

BATTLE McCARTHY ©

Consulting Engineers & Landscape Architects



PROJECT:

Hudson Yards, Manhattan, New York

CLIENT:

Classified

ARCHITECTS:

Cooper Robertson & Partners/Arquitectonica

BM SERVICES:

Sustainable Masterplanning

VALUE:

Classified

DESIGN BRIEF

To develop a sustainable development framework for an urban development plan for Hudson Yards, a 465 acre site in Far West Midtown, Manhattan. The area is to be re-zoned for the first time since 1961 to meet the City's need for an expanded Central Business District and provide new housing and public parks in an environmentally beneficial manner.

DESIGN INITIATIVES/ACTIONS UNDERTAKEN

Through the creation of a sustainable development framework, targets and indicators, the City will address the impact of building 30 to 40 million ft² of new development on energy and water resources, transport, microclimate, pollution, landscape and ecology.

The site is currently dominated by transportation depots with a small amount of residential property around the periphery. The Lincoln Tunnel (vehicular), presented significant challenges to the project including severe traffic congestion, air and noise pollution and numerous unattractive entrances/exits from the tunnel. Coupled with an absence of open space, less than 1% of the area, the challenge was to create a suitable environment to attract commercial and residential development into the area.

In this respect, the project team examined a number of environmental strategies. The strategies included building massing to assist with the dispersion of airborne pollutants in the vicinity of the Lincoln Tunnel, a water reclamation and recycling plant to meet all non-potable water demands, the creation of new public parks, a civic plaza and streetscape improvements to encourage greater pedestrian activity and provide a support structure for urban ecology.

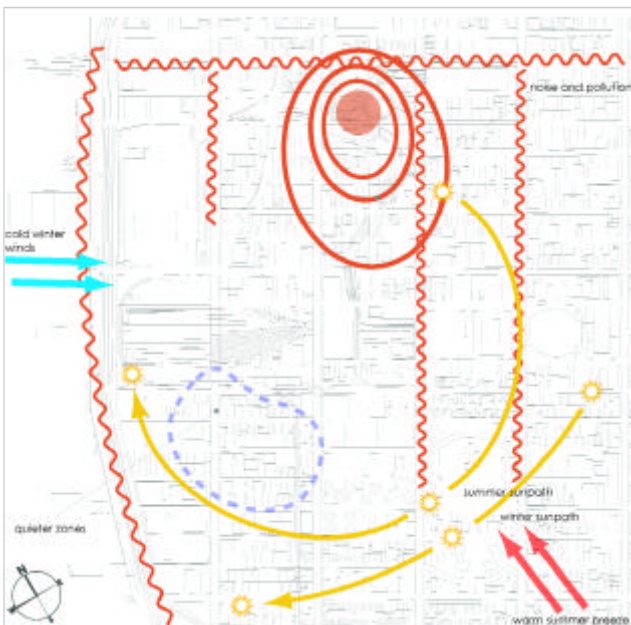
The extension of the number seven subway formed the backbone of a sustainable transport strategy, which included replacing conventional buses with alternatively fuelled vehicles and reinforcing key pedestrian and cycle links between Pennsylvania Station and the new Hudson River Park. The project also has a target of zero carbon emissions by 2020. This is to be achieved by implementing low energy building guidelines, promoting the development of renewable energy sources and carbon trading/carbon sequestration.

The development proposals promoted an integrated approach to landscape design incorporating best management practices for drainage and promotion of urban ecology. A five point plan included the revitalisation of a disused elevated railway, the High Line, as a pedestrian/wildlife corridor, improvements to streetscape and public open space by extensive planting of native tree and shrub species, encouraging public buildings to adopt a green roof policy, reinforcing the ecological potential of the river edge, and use of semi-natural and formal water elements as a key component of the landscape design.

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High air and noise pollution levels around the Lincoln Tunnel



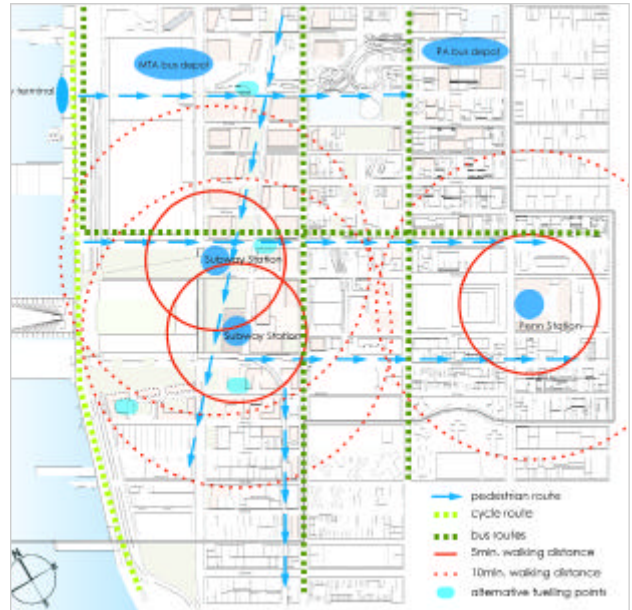
Microclimate analysis



Hudson River - estuarine sanctuary



New York Jets Stadium



Transport links



High Line - disused elevated railway



Landscape and Ecology