tidal
marsh
industry
today
HISTORICAL OVERVIEW OF BROOKLYN

SIX DUTCH TOWNS
Gravesend, settled in 1645
Breuckelen, settled in 1646
New Amersfoort (present-day Flatlands), settled in 1647
Midwout (present-day Flatbush), settled in 1652
New Utrecht, settled in 1657
Boswijck (present-day Bushwick), settled in 1661

1664 - The English Take Control
In 1664, the English conquer the Dutch and gain control of Manhattan, along with Brooklyn, which then becomes a part of the colony of New York. On November 1, 1683, the six colonies that make up Brooklyn are established as Kings County.

1776 - The Battle of Brooklyn
It is August of 1776 when the Battle of Brooklyn, one of the first skirmishes between the British and the Americans in the Revolutionary War, takes place. George Washington positions troops in Brooklyn, and fighting occurs throughout many present-day neighborhoods, including Flatbush and Park Slope. The British defeat the Americans, but because of bad weather, the American troops are able to flee to Manhattan. Many soldiers are thus saved.

1801 to 1883 - Famous Landmarks are Built
In 1801, the Brooklyn Navy Yard opens. A little more than a decade later, in 1814, the steam ship Nassau begins service between Brooklyn and Manhattan. Brooklyn's economy grows, and it is incorporated as the City of Brooklyn in 1834. Soon after, in 1838, the Green-Wood Cemetery is created. Twenty years later, in 1859, the Brooklyn Academy of Music is formed. Prospect Park opens to the public in 1867, and one of Brooklyn's most famous landmarks, the Brooklyn Bridge, is opened in 1883.

Late 1800s - Brooklyn Thrives
In 1897, the Brooklyn Museum opens, though at the time it is known as the Brooklyn Institute of Arts and Sciences. In 1898, Brooklyn merges with New York City and becomes one of its five boroughs. The next year, in 1899, the Brooklyn Children's Museum, the world's first children's museum, opens its doors to the public.

Early 1900s - Bridges, Tunnels, and a Sports Stadium
When the Williamsburg Bridge opens in 1903, it is the largest suspension bridge in the world. Five years later, in 1908, the city's first subway begins running trains between Brooklyn and Manhattan. In 1909, the Manhattan Bridge is completed. Ebbets Field opens in 1913, and the Brooklyn Dodgers, formerly known as the Bridegrooms and then the Trolley Dodgers, have a new place to play.

1929 to 1964 - A Skyscraper Comes to Brooklyn
Brooklyn's tallest building, the Williamsburgh Savings Bank, is completed in 1929. In 1957, the New York Aquarium comes to Coney Island, and the Dodgers leave Brooklyn. Seven years later, in 1964, the Verrazano-Narrows Bridge is completed, connecting Brooklyn to Staten Island.

1964 to Present - Continuing Growth
In 1966, the Brooklyn Navy Yard closes and becomes New York's first land marked historic district. The 1980s bring about the Metro Tech Center, a high-rise development in downtown Brooklyn, the Brooklyn Philharmonic, and the beginnings of the Brooklyn Bridge Park. Baseball comes to Brooklyn once more in 2001, with the Brooklyn Cyclones playing from Coney Island's KeySpan Park. In 2006, the U.S. Census Bureau calculates Brooklyn's population at 2,508,820.

Source: Kristen Goode, former About.com Guide
NATURAL ENVIRONMENT

Topography
Climate
TOPOGRAPHY

DIGITAL ELEVATION MODEL

1106.065 FT

-0.335 FT

12,500' 25,000' 50,000' 100,000'
New York J F Kennedy Intl Airport
ASHRAE 90.1 4A Mixed humid
Koeppe-
Cfa Humid temperate (mild winters), Fully
Geiger Humid, no dry season. Hot summer (sub-
tropical). Mild winters, hot muggy summers
with thunderstorms

Chosen weather file is NewYorkTMY2.fwt
Rainfall location: New York City-La Guardia, USA
Winter is potentially most dominant - the design must minimize
heating energy.
Latitude is mid - solar radiation on south/east/west walls is
significant. Solar radiation on roofs is significant.
Summer is hot/warm. Summer also has a moderate diurnal range.
Winter is cold.
Winter prevailing winds typically from the north. Summer prevailing
winds typically from the south. Wind patterns: Typically westerly
winds.
Insects may be an issue.

Temperature:
Warmest month Jul
Max annual temperature (Jul) 35.0 °C
Warmest six months Jul Aug Jun Sep May Oct
Coldest month Jan
Min annual temperature (Jan) -15.6 °C
Coldest six months Jan Feb Dec Mar Nov Apr
Number of months warmer than 10.0°C mean = 6

Moisture and humidity:
Max. moisture content 0.019 kg/kg
Min. moisture content 0.000 kg/kg
Mean moisture content 0.006 kg/kg
Mean relative humidity 62.2 %

Wind:
Annual mean speed 5.2 m/s
Annual mean direction E of N -49.5°

Precipitation:
Annual rainfall 1056.4 mm
Driest month Oct with 73.2 mm rainfall
Wettest month Apr with 99.1 mm rainfall
Wettest summer month May
Wettest winter month Apr
Driest summer month Oct
Driest winter month Feb
Wettest six months Apr Jul May Nov Jun Mar

Solar energy:
Annual hourly mean global radiation(a) 166.1 W/m²
Mean daily global radiation(b) 3979.8 Wh/m²
Annual solar resource(c) 1464.8 kWh/m² yr
Annual mean cloud cover(d) 4.1 oktas
TEMPERATURE

MONTHLY DIURNAL AVERAGES - New York City, New York - USA

<table>
<thead>
<tr>
<th>Month</th>
<th>Avg. Temp (°C)</th>
<th>Max Temp. (°C)</th>
<th>Min Temp (°C)</th>
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<tbody>
<tr>
<td>JANUARY</td>
<td>-1.4</td>
<td>9.3</td>
<td>-10.8</td>
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<tr>
<td>FEBRUARY</td>
<td>0.7</td>
<td>10.8</td>
<td>-9.9</td>
</tr>
<tr>
<td>MARCH</td>
<td>5.1</td>
<td>17.5</td>
<td>-3.9</td>
</tr>
<tr>
<td>APRIL</td>
<td>9.8</td>
<td>19.2</td>
<td>0.0</td>
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<tr>
<td>MAY</td>
<td>16.8</td>
<td>29.8</td>
<td>5.5</td>
</tr>
<tr>
<td>JUNE</td>
<td>21.8</td>
<td>32.2</td>
<td>11.9</td>
</tr>
<tr>
<td>JULY</td>
<td>24.7</td>
<td>35.0</td>
<td>18.1</td>
</tr>
<tr>
<td>AUGUST</td>
<td>22.9</td>
<td>29.6</td>
<td>15.6</td>
</tr>
<tr>
<td>SEPTEMBER</td>
<td>20.2</td>
<td>28.6</td>
<td>12.8</td>
</tr>
<tr>
<td>OCTOBER</td>
<td>13.5</td>
<td>23.6</td>
<td>7.7</td>
</tr>
<tr>
<td>NOVEMBER</td>
<td>7.8</td>
<td>18.0</td>
<td>1.3</td>
</tr>
<tr>
<td>DECEMBER</td>
<td>2.6</td>
<td>15.4</td>
<td>-8.3</td>
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BUILT ENVIRONMENT

Land Use
Building Massing
Open Space
Mobility
OPEN SPACE

GOVERNORS ISLAND

Valentino Park

Waterfront Museum

Coffey Park

UPPER BAY

Atlantic Basin

Brooklyn Battery Tunnel

Gowanus Canal

CARROLL GARDENS

COBBLE HILL

UPPER BAY
MARINE TRANSPORT

- To New Jersey
- To Staten Island

**MARITIME BUILDING**
- Ferry service: Manhattan - Governors Island
- Trips per day: Weekend (10am - 5pm) Every 20 min.

**BROOKLYN BRIDGE PARK**
- Ferry service: Brooklyn - Governors Island
- Trips per day: Weekend (10am - 5pm) Every 30 min.

**WATER TAXI / PIER 11**
- Ferry service: Ikea Shuttle
- Trips per day: 7 days a week (10am - 7pm) Every 30 min.
### DOWNTOWN MANHATTAN Stations 2011

<table>
<thead>
<tr>
<th>Station</th>
<th>2011</th>
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</thead>
<tbody>
<tr>
<td>Bowling Green</td>
<td>27,015</td>
</tr>
<tr>
<td>Broad St</td>
<td>5,746</td>
</tr>
<tr>
<td>Fulton St</td>
<td>63,203</td>
</tr>
<tr>
<td>Rector St</td>
<td>8,902</td>
</tr>
<tr>
<td>Rector St</td>
<td>8,083</td>
</tr>
<tr>
<td>South Ferry / Whitehall</td>
<td>29,583</td>
</tr>
<tr>
<td>Wall St</td>
<td>25,559</td>
</tr>
<tr>
<td>Wall St</td>
<td>22,986</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>191,077</td>
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</table>

### DOWNTOWN BROOKLYN Stations 2011

<table>
<thead>
<tr>
<th>Station</th>
<th>2011</th>
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</thead>
<tbody>
<tr>
<td>Clark St</td>
<td>5,596</td>
</tr>
<tr>
<td>Dekalb Av</td>
<td>17,180</td>
</tr>
<tr>
<td>Court St/Borough Hall</td>
<td>38,026</td>
</tr>
<tr>
<td>High St</td>
<td>6,586</td>
</tr>
<tr>
<td>Hoyt St</td>
<td>6,535</td>
</tr>
<tr>
<td>Hoyt-Schermerhorn Sts</td>
<td>9,760</td>
</tr>
<tr>
<td>Jay St-MetroTech</td>
<td>38,036</td>
</tr>
<tr>
<td>Nevins St</td>
<td>11,708</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>133,427</td>
</tr>
</tbody>
</table>

### URBANEER SITE 2011

<table>
<thead>
<tr>
<th>Station</th>
<th>2011</th>
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</thead>
<tbody>
<tr>
<td>Carroll St</td>
<td>11,906</td>
</tr>
<tr>
<td>Bergen St</td>
<td>11,048</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>22,954</td>
</tr>
</tbody>
</table>
Van Brunt St
Dwight St
Columbia St
Atlantic Ave

MTA - B 61
IKEA SHUTTLE

24H SERVICE
7 days a week
5pm - 12am Every 12 min
12am - 6am Every 20 min
7am - 5pm Every 7-9 min

Borough Hall subway stations from 3pm to 9pm
daily Monday through Friday every half hour and Saturday and Sunday from 11am to 9pm every 20 minutes.
SOCIAL ENVIRONMENT

Census Tracks
Population
Racial Distribution
Household Income

Occupation
Property Value
Housing Density
Census tracks are small, relatively permanent statistical subdivisions of a county. They are the most detailed (and lowest) level of geography available for a majority of the data provided by the U.S. Census. They are designed to be relatively homogeneous with respect to population characteristics, economic status, and living conditions.

http://www.mapsofworld.com/census/tract.html#ct
Van Brunt Street
UPPER BAY
Atlantic Basin
RED HOOK
Governors Island
Brooklyn Battery Tunnel
Gowanus Canal
Columbia Street Waterfront District
Carroll Gardens
Cobble Hill
Population

1 = 100 People

Census Tract Border

5

5

51

57

63

65

55

59

67

85

278

500'

1,000'

2,000'

4,000'

N
HOUSEHOLD INCOME

Source: NYTimes Mapping the 2010 Census
PROPERTY VALUE

GOVERNORS ISLAND

COLUMBIA STREET WATERFRONT DISTRICT

CARROL GARDENS

COBBLE HILL

RED HOOK

Source: NYTimes Mapping the 2010 Census