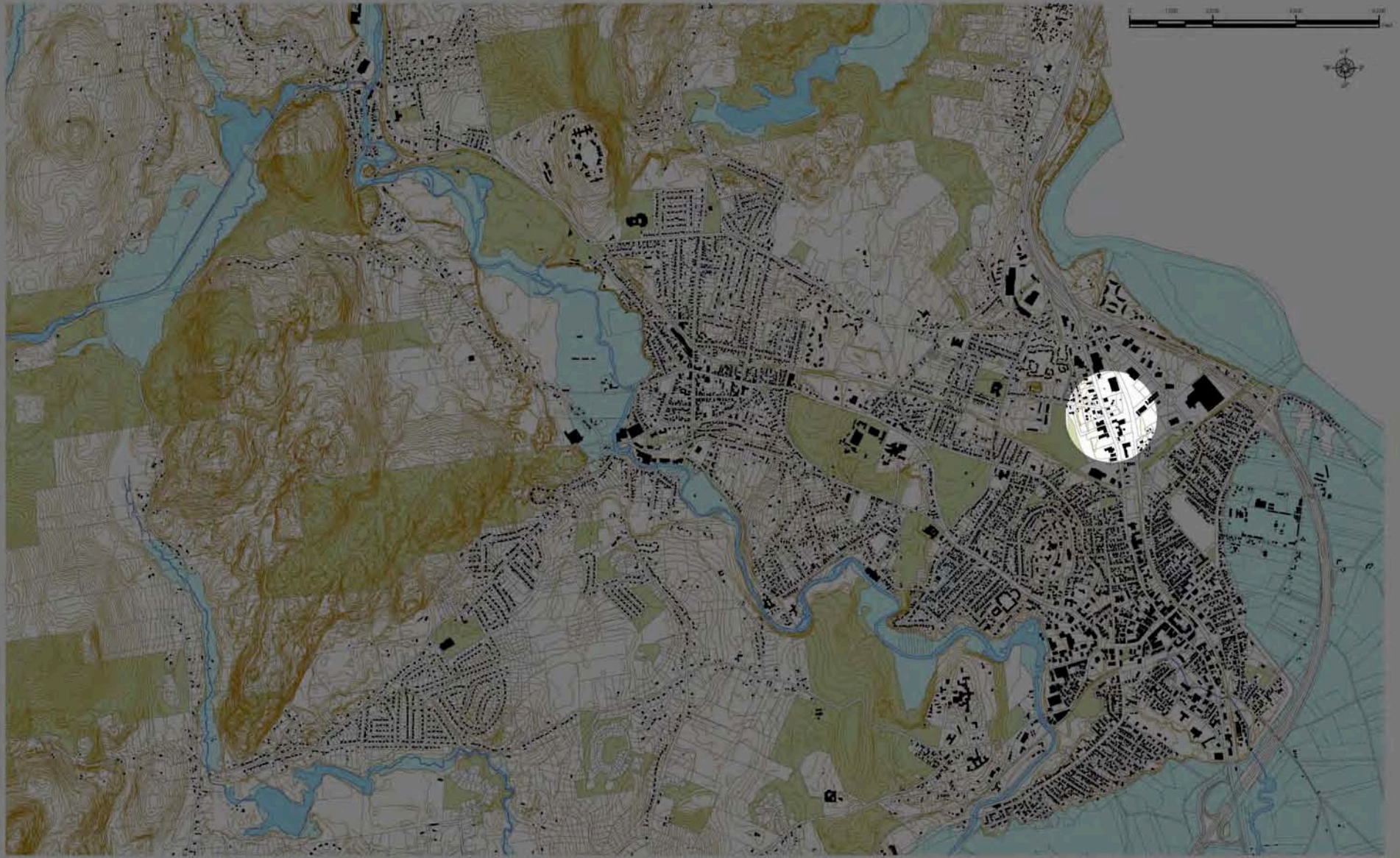
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Pleasant Street #2

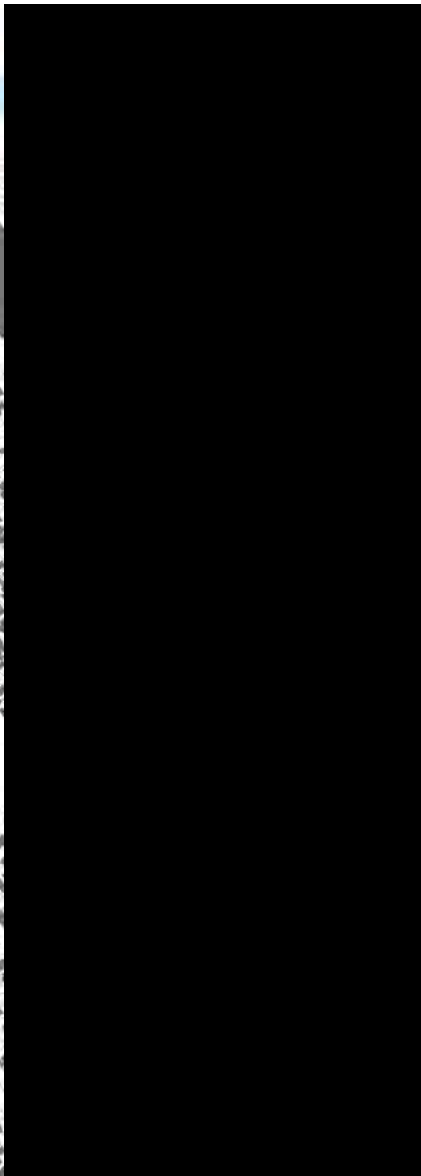
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King Street #1

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King Street #1

Northampton, Massachusetts / Fall, 2008

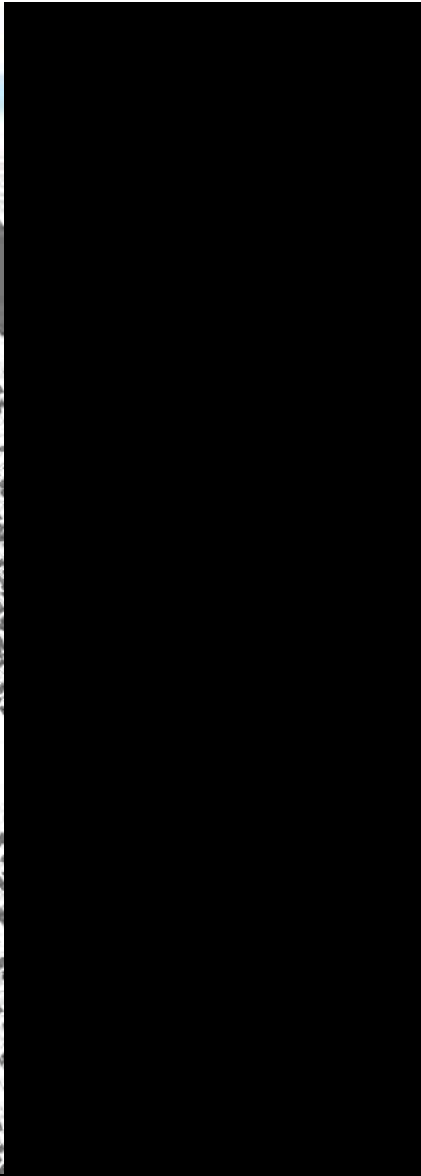
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King Street #1

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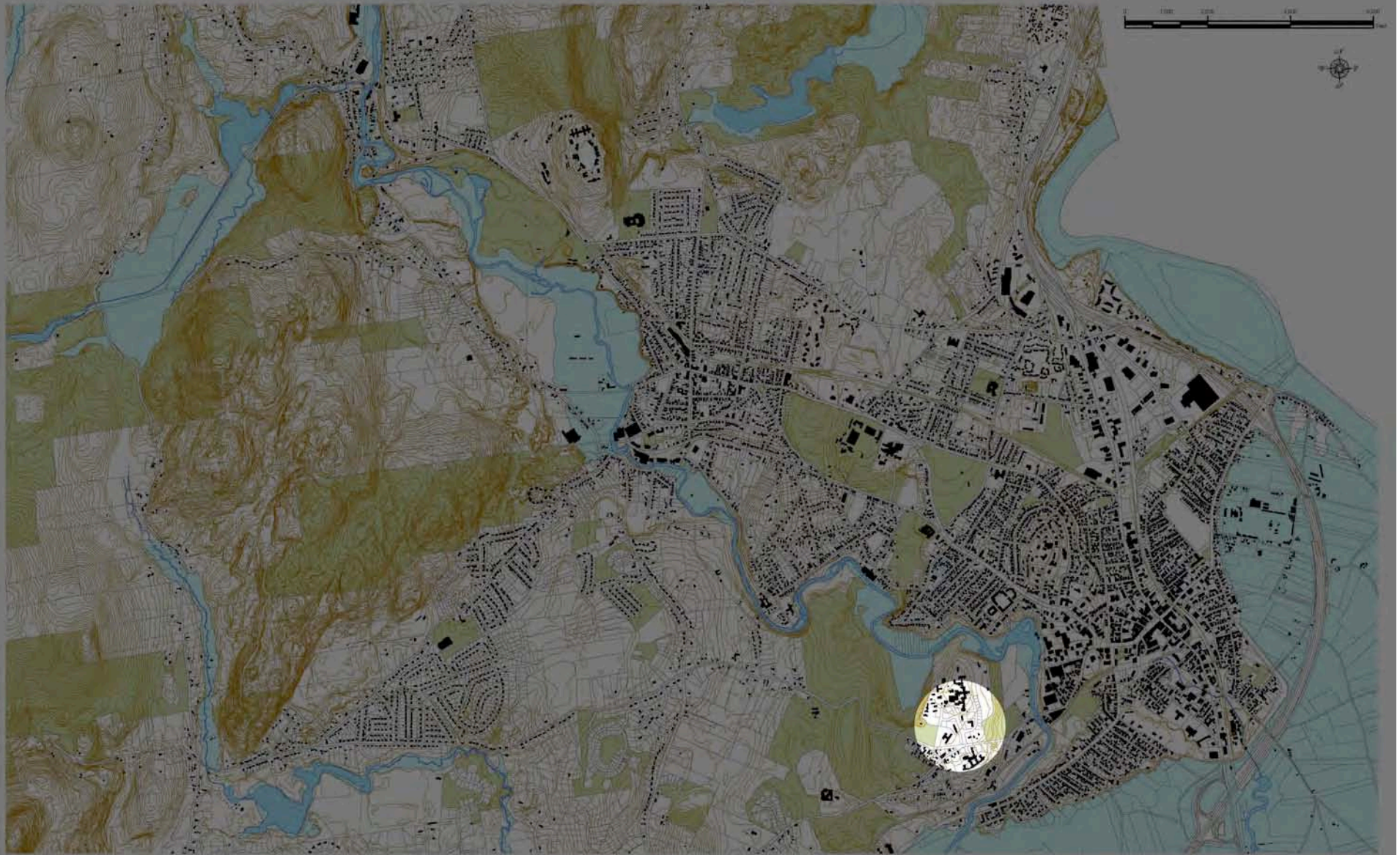
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north / upper King Street #2 / Industrial Park

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Hospital / Village Hill #1

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Hospital / Village Hill #2

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Downtown #4 (Route 66-a): existing below / proposed above

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Downtown #5 (Route 66-b): existing below / proposed above

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Massachusetts rail lines (above) / Northampton trolley lines (below)

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Northampton bike trails and public green space

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Pleasant Street north / Pleasant Street south

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Old court house / New court house

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Old post office / New post office

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Old jail / New police station

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Affordable Housing precedents I: Bruges "godshuises" (left) / Churchill - Holyoke Section 8 housing

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Affordable Housing precedents II: coach-houses / flats / studio and 1-bedroom apartments

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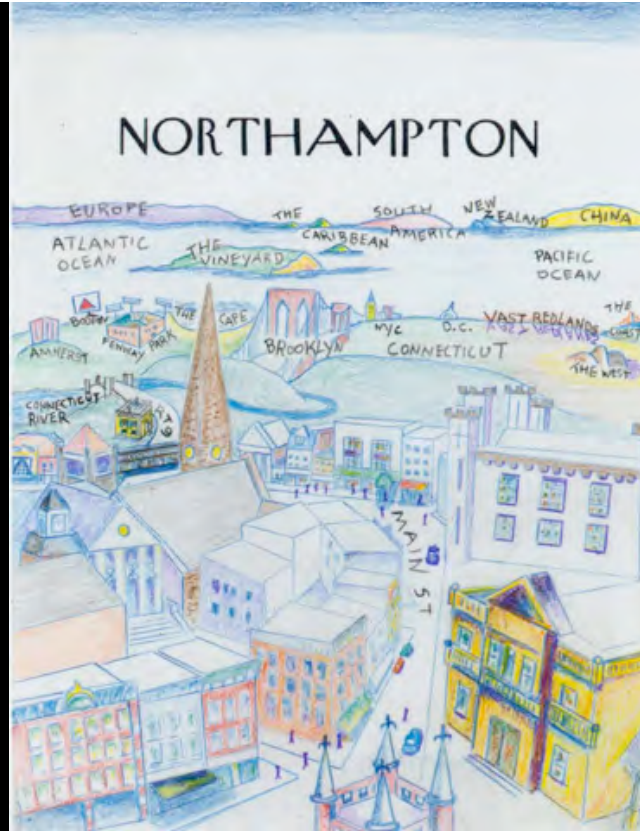
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Affordable Housing precedents III: multi-dwelling unit domestic buildings

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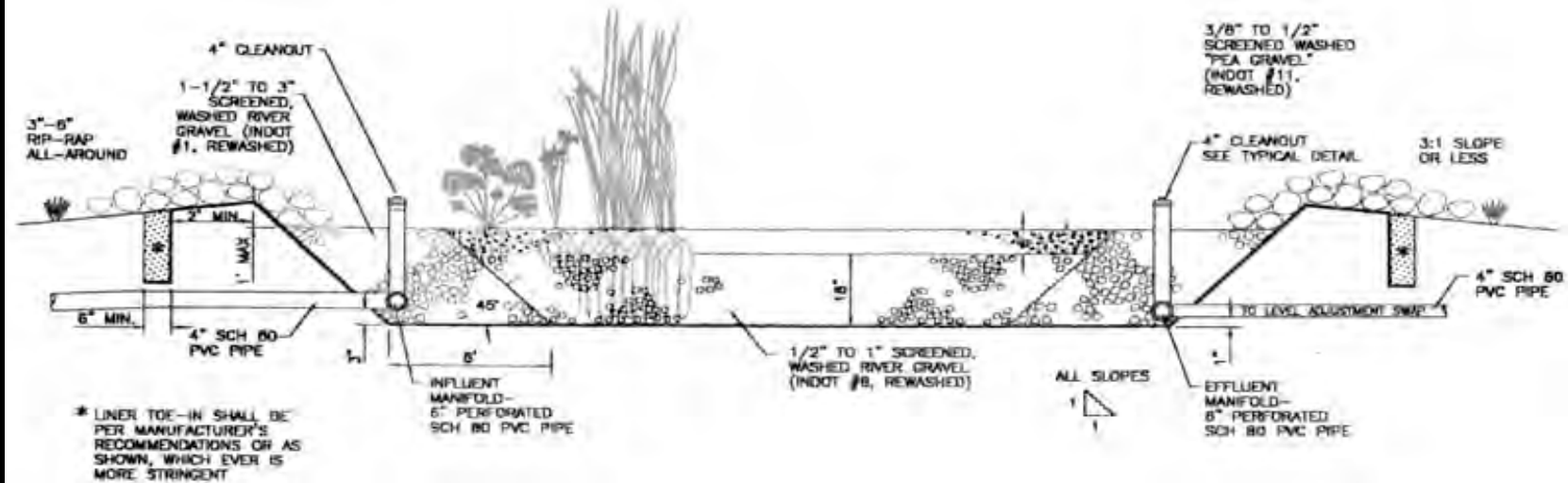


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CONSTRUCTED WETLANDS:

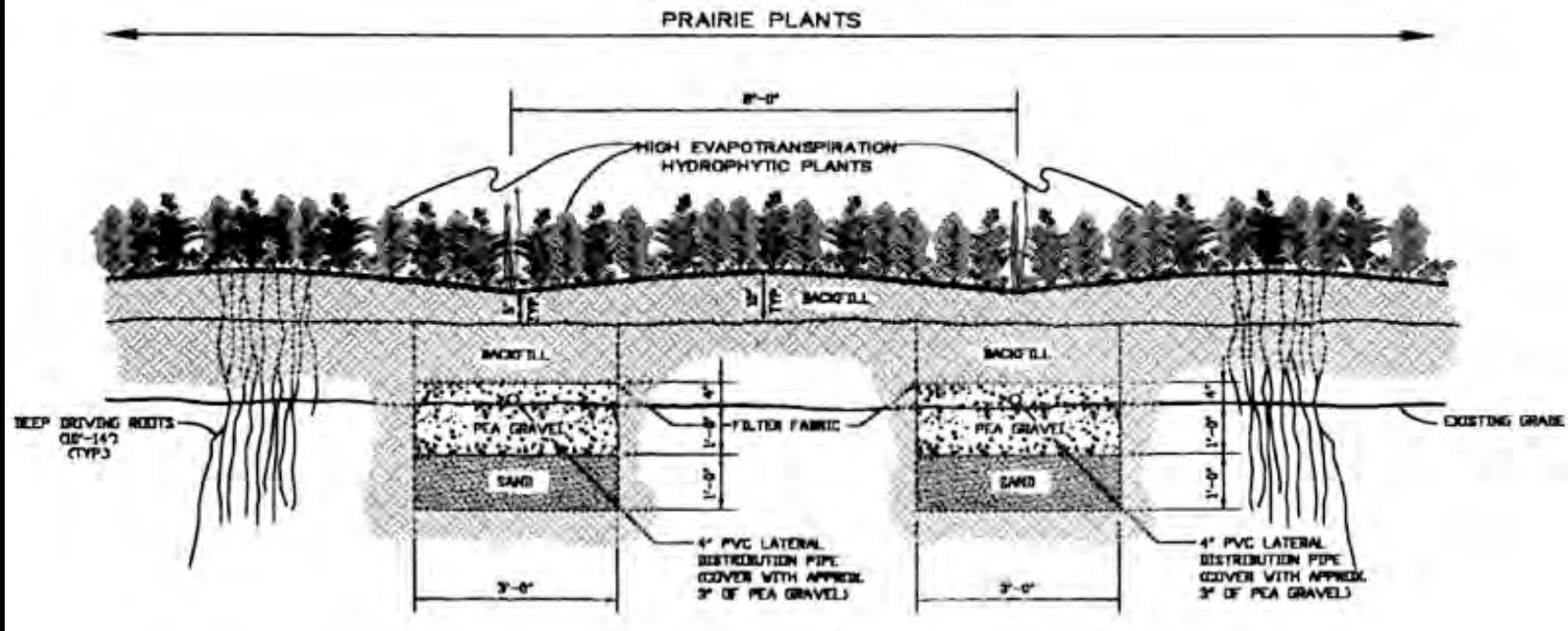
- Purify waste water and return to ground drinking-quality water
- Are environmentally friendly
- Are odorless and dry to walk on
- Are cost-competitive, can be built incrementally, and require minimal maintenance
- Work in part anaerobically, making them suitable for even cold-weather climates
- Can be employed for aesthetic purposes



Constructed Wetlands Cell (Step 1 of 2)

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BIO-FIELDS:

- Rushes and prairie grasses dissipate ammonia from water filtered through constructed wetlands cell, returning PURE WATER to ground (unlike conventional septic systems)
- Wetlands / Bio-field sizing info:
 - 1.2 s.f./gallon/day for wetlands; same for bio-fields
 - 150 gallons/day for first two bedrooms, 100 gallons/day for others
 - 4 bedroom house = 500 gallons/day = 600 s.f. cell, 600 s.f. bio-field
 - 3 bedroom house = 400 gallons/day = 480 s.f. cell, 480 s.f. bio-field
 - 2 bedroom house = 300 gallons/day = 360 s.f. cell, 360 s.f. bio-field



Constructed Wetlands Bio-field (Step 2 of 2)

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