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**New** York  
**New** Visions  
Growth Strategies Team

**Possible Futures**  
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**New York New Visions** is a pro-bono coalition of architecture, engineering, planning and design organizations committed to honoring the victims of the September 11 tragedy by rebuilding a vital New York. To learn more about New York New Visions, and to download the February 2002 report, visit [www.newyorknewvisions.org](http://www.newyorknewvisions.org).



## Analysis of urban structure in Lower Manhattan

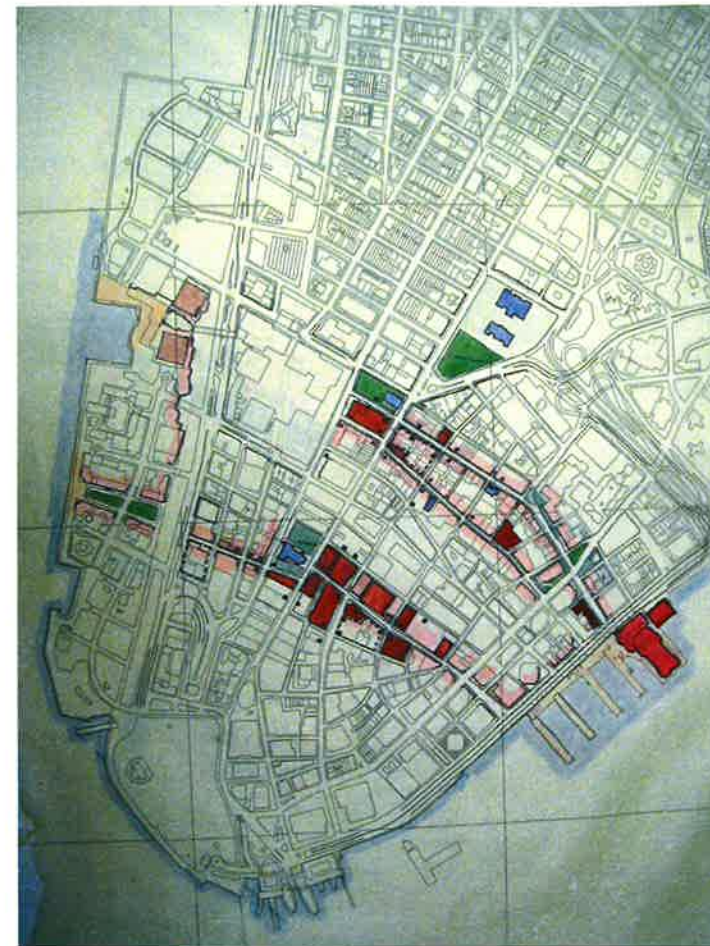
Over the course of New York City's three centuries of development, a functional and visual hierarchy has evolved in the street pattern in the area around the World Trade Center site. Three particular systems demand attention as plans for the site are developed: east/west connections, north/south connections, and connections to the waterfront. The first part of this section documents the existing connections in all three systems. The second part explores the impact that potential approaches to the World Trade Center site might have on these systems.

### East/West Connections

There are two primary corridors that connect the eastern and western sections of Lower Manhattan, the Fulton Street/Dey Street corridor, and the Wall Street/Rector Street corridor (see figure to right).

#### CHARACTERISTICS OF THE FULTON/DEY STREET CORRIDOR

- Fulton Street is the linkage for a larger open space network that includes the North Cove Harbor and Winter Garden at Battery Park City, St. Paul's Chapel, visual and physical connection to City Hall Park, John Dulevy Square at the intersection with Gold Street, the open spaces at Water Street, and the piers at South Street Seaport.
- The grade change from Church Street to West Street across the World Trade Center site creates a variety of urban design issues that must be addressed: strategies for crossing West Street (at grade? a bridge? a platform?); connections to the upper level of the Winter Garden; strategies for accessing the below-grade transit concourse; treatment of the intersection with Greenwich Street as it crosses the site.
- Fulton Street is lined with small scale, pedestrian oriented retail.
- Fulton Street is lined with transit access points and is probably the most densely serviced corridor in the city.
- There is a viewing point at the intersection with Broadway that allows river-to-river views from the Winter Garden to the towers of the Brooklyn Bridge. There is a viewing axis from Dey Street to the Winter Garden.
- St. Paul's Chapel marks the intersection with Broadway; the churchyard provides a link to the Church Street edge of the World Trade Center site.
- St. Paul's Chapel is the site of most of the impromptu memorials and the temporary viewing ramps.
- The ground floor of the former ATT building opposite St. Paul's is an open hypostyle hall that pedestrians can cut through at grade.
- There is a major soft site (a building site not developed at its maximum possible capacity, or used for purposes not contributing to the rest of the area) at the block bounded by Fulton, Dey, Broadway and Church. This site has also been mentioned as the possible location for the major entrance to the underground transit concourse.



East/West Corridors

#### CHARACTERISTICS OF THE RECTOR STREET/WALL STREET CORRIDOR

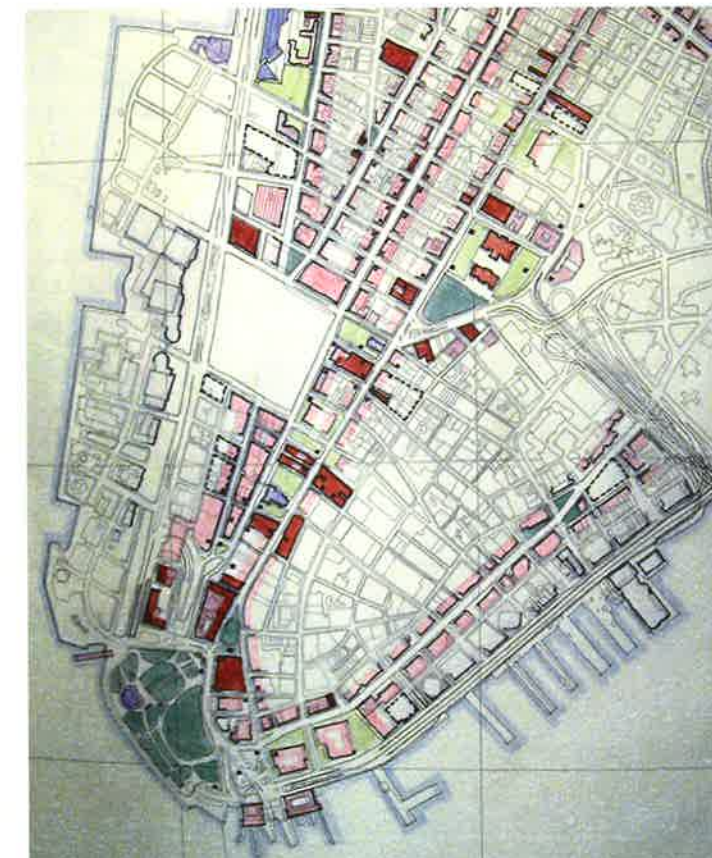
- This is the east/west link from the Hudson River to the east side piers, where there is the potential for redevelopment, perhaps of a major cultural facility.
- Wall Street is a narrow and dramatic canyon lined with landmark buildings.
- Rector Street west of Trinity Place is extremely dark and narrow with little pedestrian activity.
- Trinity Church creates a focus at the intersection of this corridor with Broadway.
- The corridor terminates at West Street and the linear Hudson River Park.
- This corridor is heavily serviced by transit.
- There are two significant soft sites on the corridor, one on the south side of Rector Street between Washington Street and West Street; and one on the south side of Wall Street between Broad Street and William Street.

### North/South Connections

Three streets — Greenwich, West Broadway, and Church — are the primary north/south connections on the west side of Lower Manhattan.

#### CHARACTERISTICS OF GREENWICH STREET

- Greenwich Street and West Broadway intersect at the edge of the World Trade Center site. With the reconfiguration of Seven World Trade Center, a small triangular park will be formed at the intersection.
- To the north, Greenwich Street connects to two schools: PS 234 and Borough of Manhattan Community College.
- Through the "Greening of Greenwich" project undertaken by the Economic Development Corporation over the last several years, sidewalks were recently widened and planted. Most of the open space resources are on the west side of Greenwich Street.
- There is a significant soft site on Greenwich at Warren Street, just south of PS 234.
- With the proposed reconfiguration of Seven World Trade Center, Greenwich Street will have a visual axis onto the World Trade Center site.
- There are several soft sites along Greenwich Street south of the World Trade Center site.



North/South Corridors

- Greenwich Street is essentially residential, with neighborhood-oriented businesses and restaurants. It is "Tribeca's Main Street."
- The scale of buildings is primarily low-rise, with a number of historic façades on the east side.
- There is a subway stop at Greenwich and Rector.
- Traffic calming will be needed on the new Greenwich corridor.

#### WEST BROADWAY

- Two street geometries intersect at West Broadway, creating a series of small triangular parks approximately every five blocks.
- West Broadway is the main southbound traffic alternative to Broadway.
- Frontages are somewhat fragmented as one approaches Canal Street from the south—parking lots, a substation, left-over spaces at the intersection of the two street geometries.
- Uses are basically service and retail with residential above. Uses south of Murray Street are primarily office.
- West Broadway has several historically and architecturally significant buildings, including the monumental Western Union Building at West Broadway and Worth Street.
- Buildings are typically low rise, five-story buildings.
- The #1, #2 and #3 trains stop at Chambers Street and the #1 train stops at Franklin Street.

#### CHURCH STREET

- This is part of a one-way pair with Broadway.
- Church Street was widened at one time and some of the frontages on the west side are still exposed as party walls.
- This is as much a vehicular corridor as a pedestrian corridor.
- Church Street has heavy lunchtime pedestrian traffic from office workers (convenience retail, locksmiths, newsstands, fast food and luncheonettes, lower-end retail outlets, delis, etc.).
- The A, C, and E trains stop at Chambers Street. The E train terminates near the World Trade Center site.
- The cemetery of St. Paul's Chapel, which is an important part of the open space network, is along Church Street at Fulton.
- Just south of St. Paul's are major office buildings and the Millennium Hotel. There are widened sidewalks around these buildings.
- Century 21, a major department store, is opposite the World Trade Center site.
- The space around Trinity Church is a monumental and well-defined space flanked to the north and south by historically significant buildings.
- Church Street becomes Trinity Place south of the World Trade Center site.
- South of Rector Street, Trinity Place loses its definition as it approaches the tunnel entrance.



Waterfront

### The Water's Edge

One of Lower Manhattan's most magnificent assets is the waterfront that surrounds it on three sides.

#### CHARACTERISTICS OF THE LOWER MANHATTAN WATERFRONT ON THE WEST SIDE

- The Battery Park City and World Financial Center redevelopment projects dominate this side of the waterfront: new residential neighborhoods, major office and retail developments, the Winter Garden. The esplanade is one of the major open space resources for Lower Manhattan.
- The south end of the esplanade is anchored by Robert F. Wagner Park, Pier A, Museum of Jewish Heritage and the proposed Skyscraper Museum.
- There are virtually no pedestrian services or activity on either side of West Street. It is a vehicular corridor.
- Several beautiful historically significant buildings are on the east side of West Street.

- The design of the block between Murray Street, Barclay Street, West Street and the water has been changed from the original master plan to accommodate what were temporary ball fields.

### Urban Design Guidelines for East/West Connections

#### PROPOSITION A

**What conditions are established and what issues are raised for east/west connections if the entire World Trade Center site remains open?**

- The east/west corridor terminates at the edge of site or is incorporated into the landscape architecture of the memorial park.
- The open space connection becomes one of the open space resources for Lower Manhattan.
- Access to below-grade transit infrastructure must be designed into the park.
- Any transit vehicle (for example, shuttle buses) will have to go around the site or be accommodated with a right-of-way of some kind in the park.

#### Guidelines:

- Maintain visual corridor between Winter Garden and St. Paul's at the western end of the Fulton Street corridor.
- Landscape design should respond to the character of open space around St. Paul's and the treatment of West Street as a linear park.
- Integrate well-designed structures into the park to access below-grade infrastructure.

#### PROPOSITION B

**What conditions are established and what issues are raised for east/west connections if a continuous open space is created across the northern portion of the World Trade Center site?**

- The Fulton/Winter Garden view corridor is maintained
- The character of other open spaces downtown is maintained: that of contained, discrete, volumetric "rooms" which can be seen as part of the larger system of open spaces in the corridor.
- The connection becomes a part of the open space resources for the community.

#### Guidelines:

- Massing of the buildings must create a well-defined edge to the open spaces and allow light into the new park spaces.
- Facades have to support the public spaces in terms of transparency and visual interest.

- Ground floor uses should support the park, for example cultural and retail uses that could spill out into the park. The park spaces could support a museum or memorial-related structure on occasions of large public events.
- If there are new buildings on West Street, these should frame a new open space on West Street that is part of the proposed open space system.
- The intersection with Greenwich Street should be articulated.
- Access to below grade infrastructure into the buildings should be integrated.

#### PROPOSITION C

**What conditions are established and what issues are raised for east/west connections if the Fulton/Dey Street corridors are built across the World Trade Center site as streets and blocks?**

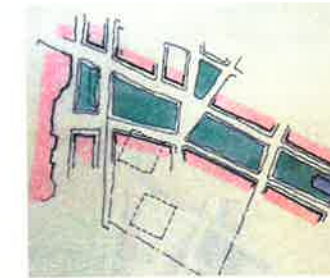
- This strategy provides for the strongest extension of the corridor street space across the World Trade Center site. It is possible to complete the Fulton/Dey Street corridor by designing streets and buildings as well as open spaces.
- Loss of visual and physical connection between Fulton Street and the Winter Garden and between the two rivers, while reinforcing the Dey Street corridor across the site.

#### Guidelines:

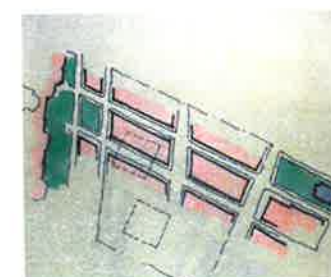
- Extend the character of the rest of the corridor with a finely-grained and varied pedestrian experience.
- Provide building setbacks to allow for sunlight penetration, widened sidewalks, seating, small parks and open spaces.



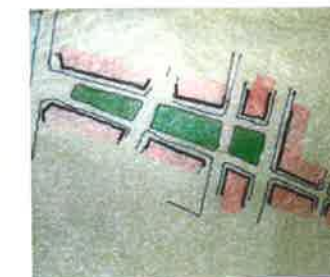
Proposition A



Proposition B



Proposition C



Proposition D—Wall Street

- Incorporate access to below grade infrastructure in the design of buildings.
- If West Street is not built upon, the ends of the blocks facing West Street should frame a new park at the entrance to the Winter Garden.
- Articulate intersection with Greenwich Street.

#### PROPOSITION D—WALL STREET

**What conditions are established and what issues are raised for east/west connections if the Wall Street/Rector Street corridor is extended across West Street by building a new park?**

- New buildings on West Street could define a new park that extends the open spaces at Rector Place in Battery Park City across West Street.

#### Guidelines:

- New buildings on West Street should respond to the scale and character of the buildings in Battery Park City to create the sense that Rector Place Park is extended east.
- Extend landscape and streetscape standards at Rector Place across West Street.
- Consider pedestrianization of Rector Street.
- Where there are opportunities, redevelopment of soft sites around Rector Street should create more light and air and a pedestrian-friendly environment.
- With the extension of Greenwich Street, pedestrian issues at the intersection of Greenwich and Rector Street require special consideration.

### Urban Design Guidelines for North/South Connections

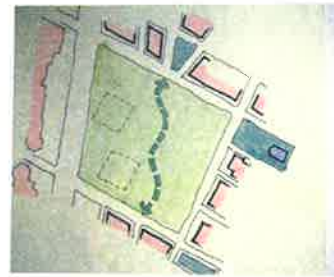
#### PROPOSITION A

**What conditions are established and what issues are raised for north/south connections if the entire World Trade Center site remains open?**

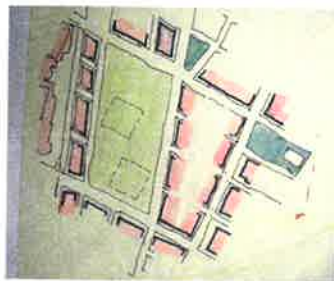
- The north/south corridor terminates at the edge of the site or is incorporated into the landscape architecture of a memorial park. Even if the design of the park provides for the extension of the Greenwich or West Broadway corridors, the large park essentially becomes the terminus of the two corridors.
- The open space connection becomes one of the open space resources for Lower Manhattan.
- The Church Street corridor opens up to the west and the existing buildings on the east side of Church Street, becoming the edge of a new park.

**Guidelines**

- Maintain visual corridor through the site and a physical connection for Greenwich Street/West Broadway across the site.
- The landscape design of the park should respond to the importance of the corner of Church Street and Fulton (St. Paul's) as well as to the new open space that is likely to be created at the Seven World Trade Center site.
- The design of the park should support the west edge of the Church Street corridor at the World Trade Center site.



Proposition A



Proposition B

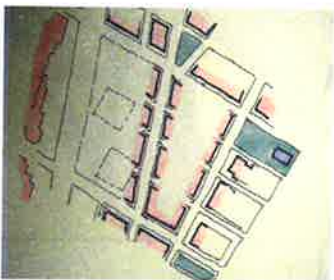
**PROPOSITION B**

**What conditions are established and what issues are raised for north/south connections if buildings are confined to the portion of the World Trade Center site east of Greenwich Street?**

- The Church Street corridor extends past the World Trade Center site as a built street.
- There will now be a street, with buildings on one side, which will extend the corridor across the World Trade Center site. The large open space will still create a terminus for the corridor.
- If the area south of Liberty is redeveloped, it will reinforce the north/south connection.
- Greenwich Street north of the World Trade Center site may become more intensively used and trafficked as a result of the increased connectivity.
- The connection is part of the open space resources for Lower Manhattan.

**Guidelines**

- Massing of the buildings must create a well defined edge to the new park.
- Facades have to support the public spaces in terms of transparency and visual interest.



Proposition C

- Ground floor uses have to support the park, for example cultural and retail uses that could spill out into the park. The park spaces would support a museum or memorial related structure when there were larger public events.
- The design of the buildings and the park should articulate the intersection with Fulton Street.
- The street must manage any vehicular traffic in such a way as to allow for easy east/west pedestrian movements.
- The design of the park should respond to the intersection of West Broadway and Greenwich Street and the reconfiguration of the Seven World Trade Center site.
- The design of the park should support the west edge of Greenwich Street. This edge of the park should recognize the pattern of open spaces and widened sidewalks along the west side of Greenwich north of the World Trade Center site.

**CHURCH STREET**

- The buildings at the intersections with Fulton and Dey Streets should acknowledge the extension of the east/west corridors onto the site.
- The massing of the buildings should reflect the change between the intermediate scale of this corridor north of Fulton Street and the higher scale of the buildings between Vesey and Liberty.
- The buildings at Fulton and Vesey Street should help define the space around St. Paul's Chapel.
- Height and setback should allow sunlight penetration.
- New buildings at the southern edge of the site should support the role of Liberty Street as a link between the Church Street and Greenwich/West Broadway corridors.

**PROPOSITION C**

**What conditions are established and what issues are raised for north/south connections if a new street with buildings on both sides completes the Greenwich/West Broadway corridor across the World Trade Center site?**

- There will be new buildings around the three-way intersection of Greenwich, West Broadway and Vesey Streets where a new park may become part of the Seven World Trade Center rebuilding.
- Greenwich Street north of the site will become more heavily trafficked and used as a result of increased connectivity, especially if the area south of Liberty at the south end of the corridor is redeveloped.
- Because the Greenwich Street/West Broadway corridor is extended past the site, there is greater connectivity to the east/west connection at Rector Street and to the redevelopment sites south of Liberty. This intersection should be redesigned as part of the redevelopment of this area.
- There is less overall new open space at the World Trade Center site.

**Guidelines**

- The buildings at the three-way intersection of Vesey, Greenwich and West Broadway should support open spaces that may be part of the reconfigured Seven World Trade Center.
- Along the west side of the new street, consider an extension of the widened sidewalks and open spaces on the west side of Greenwich Street north of the World Trade Center site.
- Articulate the intersections with the major east/west corridors (Fulton, Dey, Liberty).
- Height and setback should allow for sunlight penetration onto the street.

**Urban Design Guidelines for Waterfront Connections**

**PROPOSITION A**

**What conditions are established and what issues are raised for waterfront connections if West Street is built over by creating new blocks and side streets to handle only local traffic and access?**

- There is less open space available, although this strategy can be paired with a strategy in which more of the World Trade Center site remains unbuilt.
- The Hudson River Park continues in the boulevard configuration already established north of Battery Park
- Development may be less transit accessible.
- The new blocks can create a variety of streets and open spaces to extend the existing street pattern to Battery Park City and the waterfront.
- If new development on West Street extends opposite the World Trade Center site, these buildings can help define the western edge of a new memorial park as well as support the continuation of the east/west corridors to the World Financial Center and the waterfront.
- Greenwich Street has historic meaning as the water's edge. Curve slightly through the World Trade Center site.

**Guidelines**

- Create strong connections between new development on West Street and the transit resources around the World Trade Center site, both for pedestrians and surface transit.
- Configure new buildings on West Street in ways that support and extend the existing open spaces east and west of West Street, such as Rector Place in Battery Park City, the Liberty Street gateway to the World Financial Center and especially, the Winter Garden.
- Respect the scale and character of the historic buildings on the east side of West Street.
- Buildings on West Street opposite the World Trade Center site should support a memorial park, for example cultural and retail uses that could spill out into the park. A memorial park would support a museum or memorial-related structure when there were larger public events.

- New development must not create a wall effect. The scale and siting of buildings should extend the existing street and block pattern.

**PROPOSITION B**

**What conditions are established and what issues are raised for waterfront connection if a linear park is created over West Street?**

- Creates a major new open space resource for Lower Manhattan.
- Presumes that development sites are found elsewhere in Lower Manhattan.

**Guidelines**

- Landscape design of the park should reinforce east/west connections to Battery Park City and the waterfront.
- The design of the park should respond to important east/west connections including Rector Street, Liberty Street and the entrance to the Winter Garden.
- The landscape architecture of the park should relate to the various parks, set backs and open spaces on the west side of the right-of-way.



Proposition A



Proposition B

# Alternative urban design strategies for the World Trade Center site

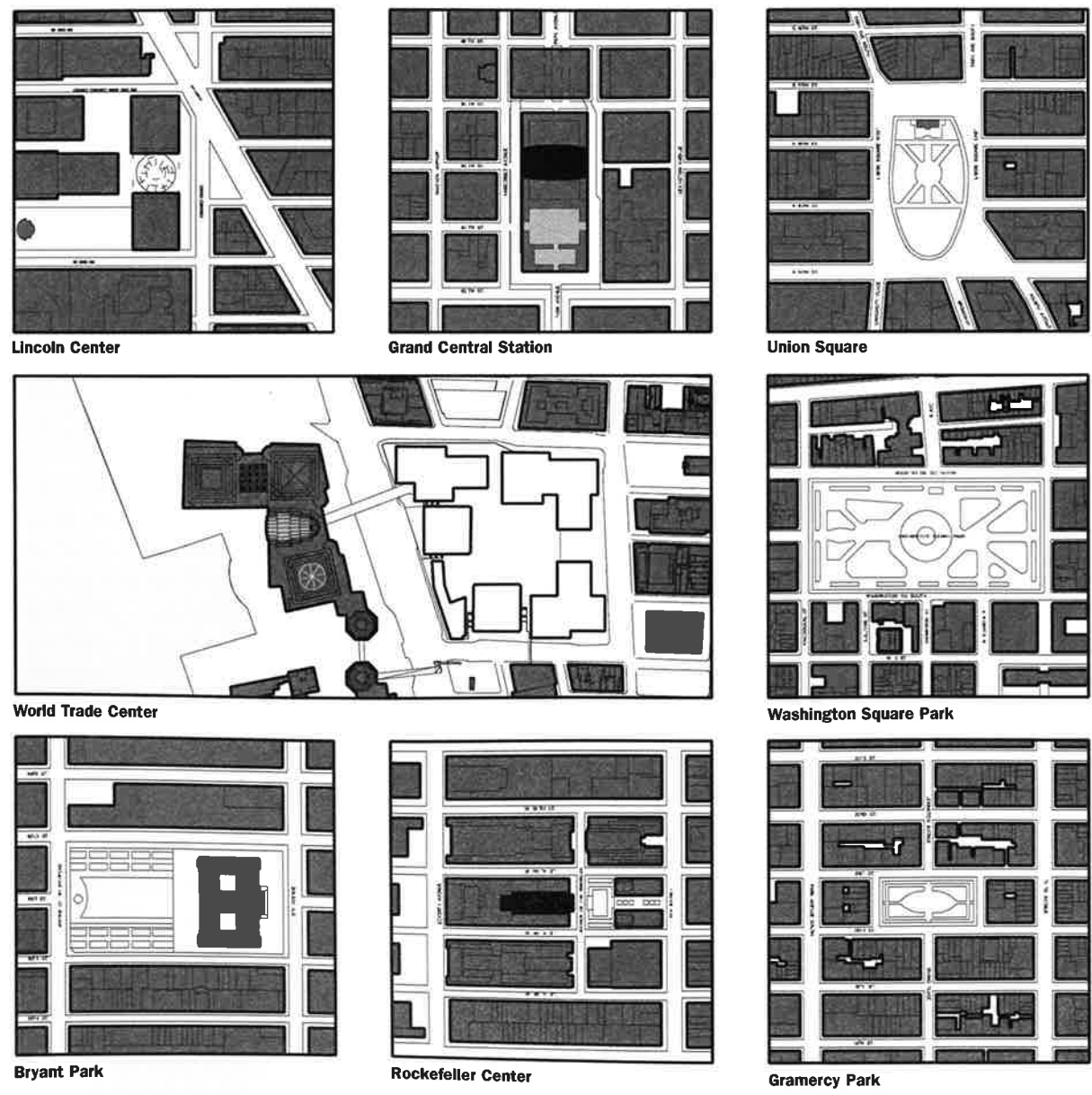
This section of the report is comprised of several subsections that offer different ways to approach thinking about the future of the World Trade Center site. The illustrations to the left show figure-ground (built space and open space) drawings of the World Trade Center site and other iconic public spaces in New York City. This comparison sets the stage for multiple potential approaches to the site that assume varying degrees of built versus open space.

The second part of this section presents a matrix of site plan diagrams, followed by a chart evaluating the diagrams according to how

well they meet the principles presented in the New York New Visions report "Principles for the Rebuilding of Lower Manhattan," of February 2002. Comparative bulk studies of the building masses that might result from five of the diagrams are presented to give an idea of the implications of these approaches at one level of development.

The final parts of this section present a scenario for the development of West Street as building sites and open space, as an alternative to building on the World Trade Center site, followed by an analysis that looks at the transfer of air rights from the World Trade Center site to other nearby sites.

## Comparative figure/ground diagrams of New York open spaces



Comparative Scale Plan of the World Trade Center (in the middle) with the plans of 7 other major places in New York City, all at the same scale.

The site of the World Trade Center is very large. It is not just an individual building lot by itself, it is the size of a whole district in New York, equal to all of Rockefeller Center, or to the entire Grand Central Station district, incorporating the former Pan Am building, the Chrysler building, and the entire railroad terminal complex.



## Matrix of diagrams of memorial site, open space, circulation and building site alternatives

To provide a framework for discussion of how future treatment of the World Trade Center site might deal with the relationship of a memorial and possible development on the site, the matrix presented on the following pages organizes a variety of different site plans according to the approach each embodies toward the footprints of the World Trade Center towers.

### ALTERNATIVES SERIES 1: The entire World Trade Center site remains open space.

The entire site is considered the memorial. This approach satisfies the most expansive conceptions of the definitions of "sacred ground" and disentangles off-site development issues from a complex and necessarily time-consuming memorial process. Issues include: the need to find new development sites elsewhere that are close enough to take advantage of the significant transportation resources that are being rebuilt at the World Trade Center site; the need to find appropriate ways for any transit and other facilities under the site to be accessed; and the need to reconnect the site to the waterfront, Battery Park City and the rest of Lower Manhattan, relying exclusively on the landscape design of a memorial park.

### ALTERNATIVES SERIES 2: New development is limited to areas mostly east of Greenwich Street and north of Fulton Street, leaving a large open space that includes the footprints of the towers.

This creates a large precinct of space around the locations of the World Trade Center Towers. Well-designed buildings could create a powerful setting for a large memorial and open space. A significant amount of development at the transit resource is possible. As above, the development process is largely disentangled from a complex memorial process. Issues include the need to find transit-accessible development sites elsewhere; otherwise, in the more aggressive development scenarios, buildings on proposed building sites may become out of scale. Also, while new buildings along the east edge of the site help connect the site to Lower Manhattan, the connections to Battery Park City and the waterfront continue to rely exclusively on the landscape design of the memorial park.

### ALTERNATIVES SERIES 3 AND 4: The footprints of the towers are acknowledged, either as open spaces or as built memorial structures, with the remainder of the site either fully developed or partially developed around contiguous open space.

This strategy has the advantage of providing significant amounts of transit-supportive development on the site as well as enabling many

opportunities for reconnecting the site to Lower Manhattan along each of the four edges of the site. Whether the tower locations are built upon or preserved as open spaces, the architecture around these sites can create a powerful architectural setting for the memorial. Issues are raised around the timing and implementation of a master plan in which the design of new buildings and the layout of new streets is completely integrated with the design and experience of the memorial and further constrained by the specific locations of the former towers. This strategy also relies on consensus about a very fine-grained understanding of what portions of the site are or are not most significant for the memorial.

### ALTERNATIVES SERIES 5: The entire site is available for development on a new street and block system.

Here, the planning of the site is completely unrelated to the locations of original World Trade Center structures. This does not necessarily mean that the memorial is off-site: in fact, the option is a mirror image of the first option, in which the memorial can be layered over the entire site in various ways. In addition to the advantages discussed above for offering the most opportunities for finding urban design solutions to the connectivity issues, this strategy potentially offers the most opportunities for different kinds and scales of development, including the incorporation of program space devoted to the memorial. It also has the potential for transit supportive development commensurate with the original World Trade Center complex. Issues include the fact that the total of the net new open space that would be part of this extension of the Lower Manhattan neighborhood onto the site would not be comparable with the amounts of open space created under the first two scenarios. More importantly, this option assumes the complete resolution of the many highly charged issues regarding the meaning and extent of the "sacred ground" at this site.


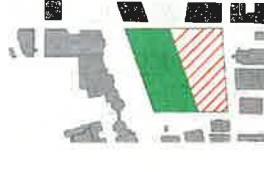

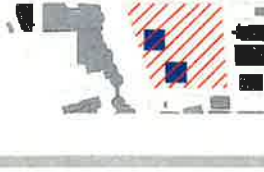

Issues relating to all of the alternatives include: the impact on how the rebuilding can be sequenced; how to apportion public versus private funding; how responsibility for the various components can be divided in a manner that will assure continuity, quality, and freedom of architectural expression.

# Matrix of diagrams of memorial site, open space, circulation and building site alternatives

## A note on methodology used for density calculations

The plan diagrams indicate generic open space, street grid, and development parcels without regard to uses, density or building configuration. As a simple assessment of each plan alternative, the square footage of each buildable parcel was determined (streets and open space were not included). The amount of built space that could be produced on the buildable parcels was then calculated at two levels of FAR (the floor area ratio, or built floor area divided by the size of the buildable parcel): at an FAR of 15, which approximates the average FAR of a New York City district that combines medium-to-high density business with high-density residential development; and at an FAR of 21 (equivalent to the highest density business district). A calculation was also carried out to determine what FAR would result if 10 million square feet were built on the site. As comparative information, the floor area ratio of above-ground built space that existed prior to 9/11, based on the ground area of the World Trade Center complex building footprints, was approximately 27.

High FARs were purposely chosen to illustrate the implications of rebuilding a large amount of space on the site; we present these figures for education and for discussion, not as endorsement. The determination of what uses will be developed on the site, and at what densities, is obviously a critical public policy choice.

	MEMORIAL TYPE	IMPLICATIONS	VARIATION A	VARIATION B	VARIATION C	VARIATION D	VARIATION E
1	<b>Large Open Space</b> 	16 acre site: undeveloped Open space: full site Tower footprints: undeveloped Off-site development: extensive					
			15 FAR=5,058,750 21 FAR=7,082,250 30 FAR=10,000,000	15 FAR=4,687,500 21 FAR=6,562,500 32 FAR=10,000,000	15 FAR=4,687,500 21 FAR=4,582,500 32 FAR=10,000,000	15 FAR=3,933,000 21 FAR=5,506,200 38 FAR=10,000,000	
2	<b>Partial Open Space Including Footprints</b> 	16 acre site: partially developed Open Space: large area including footprints Tower footprints: undeveloped Off-site development: variable					
			15 FAR=3,933,000 21 FAR=5,506,200 38 FAR=10,000,000	15 FAR=8,689,500 21 FAR=12,165,300 17 FAR=10,000,000	15 FAR=7,832,250 21 FAR=10,985,150 19 FAR=10,000,000		
3	<b>Small Open Space Engaging Footprints</b> 	16 acre site: mostly developed Open space: relating to tower footprints Tower footprints: undeveloped Off-site development: variable					
			15 FAR=9,171,750 21 FAR=12,840,450 18 FAR=10,000,000	15 FAR=10,725,000 21 FAR=15,015,000 14 FAR=10,000,000	15 FAR=10,148,250 21 FAR=14,207,550 14.5 FAR=10,000,000	15 FAR=8,384,750 21 FAR=8,938,650 24 FAR=10,000,000	
4	<b>Buildings on Footprints</b> 	16 acre site: partially developed Open space: not including tower footprints Tower footprints: developed as towers or memorial structures Off-site development: minimal					
			15 FAR=6,021,000 21 FAR=8,429,400 25 FAR=10,000,000	15 FAR=9,170,550 21 FAR=12,838,770 16 FAR=10,000,000	15 FAR=8,689,500 21 FAR=12,165,300 17 FAR=10,000,000		
5	<b>Open Space Unrelated to Footprints</b> 	16 acre site: partially to fully developed Open space: no relationship to tower footprints Tower footprints: no influence on development Off-site development: minimal					
			15 FAR=6,479,250 21 FAR=9,079,950 23 FAR=10,000,000	15 FAR=7,666,500 21 FAR=10,733,100 20 FAR=10,000,000	15 FAR=6,604,750 21 FAR=12,846,650 17 FAR=10,000,000	15 FAR=6,763,750 21 FAR=9,497,250 22 FAR=10,000,000	15 FAR=6,687,750 21 FAR=9,382,850 22 FAR=10,000,000

**BULK STUDY OF VARIATION 2B**



View from north

The World Trade Center site is divided by a new street system and developed with a balanced split between open space and significant new building development. Depending upon building height and coverage it is possible to recreate most of the original World Trade Center density.

Open space could include the two tower footprints. Many configurations answer this alternative's land-use pattern whether "L" shaped, "U" shaped, "Donut" shaped or checkerboard land-use patterns.

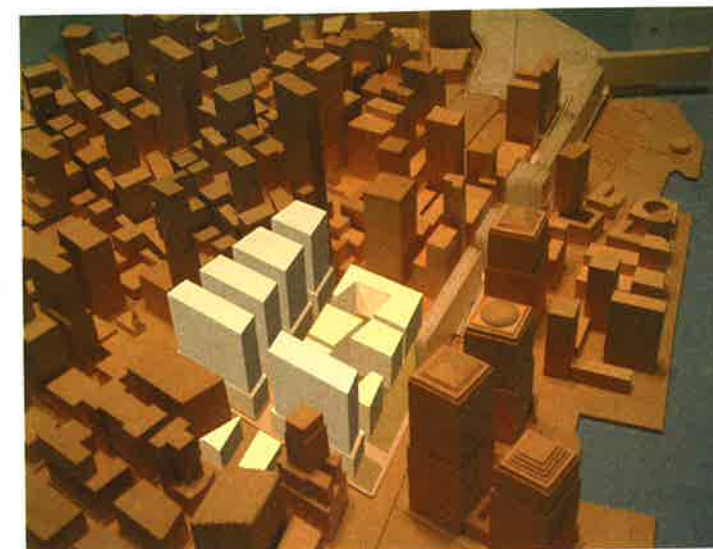


- 1 40 Story Building
- 2 40 Story Building
- 3 40 Story Building
- 4 40 Story Building
- 5 40 Story Building
- 6 Memorial/Open Space

40 Story Building



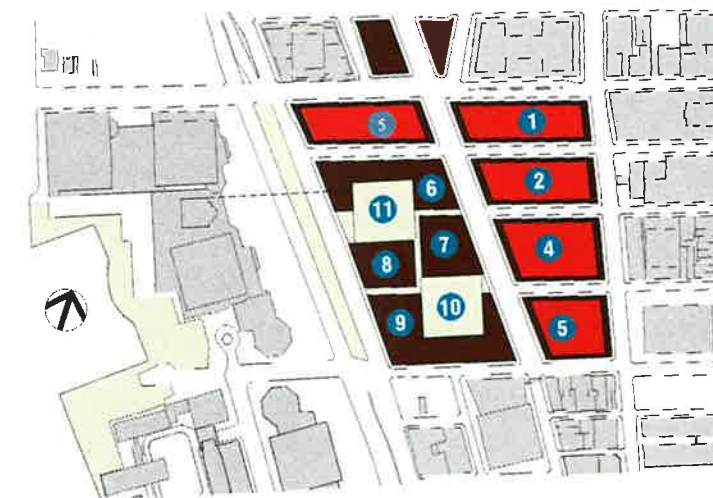
**BULK STUDY OF VARIATION 3A**



View from north

Land use is devoted principally to new building coverage with the exception of the footprints of the two towers, which are reserved for memorial use. Any combination of street penetrations is possible, dividing the site into reasonably sized development parcels.

West Street could become the base for a major open space on a deck or also be developed as building sites above the lowered roadway.



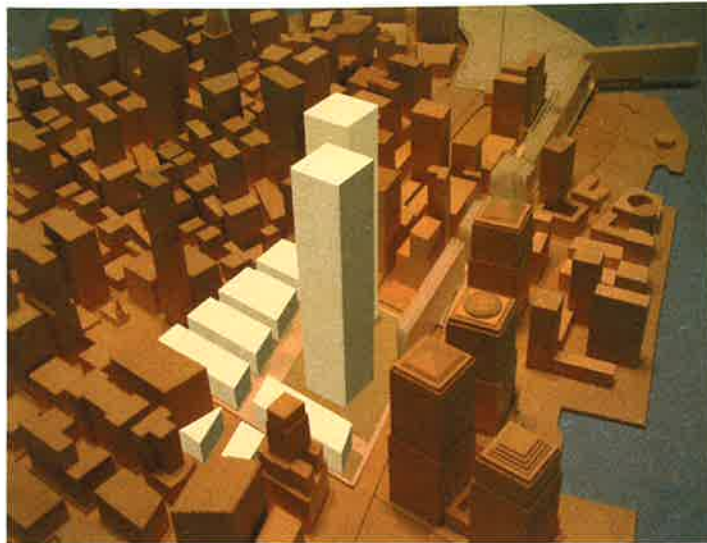
- 1 35 Story Building
- 2 35 Story Building
- 3 35 Story Building
- 4 35 Story Building
- 5 35 Story Building
- 6 10 Story Building
- 7 10 Story Building
- 8 10 Story Building
- 9 10 Story Building
- 10 Memorial/Open Space
- 11 Memorial/Open Space

35 Story Buildings





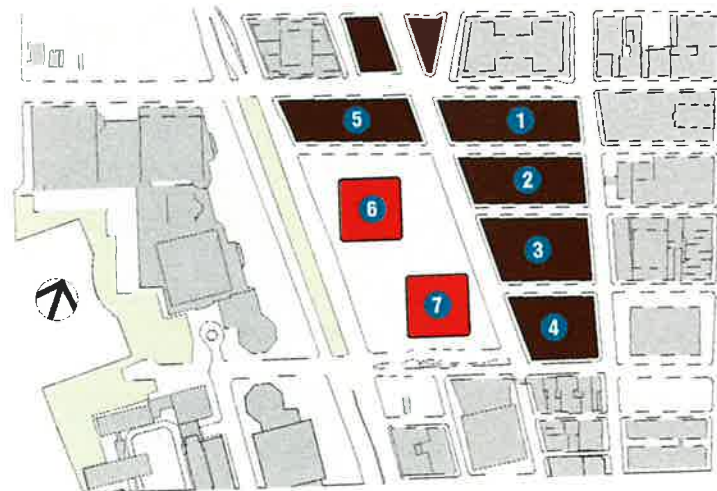
**BULK STUDY OF VARIATION 4C**



View from north

The entire site is rezoned for development use with the expectation that any memorial utilizing the two tower footprints will be integrated with the possible building design above.

West Street options are as shown in Variation 3A.



- 1 10 Story Building
- 2 10 Story Building
- 3 10 Story Building
- 4 10 Story Building
- 5 10 Story Building
- 6 80 Story Memorial Tower
- 7 80 Story Memorial Tower



**BULK STUDY OF VARIATION 5C**



View from north

The entire site is developed for commercial/housing/cultural multi-use development. The memorial is located either off site or over West Street, or expressed without reliance upon the two lower footprints.

The entire complex could be interpreted as a memorial configuration.



- 1 12 Story Building
- 2 12 Story Building
- 3 12 Story Building
- 4 12 Story Building
- 5 12 Story Building
- 6 12 Story Building
- 7 72 Story Memorial Tower
- 8 12 Story Building
- 9 12 Story Building
- 10 Memorial/Open Space

