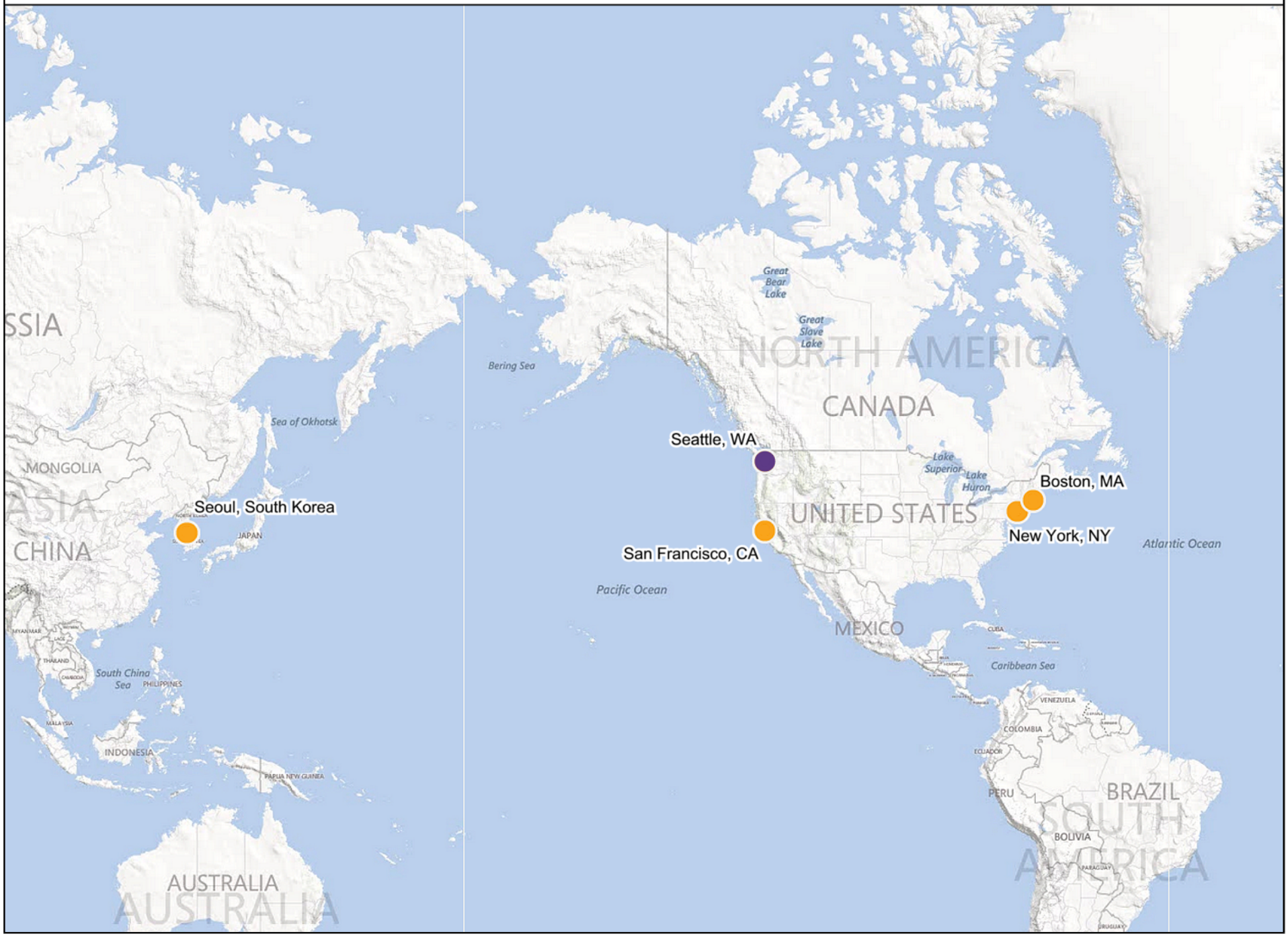
Seattle Waterfront Benefit Study

Analysis of Comparable Projects

We conducted a seach for examples of elevated highway removal and urban park creation projects. The following are the most pertinent projects for our study:

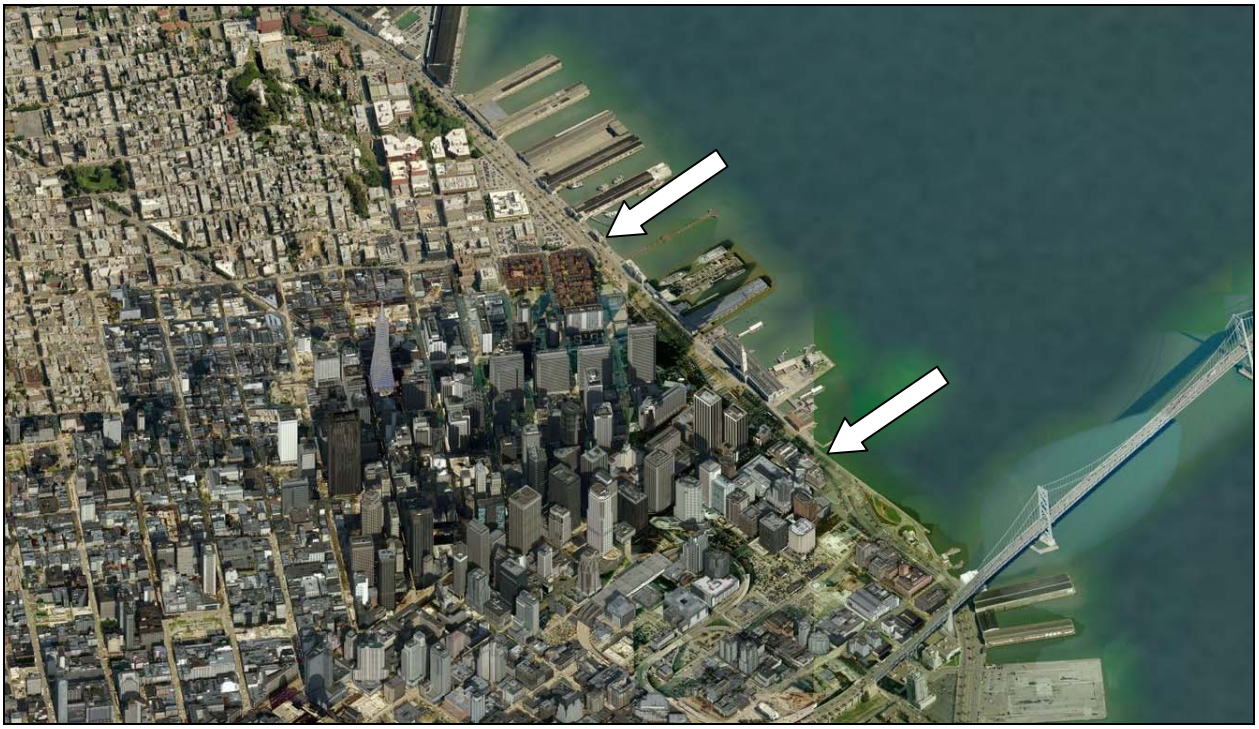
Project Name	Location	Project Description	Neighborhood Character
Embarcadero	San Francisco	Elevated highway removal & promenade	Highrise & Pier
Central Freeway	San Francisco	Elevated highway removal & park	Lowrise
Central Artery/Tunnel	Boston	Elevated highway removal & linear park	Highrise & Pier
Bryant Park	Manhattan	Park renovation	Highrise
Hudson River Park	Manhattan	Linear waterfront park	Highrise
High Line	Manhattan	Elevated railway conversion to linear park	Highrise
Cheong Gye Cheon	Seoul	Elevated highway removal & linear park	Highrise
Central Waterfront	***Seattle***	**Elevated highway removal & park**	**Highrise & Pier**

Location of Comparable Projects



Embarcadero – San Francisco

Elevated Highway Removal and Promenade



Overview

Before

After

Embarcadero
San Francisco, California

Located by downtown San Francisco's waterfront, the elevated Embarcadero Freeway was damaged in an earthquake in 1989 and demolished in 1991. It was replaced with a six-lane surface boulevard with waterfront promenade, completed in 2000.

Findings	Comments	Source
Property values in the adjacent neighborhoods to the Embarcadero increased by 300%.	We would need to know the time period when this increase happened and the increase in the general San Francisco area to put this figure in perspective.	Preservation Institute, 2007
"Most observers attribute the dramatic turnaround of downtown San Francisco's eastern waterfront to removing the freeway disamenity and replacing it by the boulevard/promenade amenity. This conversion, most agree, was a catalyst to a host of private investments that transformed San Francisco's waterfront...including the renovation of Pier 1 (now offices) and the Ferry Building (a market hall and offices.)" (p. 40)	The paper also notes that the freeway removal "freed up 15 acres of prime real estate, enabling large-scale redevelopment projects to take root. Urban regeneration could have been due as much to the sudden availability of large tracts of well-located urban parcels as changes in roadway infrastructure." (p. 40)	Cervero et al, 2009
Hedonic price modeling of residential sales between 1986 to 2005 within a 2-mile buffer of the Embarcadero showed that there is an amenity effect from being close to the waterfront but disamenity effect from being within earshot of the freeway and boulevard (within 0.75 miles.) Overall though, "proximity to the waterfront produces high residential values and the boulevard slightly enhanced this, with all properties within a 2-mile radius enjoying benefits." (p. 43)	The authors did not have a sufficient sample size of transactions for hedonic modeling of commercial properties.	Cervero et al, 2009

Central Freeway – San Francisco

Elevated Highway Removal and Park

Overview

Before

After

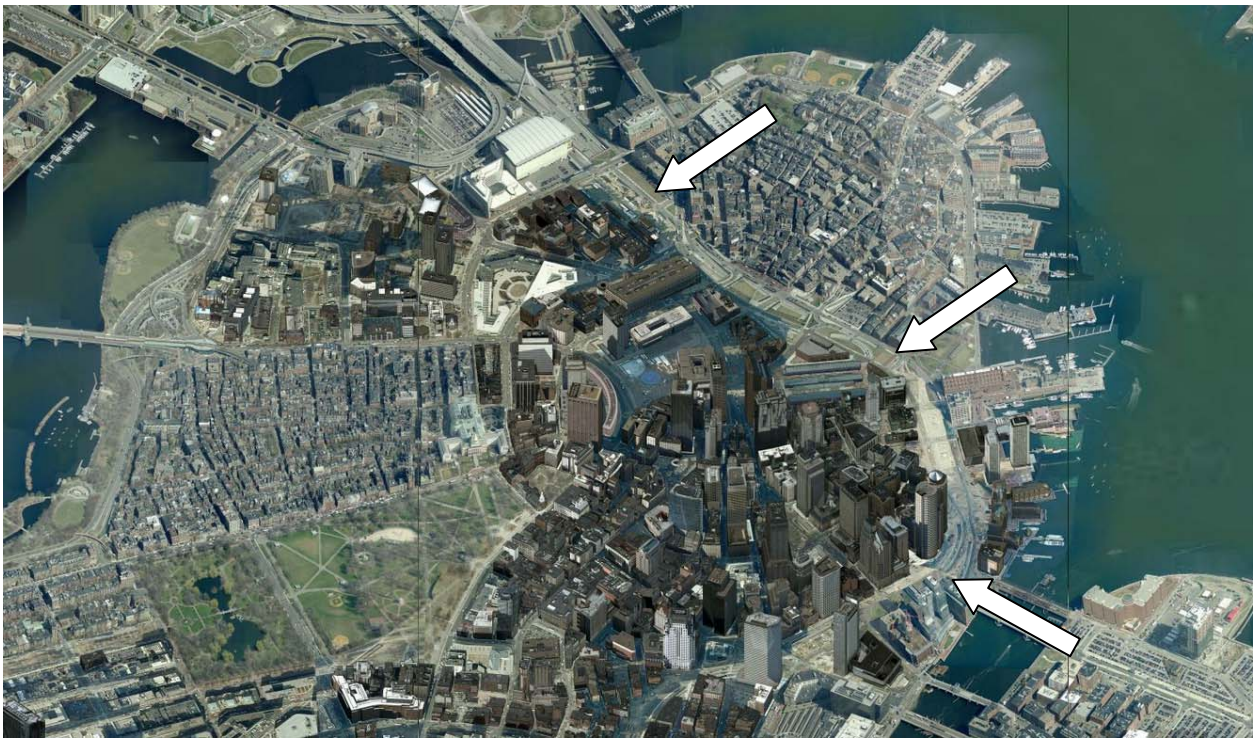
Central Freeway
San Francisco, California

In 1989, an earthquake damaged the elevated Central Freeway located in the Hayes Valley neighborhood of San Francisco. The structure was demolished in 2002 and replaced with the surface Octavia Boulevard which opened in 2005.

Findings	Comments	Source
Between 1996 and 2006, the average price of a condo in Hayes Valley rose from 66% to 91% of the San Francisco average.	Used Multiple Listing Service for data.	City of Seattle, 2008
Hedonic price modeling of residential sales between 1986 to 2005 within a 2-mile buffer of the Central Freeway indicated that prices generally increased with distance from the freeway but this was moderated when the freeway was replaced with a boulevard. The authors note that some of this moderating effect could be from other improvements such as the Hayes Green Park.		Cervero et al, 2009

Central Artery/Tunnel – Boston

Elevated Highway Removal and Linear Park



Overview

Before

After

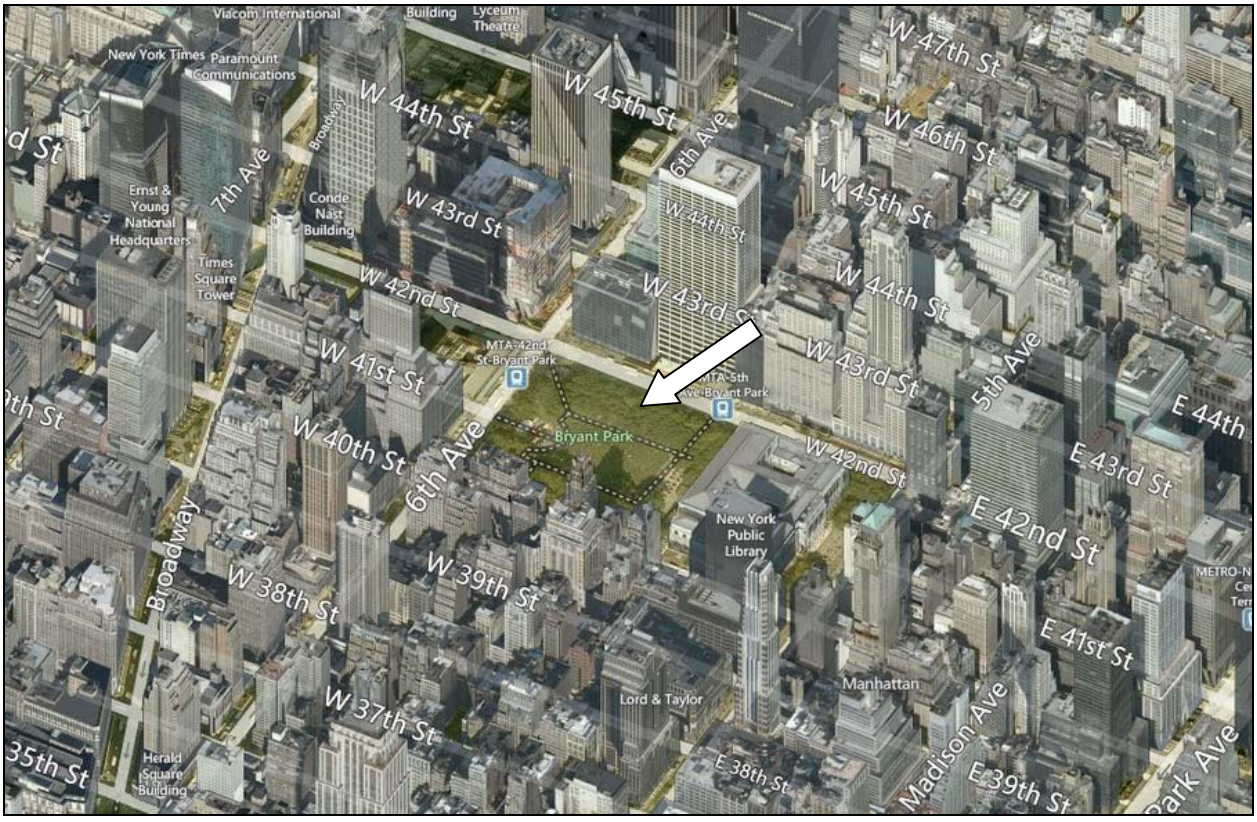
Central Artery/Tunnel Project (The "Big Dig")
Boston, Massachusetts

The elevated highway through downtown Boston was replaced with a tunnel and surface park (Rose Kennedy Greenway) with off-ramps. Construction started in 1991 and the elevated structure was dismantled in 2004. Areas of the Rose Kennedy Greenway opened in 2007-2008.

Findings	Comments	Source
Based on assessed property values (land + building value), the value of commercial properties along the mile-long Greenway increased 79% compared to a citywide increase in value of 41% between 1988 and 2003.	This does not control for the amount of new development that occurred which would substantially increase assessed property values and inflate the implied 38% benefit from the elevated structure removal and park creation. For instance, the value of 125 High Street increased 1,465% and Two International Place increased 702% because they were built in 1991 and 1992 respectively.	Palmer, 2004 (Boston Globe)
Between 2005 and 2009, $/sf assessed values in Greenway District increased by 187% from $101/sf to $290/sf (+$189/sf) for commercial properties and 241% from $162/sf to $553/sf (+$391/sf) for residential properties. This compares to the entire CBD value increases of 192% from $84/sf to $245/sf (+$161/sf) for commercial and 224% from $152/sf to $493/sf (+$341/sf) for residential.	Whether this data shows a benefit is unclear. For commercial properties, CBD values actually increased at a slightly higher rate but the Greenway District had a higher price per square foot value increase. For residential properties, the data does seem to show a benefit as the Greenway District had a higher value increase both in terms of percentage and price per square foot. However, this study does not take into account any new developments which would contribute to higher assessed values.	HR&A Advisors, Inc., 2010
Doubling of the distance to the nearest large park decreases residential condo property values by 6%. Doubling of the distance to the nearest highway increases residential condo property values by 5%.	Used hedonic modeling and assessed data from 2000 to study the relationship between residential condo prices in downtown Boston and the distance to parks and highways. Condos in the study area were 60-900 m from a large park and 60-1,300 m from a highway. The finding suggests a nonlinear relationship between distance from park/highway and property values.	Tajima, 2003

Bryant Park Project – Manhattan

Park Renovation



Overview

Before

After

Bryant Park
New York City, New York

In 1987-1992, the Midtown Manhattan park was renovated/restored. It was previously considered unsafe and a negative influence on property values.

Findings	Comments	Source
In 1992, asking rents for properties fronting the park and for Midtown in general was around $30/sf and properties a block from the park had average asking rents of about $25/sf. In 2012, average asking rents were about $100/sf, $60/sf and $70/sf for properties fronting the park, a block from the park, and in Midtown respectively. In other words, in 1992, properties fronting the park had a $5/sf or 20% premium over properties a block away. 20 years later, the rent differential has grown to about $40/sf or 63%. Properties fronting the park had about the same asking rents in 1992 but properties fronting the park now hold a 46% premium.	Some of the rent differential is due to the extensive renovations or new development of high quality office space fronting the park.	CBRE, 2012
The availability rate for buildings fronting the park is 5% in comparison to buildings a block away at 12%.		CBRE, 2012
Increased leasing activity for both office and retail for those buildings bordering the park, including 111 West 40th St, 11 West 42nd St, and 1114 Avenue of the Americas (former Grace Building) but not 500 Fifth Ave which has a lot of small spaces with no view of the park. Park used by brokers as a selling point.	The article contains a number of quotes from tenants and brokers who identify the renovated park as a newly desirable part of the neighborhood.	Deutsch, 1993 (New York Times)
Between 1990 and 2002, rent in the Grace Building increased 114% (from $35/sf to $75/sf) while the Times Square market increased 67% (from $29.50/sf to $49/sf), Grand Central increased 55% (from about $35/sf to $54/sf) and Rockefeller market increased 41% (from about $42/sf to $60/sf). Owner reported improved tenant quality, and decreased vacancy rate, rental concessions and downtime.	Grace Building is adjacent to the park's north side and is in the Times Square market. In 2001, the Grace Building was renovated, including work to the plaza, lobby and elevators which probably contributed to some of the rent increase. The improved desirability of the location drove owners to renovate to attract better tenants and rents.	Ernst & Young, 2002; Rosen, 2001
Rent increased in the Beaux Arts Building from $19/sf before the park renovation to $27/sf in 1993. In that same time frame, vacancy decreased from four (out of 10) floors to 1/3 of a floor. Between 1990 and 2002, rents went from $18-$19/sf to $60/sf, a 225% increase. This compares with 73% increases in the Penn Plaza/Garment District market, from $25/sf to $43/sf. During that time period, the building's asking rent went from 23% below to 34% above the Penn Plaza/Garment District market average. Owner reported that the park renovation increased the quality of the tenants in the building and decreased downtime and rental concessions.	Beaux Arts Building is adjacent to the park's west corner, in the Penn Plaza/Garment District market. The building was renovated in that time period, "but that does not account for the drastic increases" according to the building's property manager, David Seeve. He attributes it to the restoration of Bryant Park (main reason) and the positioning of the building as *the* building for upscale women's apparel showrooms which has no competition from the surrounding office buildings.	Deutsch, 1993 (New York Times); Ernst & Young, 2002; 8/15/12 email with David Seeve
Asking rents in the London Fog Building went from $20/sf to $45/sf (125% increase) between 1990 and 2002. Owner reported that the park increased pedestrian traffic.	The London Fog Building is adjacent to the NY Public Library's south side with views of the park to the northwest. It is in the Penn Plaza/Garment District market.	Ernst & Young, 2002
In the 1065 Avenue of the Americas Building, gross rents increased from $20/sf to $50/sf (150%) and net rents increased from $8/sf to $40/sf (400%). The owner reports that rent increased by about $6/sf to $8/sf because of the Bryant Park renovation, and the quality of the building tenants is better.	The 1065 Avenue of the Americas Building is in the Penn Plaza/Garment District market, adjacent to the west corner of the park.	Ernst & Young, 2002

Hudson River Park – Manhattan

Linear Waterfront Park

Overview

Before

After

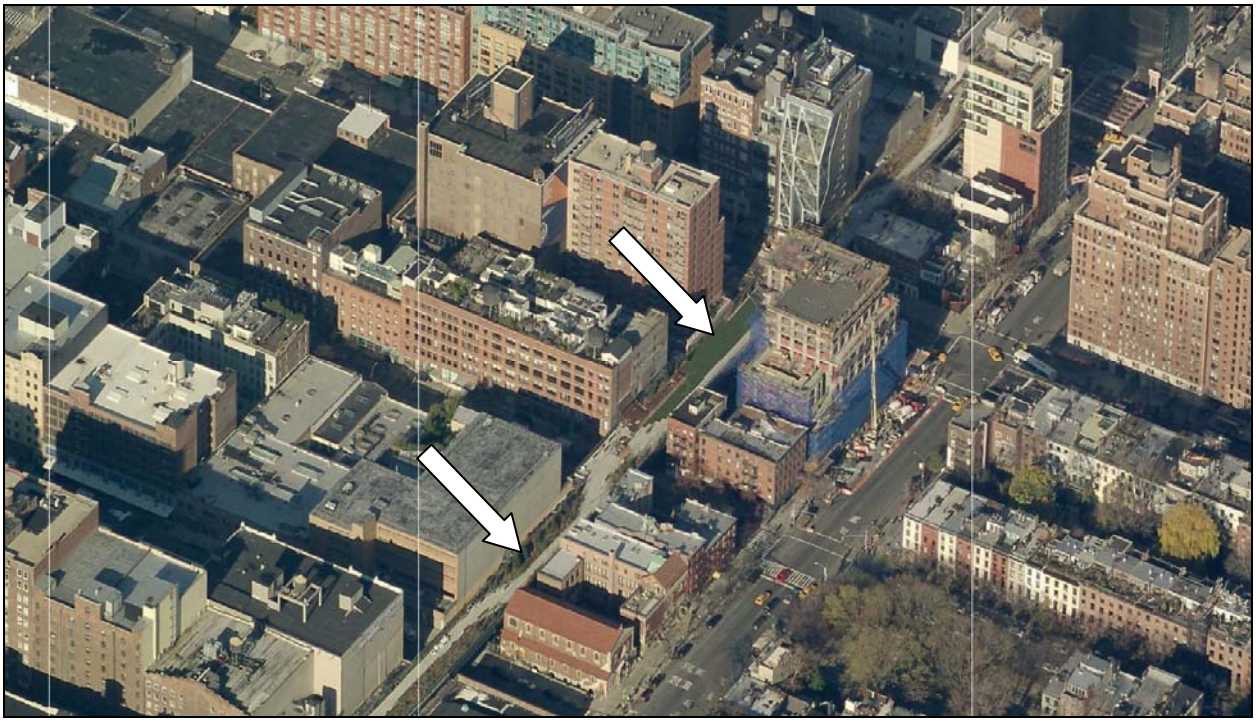
Hudson River Park
Manhattan, NY

The Hudson River Park is a five mile waterfront park on Manhattan's West Side, running from 59th St to Battery Place. This once industrial area was transformed with bike paths, green spaces, playgrounds, and recreational uses, and included renovation/replacement of the piers. The park is about 70% complete in early 2012. The Greenwich Village section of the Hudson River Park is between Clarkson and Gansevoort Streets. Plans for the Park were announced in 1990, funding was committed in 1997, construction began in 1998 and the Greenwich Village section was completed in 2003.

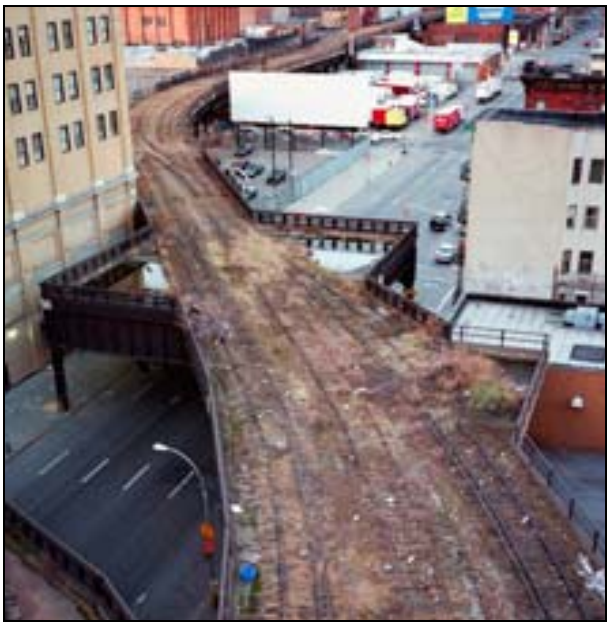
Findings	Comments	Source
In 1997, offices fronting the park had average asking rents of about $10/sf, which is 50% *lower* than average asking rents for offices a block from the park. Currently, offices fronting the park hold a 14% *premium* with asking rents around the mid-$40s.		CBRE, 2012
In 2003, there were few condo sales in the study area and they sold at similar prices to the comparison area. In 2005, condo sale prices increased by 80% in the study area versus 45% for the properties to the north and south of the completed section of the park. The study acknowledges that buyers would have paid a premium for Richard Meier's new residential buildings at Perry St in the study area (which would overstate the special benefit.)	Study area was the three blocks east of the park between 14th St and Canal St. The areas between 59th to 14th St and Chambers to Canal St were used for comparison (which had no park at that time but were planned.) The analysis does not control for the age/condition of the buildings. The comparison area had a larger number of low-priced sales and so the sales price floor for condo properties was set at $500,000.	Friends of the Hudson River Park, 2008
For non-condo properties (a mix of office, retail, apartments and hotel,) the value attributable to the park varies depending on the time frame examined but in general, properties on the second block have a higher percentage attributable to the park than the first or third blocks. For the most part, properties on the third block have a slightly higher price influence from the park than the first block. Between 1990 to 2005, the price variation attributed to the park is 2.6%, 4.9% and 3.1% for the first, second and third blocks respectively. Between 2002 and 2005, price variation attributed to the park is greater at 10.3%, 19.7% and 12.3% for the first, second and third blocks respectively.	The regression analysis uses gross sale prices and does not control for such factors as the size of the buildings and age/condition. The comparison area had a larger number of low-priced sales and so the sales price floor for non-condo properties was set at $1,000,000. The first block fronts a major arterial which could have a negative influence on values.	Friends of the Hudson River Park, 2008
The greatest value increases happened after the completion of the park. Non-condo sales prices more than doubled in the study and comparison area but "the most that can be drawn from these figures is…all the areas within the three blocks of Hudson River Park from Clinton to Tribeca experienced remarkable escalation from 2003 to 2005." (p. 17)	The study area had a greater percentage increase but the comparison area had a greater gross price increase. Clinton is at the north end of Hudson River Park and Tribeca is at the south end.	Friends of the Hudson River Park, 2008

High Line – Manhattan

Elevated Railway Conversion to Linear Park



Overview



Before

After

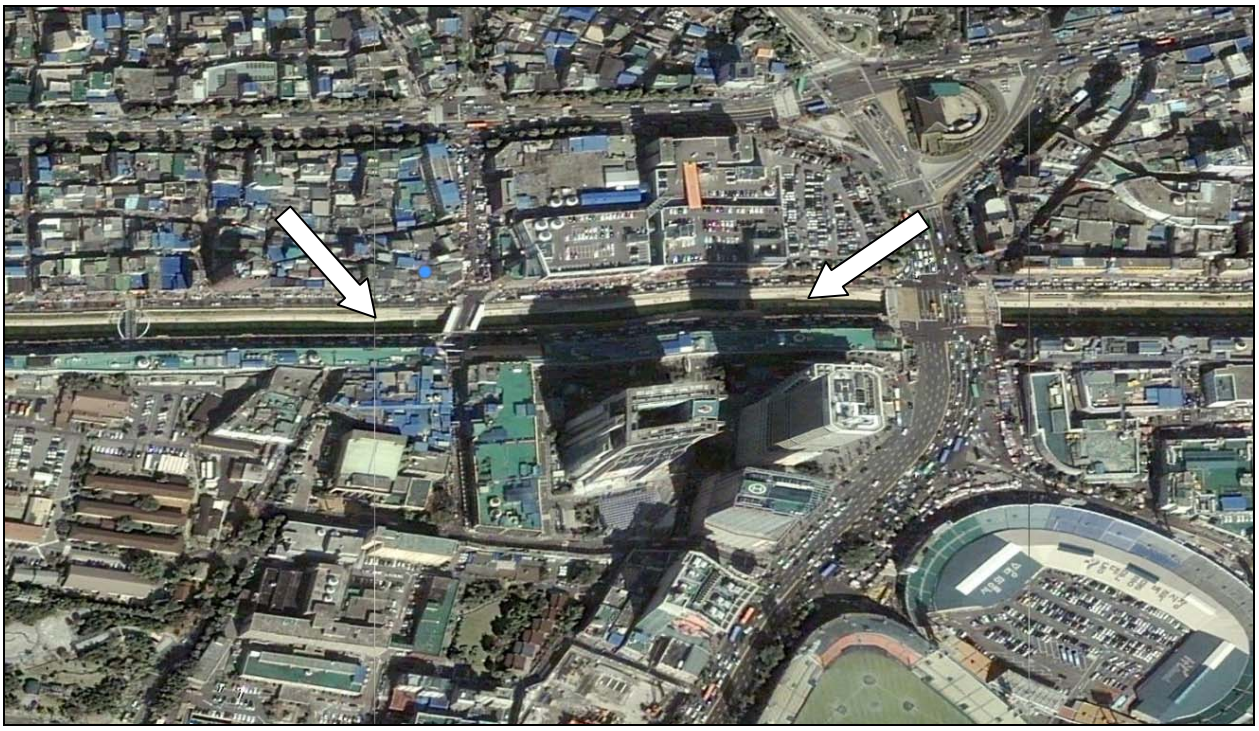
High Line
New York City, New York

Abandoned elevated railway turned into a public park. In 2002, the High Line gained the support of the City Council and launched a design contest in early 2003. The first section of the park opened in 2009, the second section in 2011, and the third (and last) section in scheduled to open in 2014.

Findings	Comments	Source
Two million visitors in 10 months after opening, half of whom were tourists. In 2011, the High Line had more than 3.7 million visitors.		NPR, 2011; Hammond, 2012
Between 2003 and 2011, assessed residential land values within a 5 minute walk from the High Line rose 103% (from $148/sf to $301/sf). Properties over 10 minutes away had a comparable land value at $150/sf in 2003, but only rose 33% to $200/sf by 2011.	The area was rezoned which would contribute to the value increase.	New York City Economic Development Corporation, 2011
"The High Line has been a very positive influence to push activities to Washington, which was sort of a back street, but now it's become very prime."	Quote from Paul Parisher, co-CEO of Taconic Investment Partners. Taconic is involved with a number of new developments along the Highline.	Gregor, 2010 (New York Times)
"Amanda Burden, the city's planning director, emphasized the boost to property values, saying that in one building that abuts the lower section of the High Line, the price of apartments had doubled since the park opened, to about $2,000 a square foot."	We would need to know how much apartment prices have escalated in the general area to put this in perspective.	McGeehan, 2011 (New York Times)
"With available office space on the High Line Park limited, tenants have demonstrated a willingness to pay above-average rents - even for older stock" (p. 5). Office rents are 51% higher for properties fronting the High Line compared to a block away.		CBRE, 2012
Buildings fronting the High Line have a 4% availability rate, compared to buildings a block away which have a 21% availability rate. Before the park, they both had high availability rates. "It was only after plans were announced for the High Line Park that the availability rate differential began to widen." (p. 5)		CBRE, 2012

Cheong Gye Cheon – Seoul

Elevated Highway Removal and Linear Park



Overview

Before

After

Cheong Gye Cheon (CGC)
Seoul, South Korea

In 2003-2005, the 6-km Cheong Gye Cheon elevated freeway located in downtown Seoul was removed and the stream buried underneath was restored and turned into a linear park.

Findings	Comments	Source
"Commercial parcels within 100 metres of the greenway were worth 33 per cent more per square metre than otherwise-comparable parcels lying more than 500 metres away; when the elevated freeway was in place, the differential was only 20 per cent" (p. 2786). Between 100 m and 200 m, marginal effect is 24% for greenway, 19% for freeway. Difference decreases as distance from CGC corridor increases. Around the same time, a city park was created near City Hall (considered the heart of the CBD) and the bus transit system was improved so this may contribute to some of the effect.	The study used assessed land values which the authors considered a reliable proxy for market value based on interviews with local assessors. The study compared 2001-2002 (freeway) to 2005-2006 (greenway) land values using multilevel modeling.	Kang and Cervero, 2009
Residential land values within 0.5-3 km from freeway ramps were discounted compared to parcels greater than 3 km from CGC, "indicating visual blight and noise depressed values within this zone" (p. 2789). Within 500-1,000 m, -15% marginal effect. By comparison, greenway increases values by 6% in that same zone. For properties between 0-500 m, positive effect of 8%.	No statistically significant difference for 0-0.5 km from freeway ramps but few residential properties are located that close so it might be a sample size issue.	Kang and Cervero, 2009
Adjacent land values increased by 30% on average.	Cited Seoul Development Institute 2005 study.	City of Seattle, 2008
Specific matched pair showed two apartments near CGC increased 25% in price. During same time frame two apartments further away saw only 10% increase. Office rent near CGC rose 13%, more than comparable buildings further away.	Cited Seoul Metropolitan Government, 2006.	ITDP, 2012
For properties within 50 m, land value increased by 30-50%, double the rate of other areas.		Landscape Architecture Foundation
The park has become a tourist destination with an average of 53,000 visitors on a weekday and 125,000 visitors on a weekend.	This is almost 27 million visitors annually.	ITDP, 2012