

Preliminary Proposal for the Memorial at the NYC Site of the

World Trade Center

Concepts and Designs for the World Trade Center /
September 11 Memorial at the New York WTC Site

Revision A



Proposed (via reference that may be made to document URL)
to WTC-cognizant officials of New York and New Jersey, and to the
Lower Manhattan Development Corporation et al

by

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WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL

DEDICATIONS AND RECITALS

In memory of the thousands of innocent victims who were murdered by the horrific terrorist attacks of September 11, 2001...

May their lives be remembered and the deeds of those who risked and even lost their lives to save others be recognized.

May we never forget the danger posed by ideologies that reject the concept of civilization, a danger that was demonstrated to the whole world on September 11, 2001.

May the memory of the names of all September 11 terrorists, and the ideologies that motivated them, be forever wiped from the face of the earth.

CONCEPT OF THE PROPOSED MEMORIAL

This memorial provides a respectful remembrance of the many precious lives that were lived and lost at the World Trade Center, the Pentagon, and in Pennsylvania on September 11, 2001, and at the WTC in 1993. The memorial also provides a record of the World Trade Center site as it was before, during, and after September 11, 2001, and uniquely recognizes the endurance of those who survived and courage of those who risked and even lost their lives to save others. Major parts of the memorial are designed to be seen from areas both inside and outside the WTC memorial site, including from near the eastern entrance to the WFC Winter Garden. However, in deference to comments made at the 28 May 2003 LMDC public perspectives forum about the memorial, the largest and most poignant elements of the memorial are only visible from inside the largest memorial structure. The memorial is designed to provide equal and unhindered access for handicapped and fully mobile people alike. It is based on the premise that major elements of a fitting memorial should be accessible to the public at all times.

The memorial shown and described here is designed to be implemented in association with the elements of the overall WTC site that were proposed by Studio Daniel Libeskind and selected by the LMDC. If the overall site plan is changed, it may become appropriate to modify some aspects of this proposed memorial.

REMARKS ABOUT THE PROPOSED MEMORIAL

It was originally anticipated that this memorial design would be formally submitted as an entry in the LMDC World Trade Center Memorial Competition. (The author registered for the competition and the registration number would have been 634660.) However, having only first learned of the memorial competition in May (less than 2 months before the submission deadline), it was not possible (in addition to working a day job) to generate a complete submission by the deadline. Communications to the LMDC, to see if the deadline could be extended for all registrants (since only about 40 percent made submissions by the deadline), brought no response. Therefore, the memorial design was not submitted and is instead being published. This will make it available for evaluation by the LMDC and the public, even though it is not a formal part of the competition. (Therefore, intellectual property rights are not being transferred to the LMDC, though it is anticipated that use of the design, if the LMDC is interested, will be allowed if proper credit is indicated.) Additional work on the design (including addressing details usually would not be addressed in a phase 1 submission) has been performed for this publication.

WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL

ILLUSTRATION OF THE PROPOSED MEMORIAL, VIEW FROM NORTHWEST



PROPOSED WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL. ALL ELEMENTS IN MEMORIAL BOUNDARY (EXCEPT SPHERICAL SCULPTURE AND SURROUNDING 2002 MEMORIAL RING) ARE COPYRIGHT 6/2003 JEFFREY R. CHARLES. ALL RIGHTS RESERVED. (WOULD HAVE BEEN WTC M.C. REG. 634660)

WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL

SITE PLAN OF PROPOSED MEMORIAL, WITH REFERENCE NUMBERS AND DESCRIPTIONS

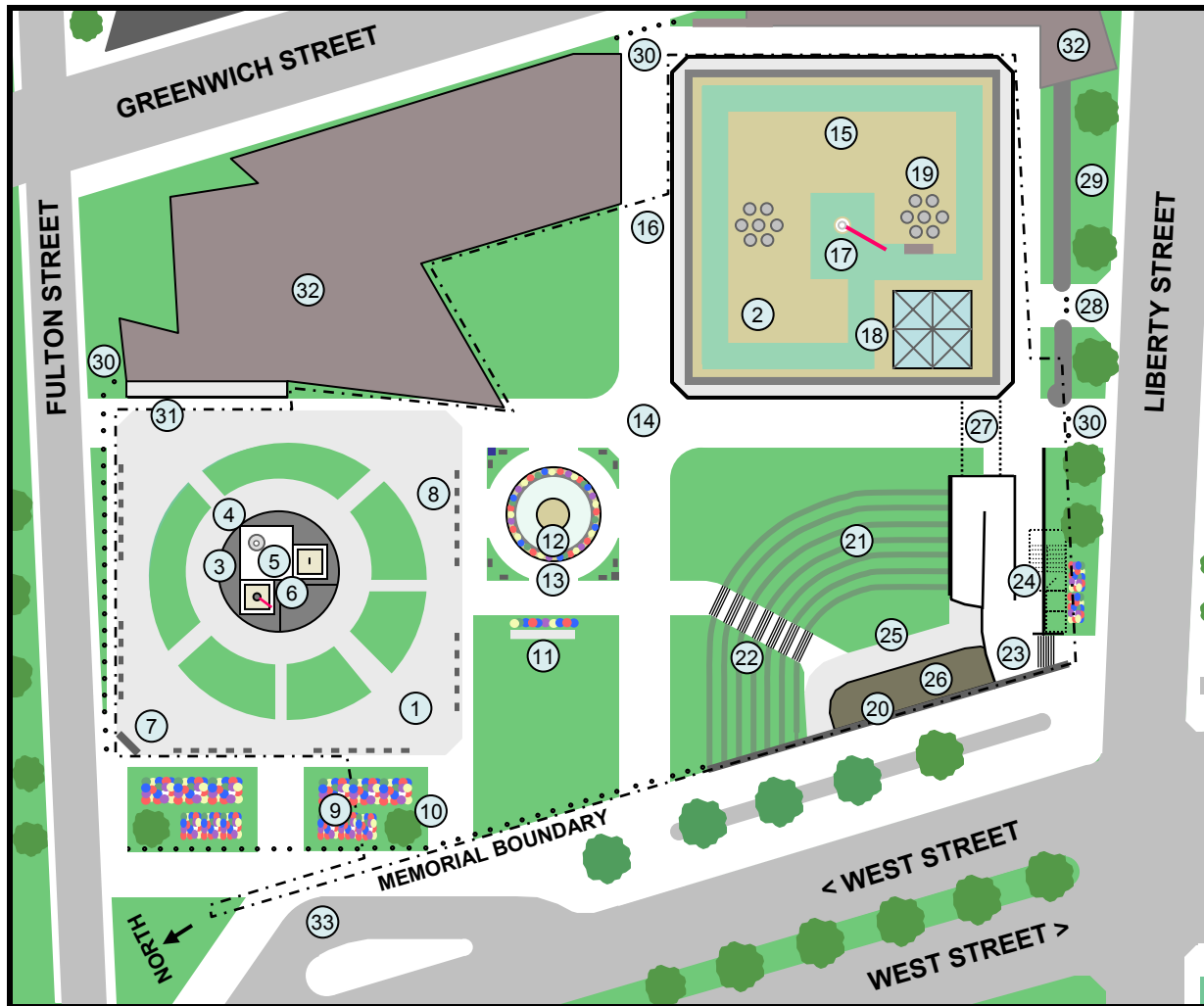
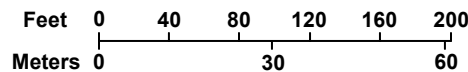


Figure 2



LEGEND:

- ① Tower 1 Footprint (approx. on grade)
- ② Tower 2 Footprint
- ③ Wide Pedestal with Victim Names
- ④ Fountain and Eternal Flame
- ⑤ Tomb of Unidentified Victims
- ⑥ 1/10 Scale Replica of WTC Towers
- ⑦ Original Corner of Tower 1 (24' high)
- ⑧ Benches at Tower Footprint Edge
- ⑨ Flower Bed
- ⑩ Memorial Trees (for Tower 1 & 2 victims)
- ⑪ Memorial Identification Sign
- ⑫ Fountain and WTC Spherical Sculpture
- ⑬ Memorial Ring from Sept. 11, 2002
- ⑭ Sidewalk
- ⑮ Memorial Building with Rebuilt Lobby
- ⑯ Main Entrance to Memorial Building
- ⑰ Flag Pole (110', for 30' Flag)
- ⑱ Skylight (over original tower structure)
- ⑲ Light Arrays for Memorial In Lights
- ⑳ Exposed Slurry Wall
- ㉑ Terraced Ground Around Slurry Wall
- ㉒ Stairs to Slurry Wall Viewing Area
- ㉓ Ramp and Slurry Wall Viewing Platform
- ㉔ Elevators and Stairs to Slurry Wall
- ㉕ Wall Viewing Area (24-30' below grade)
- ㉖ Bedrock Slurry Wall Viewing Area
- ㉗ Underground Concourse to Building
- ㉘ Loading Area with Removable Barriers
- ㉙ Decorative Blast Wall (for ground attack)
- ㉚ Vehicle Barriers (4.5' high, 10" dia.)
- ㉛ Waterfall (moved from original location)
- ㉜ Museum (Libeskind design, with parts over tower footprints removed)
- ㉝ Pullout from West Street (optional)

WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL

SITE PLAN OF THE PROPOSED MEMORIAL, WITHOUT REFERENCE NUMERALS

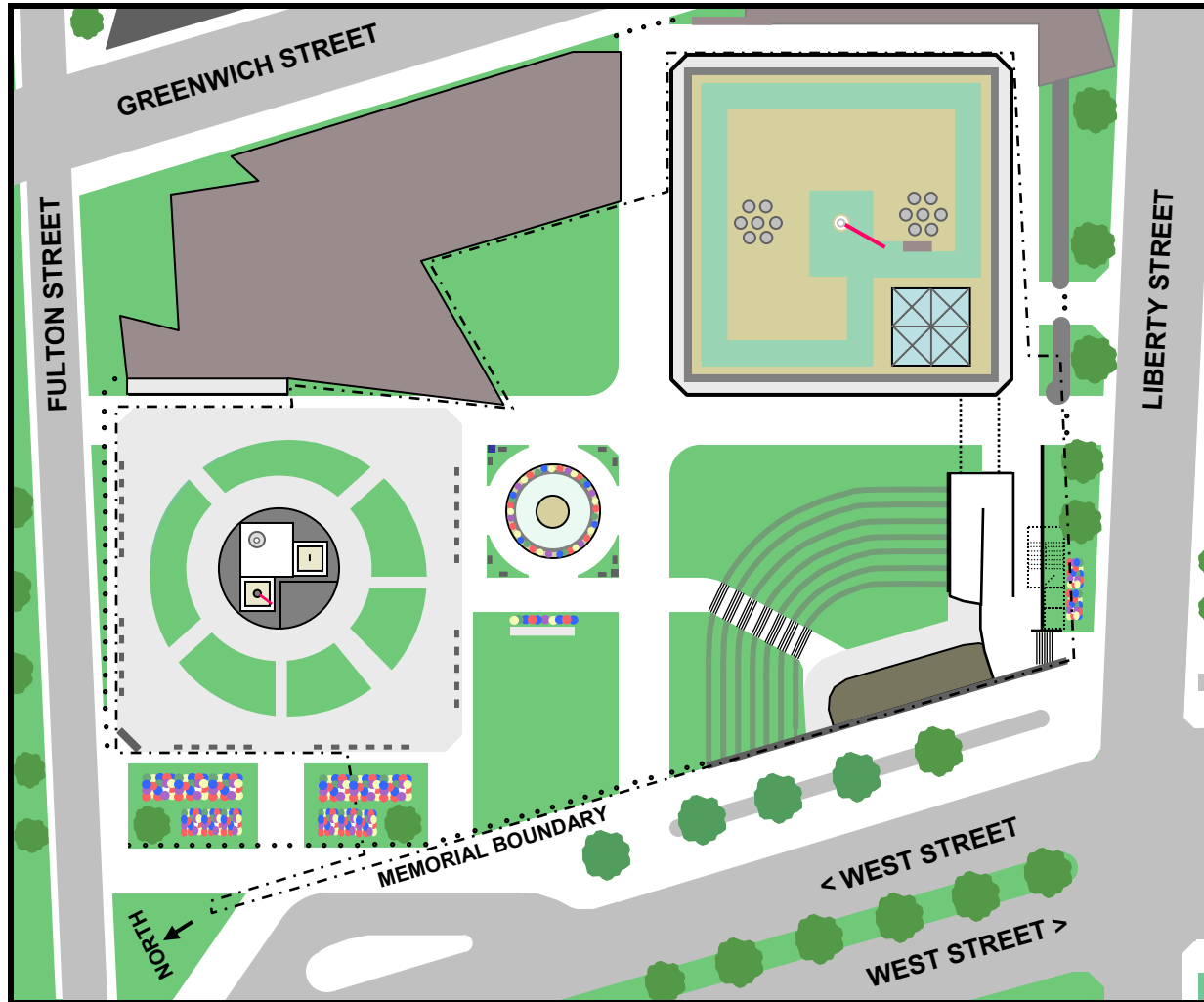
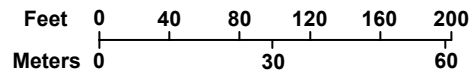


Figure 3



WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL

ILLUSTRATION OF THE PROPOSED MEMORIAL, ELEVATION VIEWS

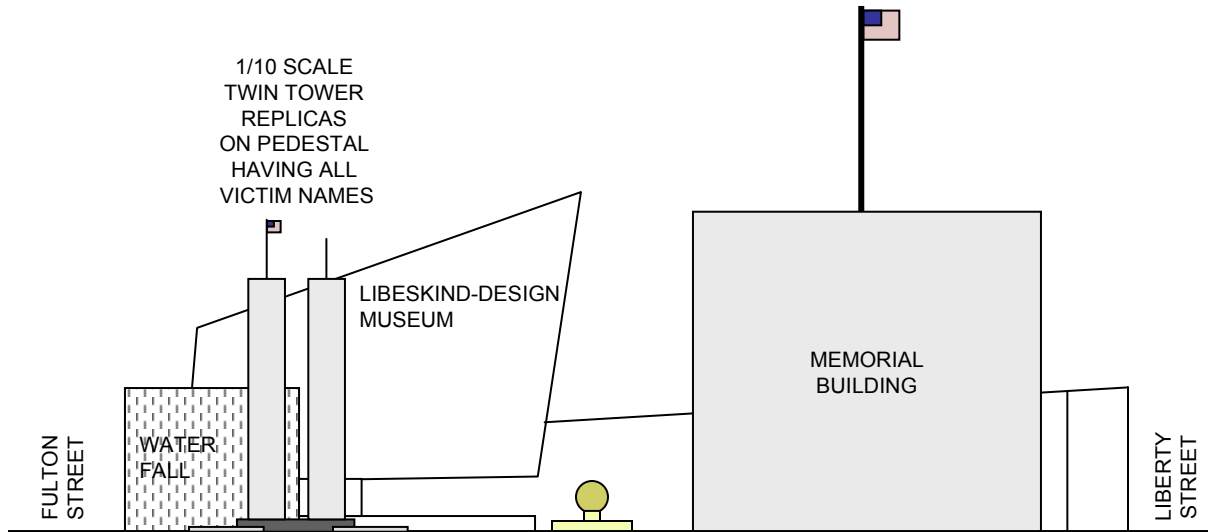


Figure 4. Elevation view, from northwest side.
(Shown without most of the site vegetation.)

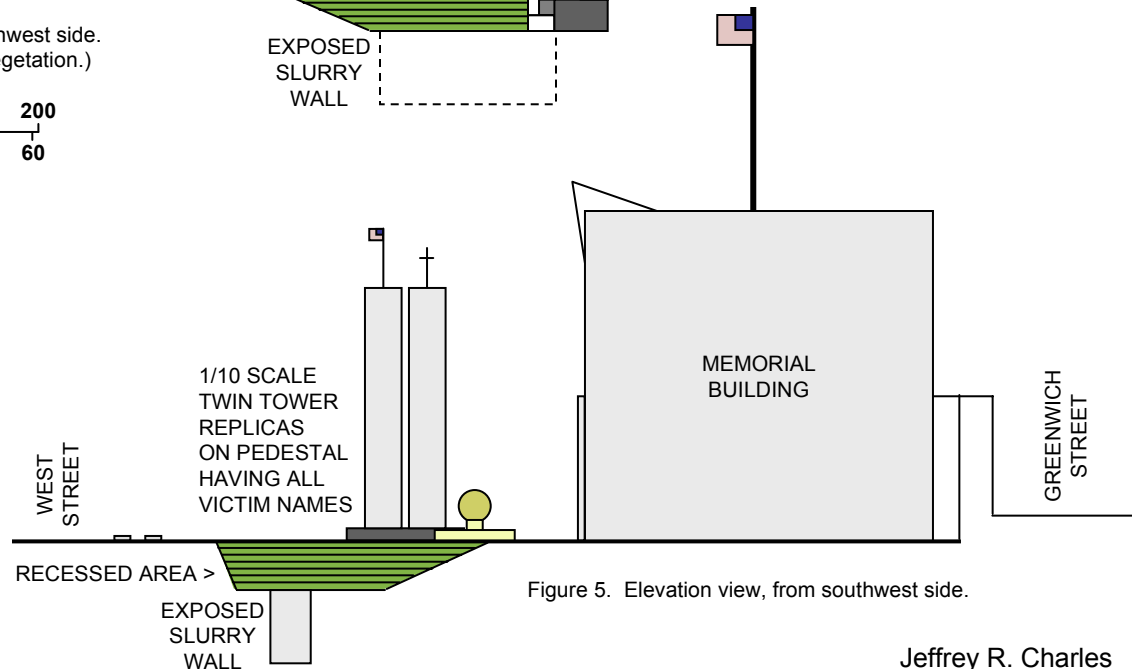
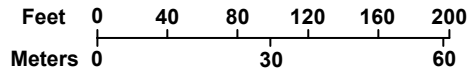


Figure 5. Elevation view, from southwest side.

Basic structure and mobility elements for first floor and mezzanine level of memorial building

East lobby area is similar to lobby of an original WTC tower. Design assumes part of elevator layout is similar to that of original towers 1 and 2 WTC, except fewer elevators are in memorial building. Proposed design has greater separation between stairwells than original WTC, and some structural enhancements. Elements to be included that are not illustrated here include the recovered U.S. flag, the metal cross made from WTC debris, and sculptures, etc., from debris.

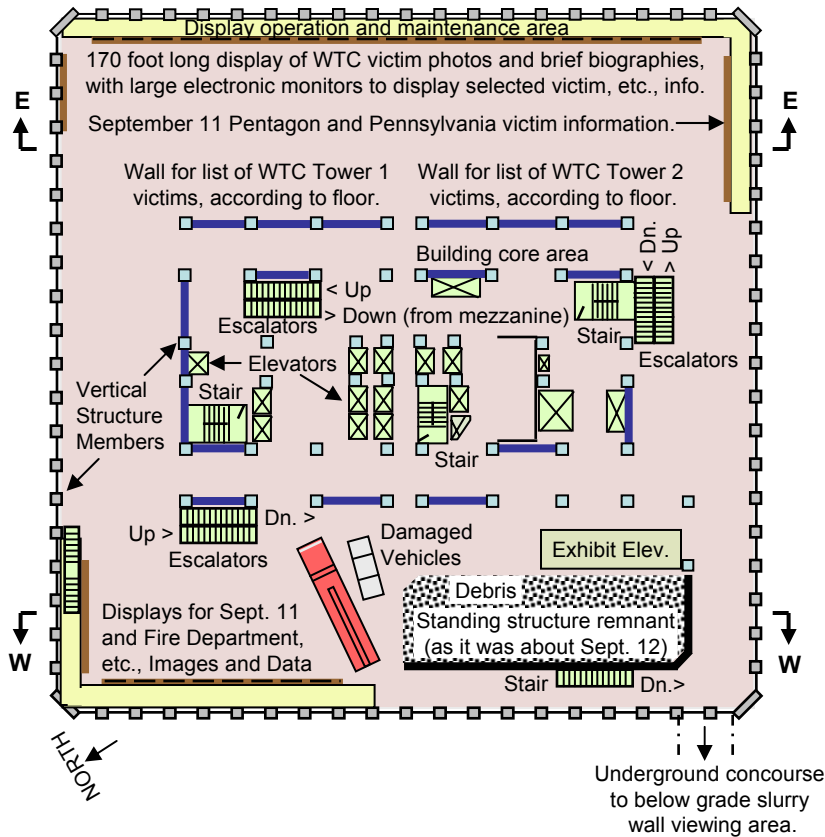


Figure 6

Basic Floor Plan of Memorial Building, First Floor
(Lower levels include more damaged vehicles and tall steel foundation column that was removed near end of WTC site recovery efforts.)

Large stained glass windows having illustrations of U.S. flag, WTC, representations of some WTC victim professions and religions, New York firemen, and police and FDNY logos, etc.

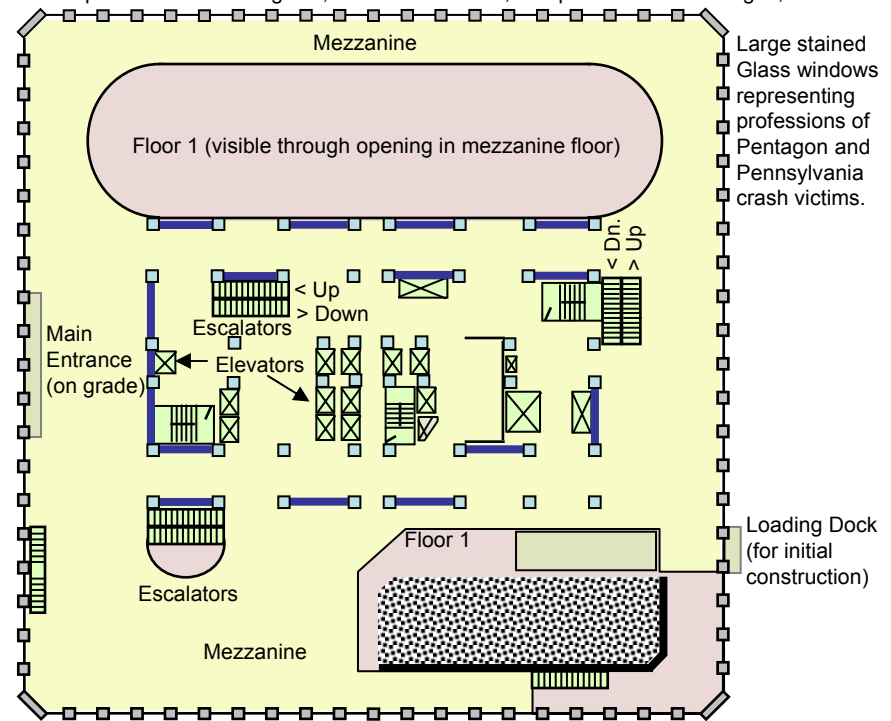


Figure 7

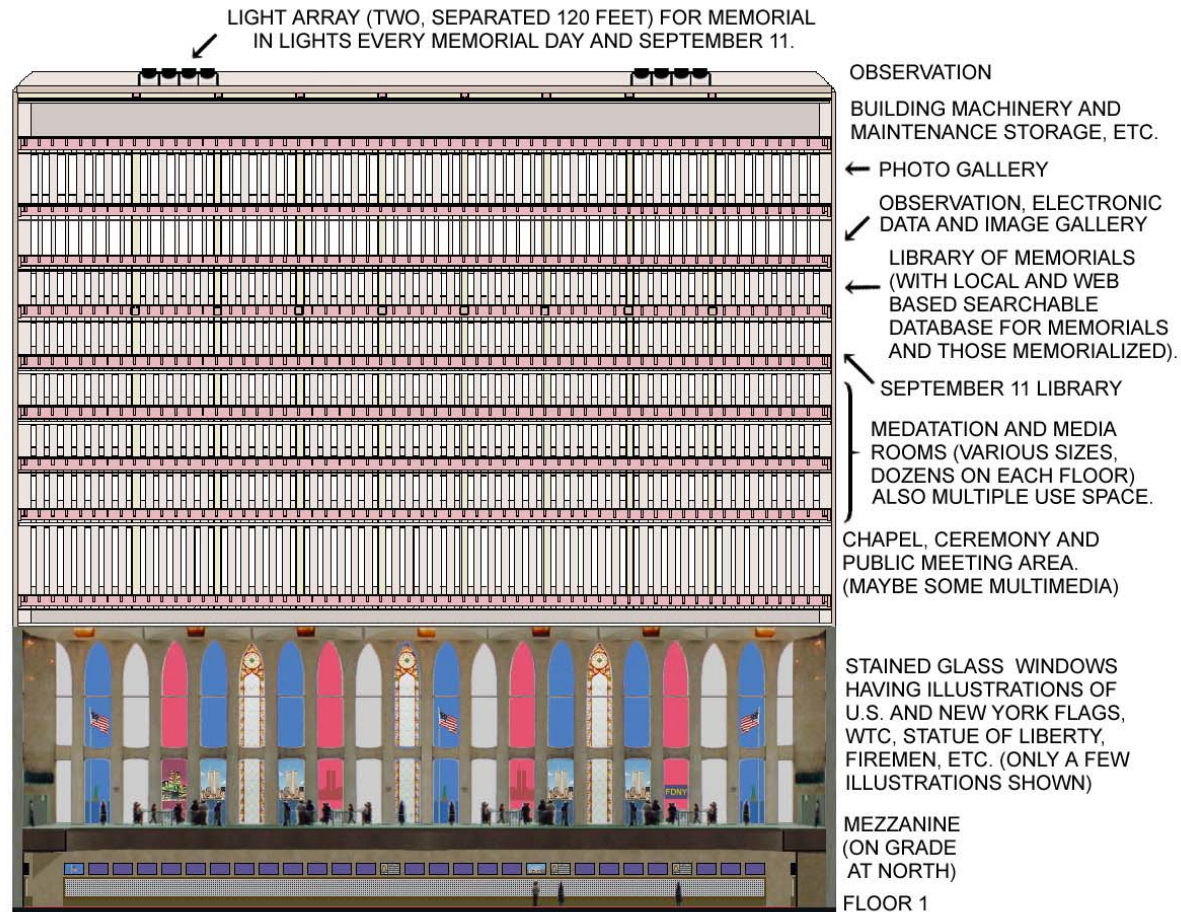
Floor Plan of Memorial Building, Mezzanine Level

Large stained glass windows showing New York skyline before and after September 11, infamous moments of September 11 attack, and firemen raising U.S. flag after it was found in WTC debris.

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ILLUSTRATION OF THE PROPOSED MEMORIAL, EAST INTERIOR OF MEMORIAL BUILDING

(Cross section, taken along line E - E of Figure 6)



WTC MEMORIAL. TOWER 2 FOOTPRINT BUILDING, CROSS-SECTION OF EAST SIDE, INTERIOR.

INCLUDES LOBBY SIMILAR TO THAT OF ORIGINAL WTC. FLOOR 1 HAS 170 FOOT LONG DISPLAY HAVING ONE 4 X 7 INCH PRINT WITH A PHOTO AND BRIEF BIOGRAPHY OF EACH WTC VICTIM.

ABOVE THE DISPLAY ARE SEVERAL LARGE WIDE SCREEN ELECTRONIC MONITORS THAT INDEPENDENTLY DISPLAY INFORMATION ABOUT SELECTED VICTIMS OR SUBJECTS. PART OF SOUTH WALL HAS SAME FOR VICTIMS OF PENTAGON AND PENNSYLVANIA CRASH. (LEVELS BELOW FLOOR 1 NOT SHOWN.)

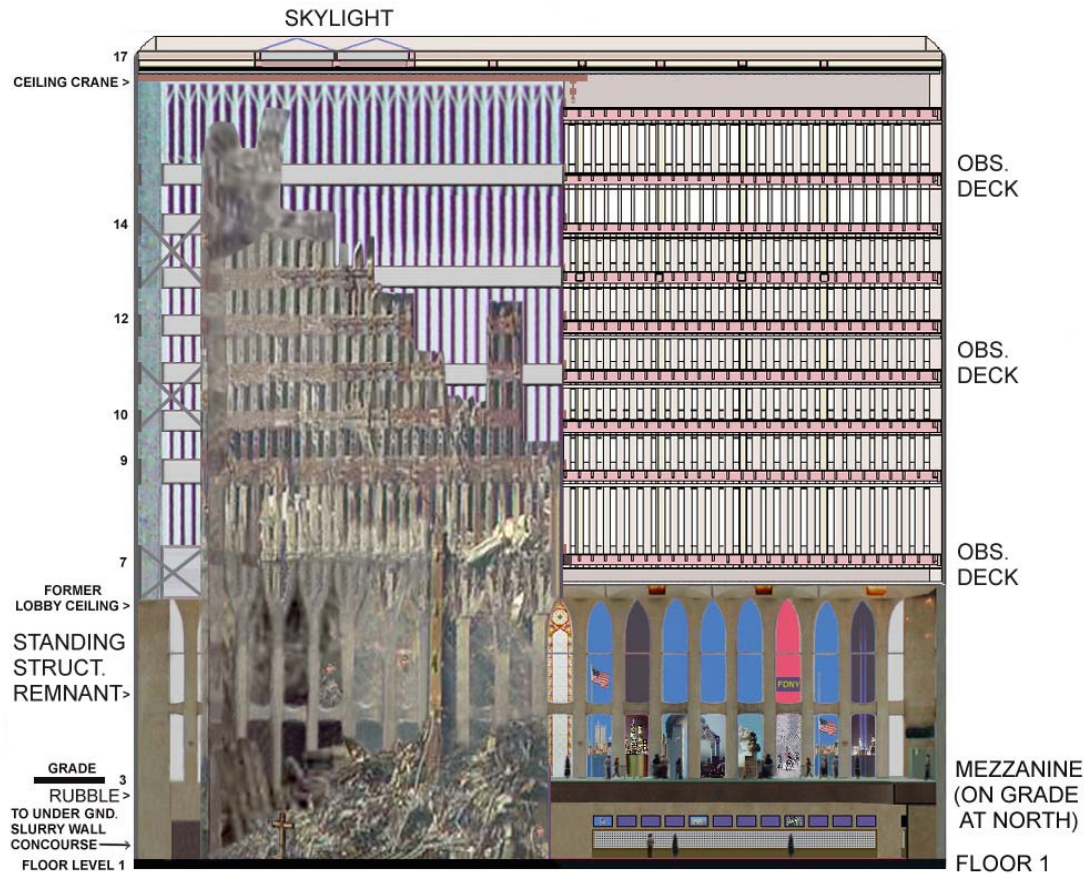
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Figure 8. Only some of the many stained glass window designs illustrated. In reality, the same design would be used on only one or two windows. Actual designs for window art could be the subject of a separate competition.

WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL

ILLUSTRATION OF THE PROPOSED MEMORIAL, WEST INTERIOR OF MEMORIAL BUILDING

(Cross section, taken along line W - W of Figure 6)



WTC MEMORIAL. TOWER 2 FOOTPRINT BUILDING, CROSS-SECTION OF WEST SIDE, INTERIOR. ENCLOSES SUBSTANTIAL PART OF TOWER 2 STANDING STRUCTURAL REMNANT AND SOME RUBBLE. DAMAGED VEHICLES, ETC., DISPLAYED AT LOWER LEVELS AND IN CORE. STRUCTURAL REMNANT IS ABOUT 18 FEET INSIDE PERIMETER. IF ORIGINAL REMNANTS ARE NOT AVAILABLE, DISPLAY CAN BE MADE AS CUSTOM FINISHED PART OF BUILDING STRUCTURE. BUILDING EXTERIOR HAS FOOTPRINT OF AND LOOKS LIKE ORIGINAL WTC TOWER (EXCEPT FOR HEIGHT). EAST SIDE OF INTERIOR IS AS BEFORE SEPTEMBER 11, 2001. WEST CORNER IS LIKE AFTER.

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Figure 9

WORLD TRADE CENTER / SEPTEMBER 11 MEMORIAL

How this Proposed Memorial Fulfills and Embodies the Goals and Spirit of the Mission Statement for the WTC Site

- TO REMEMBER AND HONOR THE THOUSANDS OF INNOCENT MEN, WOMEN, AND CHILDREN MURDERED BY TERRORISTS IN THE HORRIFIC ATTACKS OF FEBRUARY 26, 1993 AND SEPTEMBER 11, 2001:
 - Names of victims are inscribed on a 60 foot diameter pedestal in the center of the Tower 1 footprint
 - Unidentified remains of victims are buried under the pedestal, which serves as the grave marker
 - On top of the pedestal are 1/10 scale detailed and internally illuminated models of Towers 1 and 2
- TO RESPECT THIS PLACE MADE SACRED THROUGH TRAGIC LOSS:
 - Nothing except the memorial and September 11 or WTC-specific items occupy either tower footprint
- TO RECOGNIZE THE ENDURANCE OF THOSE WHO SURVIVED, THE COURAGE OF THOSE WHO RISKED THEIR LIVES TO SAVE OTHERS, AND THE COMPASSION OF ALL WHO SUPPORTED US (VICTIM'S FAMILIES, NEW YORKERS, AND THE UNITED STATES) IN OUR DARKEST HOURS:
 - Printed and electronic displays in memorial building on tower 2 footprint include details about victims
 - Electronic resources in memorial building display individuals or groups of victims by visitor-definable criteria (e.g. name, profession, employer, tower and floor, etc.), as well as those who gave support.
 - Some stained glass windows in memorial building depict emergency workers
- MAY THE LIVES REMEMBERED, THE DEEDS RECOGNIZED, AND THE SPIRIT REAWAKENED BE ETERNAL BEACONS, WHICH REAFFIRM RESPECT FOR LIFE, STRENGTHEN OUR RESOLVE TO PRESERVE FREEDOM, AND INSPIRE AN END TO HATRED, IGNORANCE AND INTOLERANCE.
 - 170 foot wall of photos and short biographies shows the human loss is far more than mere numbers
 - Media rooms in the building and related Internet resources display WTC and Sept. 11 information
 - Library of Memorials honors victims though providing a searchable database for other memorials
 - That which inspires an end to hatred, etc., will evolve, as can the memorial's electronic resources. However, there must always be intolerance for acts of terrorism such as those of Sept.11, 2001

How this Proposed Memorial Fulfills the Program Guiding Principles for the WTC Site – part 1

- TO CONVEY THE MAGNITUDE OF PERSONAL AND PHYSICAL LOSS AT THIS LOCATION:
 - 170 foot long wall of photos and short biographies of all victims in a single large area (the memorial building lobby) shows the magnitude of human loss. Reading all of the one or two paragraph bios is more than most can accomplish in a day, showing the human loss is much more than just a number.
 - Memorial building shows what WTC was like both before and just after September 11, 2001.
 - Lower floors of east side are full size reconstruction of corresponding part of the Tower 2 lobby
 - West side encloses part of 200 foot tall structure that remained after the September 11 collapse
 - Slurry wall is visible from grade, from 24 to 30 feet below grade, and at bedrock level.
- TO ACKNOWLEDGE ALL THOSE WHO AIDED IN RESCUE, RECOVERY AND HEALING:
 - Some stained glass windows in memorial building on Tower 2 footprint depict emergency workers
 - Library in memorial building includes details about victims including emergency workers
 - North corner of memorial building shows lost emergency workers, according to areas of service
 - Memorial will assist healing, providing pictures of victims, representations of the twin towers, and a Library of Memorials with information about where people are memorialized at various memorials
- TO RESPECT AND ENHANCE THE SACRED QUALITY OF THE OVERALL SITE AND THE SPACE DESIGNATED FOR THE MEMORIAL:
 - No non-memorial structures occupy or overhang any part of either WTC tower footprint.
 - No commercial activity is conducted within memorial boundary, with possible exception of a few snack and water or soda machines under switchback ramp to the southern part of slurry wall.
- TO ENCOURAGE REFLECTION AND CONTEMPLATION:
 - Site encourages reflection, and memorial building provides a quiet place for reflection.
 - Meditation and media rooms in memorial building provide for even more private reflection.
 - Large recessed area around exposed part of slurry wall provides some isolation from rest of site.

How this Proposed Memorial Fulfills the Program Guiding Principles for the WTC Site – part 2

- TO EVOKE THE HISTORICAL SIGNIFICANCE AND WORLDWIDE IMPACT OF SEPTEMBER 11, 2001:
 - Memorial's many resources reveal severity of Sept. 11 attacks and how the world has changed.
 - September 11 and WTC library resources archive history of site, including September 11 attacks.
 - Galleries, media, and web resources show how September 11 attacks were viewed world wide.
- TO CREATE AN ORIGINAL & POWERFUL STATEMENT OF ENDURING & UNIVERSAL SYMBOLISM:
 - Capturing at least some of the look and feel of the original WTC preserves some of its symbolism.
 - Memorial building having footprint and general appearance of lower and upper parts of original WTC tower provides enclosure for memorial elements that would otherwise excessively weather over time.
 - Stained glass windows in west part of memorial building show events of September 11, including the infamous moment when terrorists deliberately flew a plane full of people into Tower 2. This event, which was broadcast live, changed the world because it was the moment everyone knew the WTC collisions were not accidental, but were instead deliberate attacks against innocent civilians.
 - Standing remnants the WTC preserve the sight seen throughout the world just after September 11.
 - Prominent display of the original WTC's spherical sculpture in its damaged condition shows how an original work of art was further sculpted by tragedy.
- TO INSPIRE AND ENGAGE PEOPLE TO LEARN MORE ABOUT THE EVENTS AND IMPACT OF SEPTEMBER 11, 2001 AND FEBRUARY 26, 1993:
 - The memorial will not only inspire, but its libraries and electronic resources will enable learning.
 - Display of photos and short bios of all victims in a single large area (memorial building lobby) show the magnitude of the loss of life.
 - Visible footprints of towers and standing remnants of at least one tower and a sample of the debris field show the magnitude of physical destruction.
- TO EVOLVE OVER TIME:
 - Electronic resources in the memorial and on the Internet can easily evolve and be expanded.

How this Proposed Memorial Addresses Program Elements for the WTC Site – part 1

- TO RECOGNIZE EACH INDIVIDUAL WHO WAS A VICTIM OF THE ATTACKS:
 - Names of all victims are inscribed on the granite pedestal in the Tower 1 footprint and under 1/10 scale replicas of the twin towers.
 - Pictures and brief biographies of all victims are on the southeast, south wall of memorial building.
 - Victims of the September 11, 2001 attacks in New York are memorialized in a 170 foot long display on the southeast wall of floor 1 in the memorial building on the Tower 2 footprint.
 - Victims of the 1993 terrorist bombing of the World Trade Center are at the left of this display.
 - Victims of the September 11, 2001 attacks in Virginia and Pennsylvania are shown in matching displays on the south side of the southwest wall of floor 1 in the memorial building.
 - In north corner, lost emergency workers are shown again, but according to areas of service.
 - Names of all victims of 1993 and September 11, 2001 WTC attacks (including victims on the aircraft, but not the terrorists) are displayed (according to the tower and floor they were on when the towers collapsed) in a list on the southeast side of the core on the Floor 1 level of the Memorial building.
 - More detailed information about all victims is available in libraries and electronic resources in the memorial building (including right over the displayed photos and biographies) and on the Internet.

- TO PROVIDE SPACE FOR CONTEMPLATION:
 - Quiet visitation and contemplation: Display of victim photos and brief biographies on wall under Memorial Building mezzanine provides some degree of privacy and an area for quiet visitation.
 - Open areas of the site and in the memorial building provide additional places for reflection.
 - Meditation rooms in memorial building and the terraced, grassy area near slurry wall provide area for more private visitation and contemplation. Building provides more quiet than open outdoor areas.
 - An area for families and loved ones of victims: Certain meditation rooms in the memorial building are dedicated to (reserved for) the families and loved ones of victims
 - Separate accessible space to serve as a final resting-place for the unidentified remains from the World Trade Center site: The final resting-place is under a 60 foot diameter pedestal bearing the names of victims. This central to the memorial, because all of America lost something on Sept. 11.

How this Proposed Memorial Addresses Program Elements for the WTC Site – part 2

- TO CREATE A UNIQUE AND POWERFUL SETTING THAT WILL:
 - Be distinct from other memorial structures like a museum or visitor center:
 - The granite pedestal bearing the names of the victims and the replicas of the twin towers that rest on the pedestal are distinct from other memorial structures like a museum or visitor center
 - Make visible the footprints of the original World Trade Center towers
 - The footprint of Tower 1 is defined by a paved area that surrounds the granite pedestal with the victim's names inscribed. Benches having footprint of WTC tower structure also define area.
 - The footprint of Tower 2 is defined by the memorial building that surrounds a large standing structural remnant of the original tower. (This building could be outside the footprint if it replaced the museum that is currently shown just outside east boundary of the memorial area.)
 - Include appropriate transitions or approaches to, or within, the memorial
 - Most of site is shown on-grade, where it can be approached and accessed from at least seven street level locations, plus from underground and available approaches on developed east side.
 - Scale replicas of twin towers and memorial building are visible from on and off memorial site.
 - Approach to eternal flame slopes upward slightly and provides place near flame for mementos.
- TO CONVEY HISTORIC AUTHENTICITY
 - Scale replicas of the twin towers, the WTC-like memorial building, and displays and libraries in memorial building show what WTC site was like before Sept. 11, and even before the WTC existed.
 - Libraries, displays, and electronic resources show what happened before, during and after Sept. 11.
 - Memorial building encloses the poignant original standing remnants of the original tower structure
 - About 200 feet of the slurry wall is visible to preserve existing conditions of the World Trade Center site, but the emphasis is to capture the look and feel of the twin towers before Sept. 11. This will be more healing, yet show some of what was lost. The original spherical sculpture from the WTC is displayed in its current condition, inside memorial ring that was used one year after Sept. 11 attacks.
 - The open outdoor spaces, the stadium-like terracing of ground around the slurry wall, the large memorial building lobby, and the meeting places on the floor immediately above the lobby, provide a variety of places for public ceremonies regardless of local weather conditions.

MAJOR ELEMENTS OF THE PROPOSED MEMORIAL – part 1 of 3

Major elements of this memorial define the footprints of original towers 1 and 2 World Trade Center. Almost the entire area inside the Tower 1 footprint is paved, and the entire footprint of tower 2 is occupied by a memorial structure. The center of the Tower 1 footprint is occupied by a 140 foot tall memorial under which unidentified remains of the September 11 victims are interred. Most of the memorial grounds outside the tower footprints are covered with grass, with the exception of several walkways and the support and viewing areas around the southern part of the west slurry wall. The memorial also has permanent fixtures for semi-annual (or other times officials deem appropriate) projection of twin columns of light into the sky.

The footprint of Tower 1 is mostly paved and is defined by a change in the color of the pavement that separates it from an approximately 7 foot wide sidewalk that surrounds its perimeter. A series of 18 inch high benches that each occupy footprints of some lower vertical members in the outer supporting structure of the original Tower 1 also define the footprint. The benches each have stone tops, with the sides being metal that has the same finish as the original lower WTC tower structure. The north corner of the tower 1 footprint has a two story high section of structure from a corner of Tower 1. In the center of the Tower 1 footprint are detailed and internally illuminated 1/10 scale replicas of the former towers 1 and 2 WTC. At night, internal lighting of the tower replicas permits them look as the original twin towers did at night, but the lighting can also be controlled to provide text or monochrome and color images, with each window opening representing at least one pixel. When appropriate, the lights in each tower replica can also indicate the area of each aircraft impact. The top of the tower 1 replica has a flag pole resembling a scale antenna mast of Tower 1, from which an American flag of about 15 foot length is flown. The inside of each tower replica is large enough to facilitate maintenance and (in the Tower 1 replica) access to the top flag pole.

The scale tower replicas inside the footprint of Tower 1 reside on top of a wide, flat, circular pedestal that is made of concrete and dark granite. The top of this pedestal is between 4.8 and 5.5 feet above the surrounding ground. The pedestal occupies the area under the tower replicas, plus a scale space toward the east that is equivalent to the central plaza of the original World Trade Center. An eternal flame to the victims of September 11 2001 is slightly off center in the scale plaza area, and resides inside a scale and working representation of the former plaza's circular fountain, with the flame being in the place that corresponds to the original location of the large spherical bronze sculpture. A small part of the surrounding ground slopes up slightly to be about 2 feet higher at the point nearest the flame in order to provide better visibility and make it easier for people to leave and view mementos. Mementos can also be left under the victim names that are on the sides of the circular pedestal.

MAJOR ELEMENTS OF THE PROPOSED MEMORIAL – part 2 of 3

The vertical perimeter of the north, east, and south sides of the large flat pedestal is inscribed with the names of all WTC and September 11 victims. The names of victims for whom no identifiable remains were found are shown in gold letters. The unidentified remains from the world trade center site (and if applicable, other September 11 sites) are interred under this memorial structure. The western side of the pedestal has a notch that permits visitors to walk right up to the foot of the tower replicas.

The recovered original bronze sculpture from the central plaza of the WTC resides several dozen yards to the southeast of this memorial, and is surrounded by a fountain and the circular memorial used on the first year anniversary of the September 11 attacks.

The footprint of Tower 2 is occupied by a structure (a building that is about 190 feet high with reference to grade) that houses an indoor memorial and museum for the WTC and the victims and events of 1993 and September 11 2001. Externally, the building looks exactly like the lower levels of WTC Tower 2 did before September 11, 2001, except that the overall structure is far shorter and the upper few floors look like the top of Tower 2. The building has doors on the northeast side which are in the general location of those used for entry into the mezzanine level of the original Tower 2 from the central plaza.

Inside the memorial structure on the footprint of Tower 2, the lower floor levels of the southeast side show what the corresponding part of the 2 World Trade Center Tower lobby and mezzanine were like before September 11, 2001, except that the mezzanine is slightly narrower and the southeast wall and part of the southwest wall of the lobby below the mezzanine are used entirely as a memorial to those who died in 1993 and on September 11. This memorial includes a 170 foot long display with a 4 x 7 inch print of a pre-September 11 picture and brief bio for each victim, plus large electronic monitors to temporarily display enlarged versions of visitor-selected victim data, plus additional information submitted by the families. The victims on all September 11 aircraft are also listed, but the names of the terrorists are specifically excluded. The large windows above the east side of the mezzanine are stained glass representations of the U.S. flag, the original WTC towers, firemen, police, civilian professionals such as some of the victims, and symbols for major religions of the victims. The side of the core area facing the lobby has a mezzanine level walkway and a few openings into the lobby that permit the stained glass windows to be viewed from a distance.

MAJOR ELEMENTS OF THE PROPOSED MEMORIAL – part 3 of 3

The mid level floors of the core area and northeast side of the Tower 2 memorial building have several meditation areas of different sizes that each have a terminal and large screen monitor from which information about the WTC, the events of 1993 or September 11, 2001, or information about the victims can be accessed. The highest floors include a WTC library, a library of Memorials (providing a nonprofit searchable database for memorials all over the country or even the world), a WTC and September 11 photo gallery, and a reproduction of part of the original WTC observation area. Elevators and stairs are in the core area. To resist attack, selected elements of the memorial structure are more robust than the corresponding original WTC Tower structure, and decorative blast walls are between the building and Liberty street. The top of the memorial building has a large flag pole and fixtures for appropriate projection of twin columns of light into the sky.

The lower core area and the western corner of all levels on the west side show what the area was like during and after September 11, 2001. The lower core area encloses damaged emergency equipment, sculptures, and other items, and an approximately 35 x 90 foot section of the full height of almost the entire west corner encloses a debris area and a tall standing structure representative of that which remained after the collapse of WTC Tower 1 or 2. Surviving original WTC elements (if available) are used for the exhibited debris area and the standing structure; however, if the original building remnants are not available, the exhibited standing structure can consist of an unfinished part of the memorial structure (with windows toward the outside) or be a separate structure that is assembled just inside the western and southern walls of the memorial structure. The full scale standing remnants of Tower 2 (visible only from inside the memorial structure (in deference to public comments) rather than the originally conceived area around the northern perimeter of the Tower 1 footprint) represents the poignant and lasting image that whole world witnessed. At the end of the day on September 11, this sight reminded everyone that the World Trade Center towers, and many people who occupied them, were really gone, and that the world had become a different place.

One outer wall of the lower core has a roughly 2 meter high etched figure of each original WTC tower, each with horizontal lines beside it to denote the floors of each tower. Between these horizontal lines, names of the 11 September WTC victims inscribed on rows that represent the floors they were probably on during the morning of the attack. The rows corresponding to the upper floors of the former WTC will obviously have more names, and the names of passengers on each of the flights that struck the original WTC towers are shown on the impact floors. The names of 1993 WTC attack victims could also be included here.

On top of the memorial building are permanent fixtures that facilitate the projection of twin columns of light that are similar to those first displayed on the 6 month anniversary of the September 11, 2001 attacks.

RELATIONSHIP BETWEEN THE PROPOSED MEMORIAL AND THE OVERALL WTC SITE

In order to be most effective, this memorial will have some influence on the site plan. LMDC memorial material states that a building “may be” over part of the footprint of Tower 1, indicating that spanning the Tower 1 footprint with non-memorial structures may be optional. For the present proposed memorial, it is best for the entire area over the Tower 1 footprint to be completely free of any non-memorial structures. This will permit the scale replicas of the twin towers to give visitors a sense of what the original towers were like.

In order to enhance visibility of the memorial and provide equal and unhindered access for both mobile and disabled people, it is best for nearly all elements of the memorial to be built on grade, with a roughly 180 foot long region around the southern part of the west slurry wall (and a sloped and terraced area to its north and east) to be the only exposed ground area below grade. This is not how the memorial site was presented in literature, but one look at the rendering herein will show the appeal of the on grade design. (The present memorial is illustrated on grade, though it can be built on an area below grade if that is the only acceptable level in which it can be located. However, I would strongly recommend an on-grade or nearly on grade memorial. This would increase visibility and accessibility, and tend to make it more a part of people’s lives.)

To provide visibility for the exposed part of the slurry wall, ground in the west corner of the memorial area is sloped and terraced at 4 to 5 foot vertical intervals to descend down to a 40 foot wide by nearly 180 foot long area that is 24 to 30 feet below grade and near the slurry wall. Access to this recessed area is provided by walking down the terraced ground, down several rows of steps, down a ramp, or by taking one of a few nearby elevators. There is also an underground concourse from the Tower 2 Memorial Building to the below grade slurry wall viewing area. Local elevators also go down to bedrock by the slurry wall, as do the stairs.

It is envisioned that parking dedicated to the memorial could (but would not have to be) be under part of the memorial area, with the limitation that there would be no parking on any level within at least 25 feet of the area (in the center of the Tower 1 footprint) in which unidentified remains of the WTC victims are entombed.

There should not be any commercial activity inside the actual memorial area, but there could be commercial areas in buildings outside the memorial area, and these could be connected to the memorial structure that is on the footprint of Tower 2 by an enclosed walkway.

It is envisioned that a nonprofit organization dedicated to providing cross referenced, searchable, and Internet accessible (and memorial kiosk accessible) databases for memorials and individuals memorialized throughout the country (and maybe even the world) will be associated with the WTC memorial or nearby infrastructure. If no organization of this type yet exists, efforts associated with the WTC memorial should undertake to start and support one. The proposed memorial includes this institution, making it a living memorial that enhances other memorials.

**THE PROPOSED MEMORIAL, DESCRIBED AS A NARRATIVE ABOUT
THE EXPERIENCE OF A FICTIONAL VISITOR – part 1 of 5**

From about a mile to the northeast, the new buildings that have been built near the World Trade Center Memorial are the most dominant objects on the New York skyline. Approaching the site from West Street, I see a striking 140 foot tall replica of the twin towers, followed by a full size reconstruction of the lower floors of WTC Tower 2. Walking onto the level memorial site from the northwest side (an on-grade accessibility a handicapped person could also take advantage of) I see a 30 foot deep recessed area (about 40 feet wide and 180 feet long) to the right (toward the west corner of the memorial site) that is surrounded by a sloping and terraced grassy area. After walking a few more feet and looking back at the recessed area, I can see that the recessed area has a long railing toward the northwest side, right by a wide area where the depression gets deeper. I can then see that the original WTC slurry wall defines the northwestern side of the recessed area.

Moving toward the replica of the twin towers, I cross onto a large paved area that is surrounded by benches with shiny metal sides and stone tops. I am sobered to realize that I have just walked into the footprint of World Trade Center Tower 1, once one of the tallest buildings in the world, and ultimately the site where over a thousand people lost their lives. As seems fitting for such a memorial site, there are no major structures on or over the footprint except twin tower replicas and a wide granite faced base below them. A U.S. flag is flying from the replica of Tower 1, with its pole being a replica of the Tower 1 antenna mast. The flag is larger than what would be scale for the size of the tower replica, but appropriate for the memorial. Approaching the base of the twin tower replicas, I can see that they are incredibly detailed and that they sit atop a wide and flat granite faced structure that appears to be a little less than 5 feet high.

From the west side of the pedestal, I walk right up to the base of the replicas of Towers 1 and 2 and look up. It is amazingly reminiscent of pictures of the original WTC towers, except that in the replicas, I appreciate the sense of soaring heights the original twin towers must have inspired. Moving to the north side, I see that the wide granite faced structure under the tower replicas extends to the east of the tower replicas and has dark granite sides that bear the names of many people. Above the names I see the solemn words “Here are Buried the Unidentified Remains of the Many Innocent People who were Murdered by the Horrific Terrorist Attacks of September 11, 2001.” On top of the eastern part of the flat structure is a fountain, with an eternal flame to the attack victims in the center.

Looking southeast from the east side of the memorial, I can see the actual bronze sculpture that once adorned the original World Trade Center plaza. It is damaged from being hit by debris when the twin towers collapsed, but is still recognizable. Surrounding it is a fountain and low ring-like structure with flowers on top.

THE PROPOSED MEMORIAL, DESCRIBED AS A NARRATIVE ABOUT THE EXPERIENCE OF A FICTIONAL VISITOR – part 2

Looking to the southeast, right where WTC Tower 2 used to be, I see a large building that looks just like lower floors of WTC Tower 2. It has the full width of the original tower, and except for its lower height (it is only about 15 floors tall) one could almost think they had traveled back to a time before September 11, 2001.

Seeing the massive size of the shorter Tower 2 structure and looking back at the smaller replica of the twin towers, it begins to dawn on me just how much was destroyed at this very place in only a couple of hours. Here died much more than even thousands of people and some large buildings. A certain notion of civilization died here as people lowered themselves to flying commercial passenger aircraft into buildings. A community also died here - an area shared by tens of thousands of people on a daily basis. The newer tall and vibrant buildings surrounding the memorial represent the beginning of a new community, but it is a different community. I am encouraged to see that the look and feel of the original World Trade Center towers has been captured and preserved on this hallowed memorial site, and that future generations will be able to see it.

Approaching the shortened version of Tower 2, I gain even more appreciation of details in the structure. The top of the building has the graceful curves characteristic of the top few floors of the original tower. I also notice that the doors on the northeast side of the building are where they used to be. Upon walking through a door just left of center, I am greeted by a dramatically large lobby that is several floors high, with a lower level being partially surrounded by the mezzanine on which I am standing. The tall windows on the southeast wall are not clear (like the corresponding windows of the original twin towers), but are instead beautiful stained glass representations of the U.S. flag, the original WTC towers, firemen, police, civilian professionals (such as some of victims), and symbols for some major religions. With the exception of the stained glass windows and a few openings in the core, my surroundings look just like pictures of the original WTC tower lobby.

Below the mezzanine, the entire southeast wall of the lobby (from a height of about 2 feet to about 6 feet) is occupied by almost 3,000 small (about 4 x 7 inch) prints having photos and 1-2 paragraph biographies of each victim of the 1993 and 2001 attacks on the World Trade Center. Seeing so many pictures and biographies lined up in several rows that are each about 170 feet long really lets one see just how many lives are represented by the number 3,000. The prints are behind glass, and (depending on the wishes of the respective families) also include the person's profession (including specifics for rescue workers) the date of birth, and the date each person died and the floor of Tower 1 or Tower 2 they were probably on. A shorter section of the southern wall of the lobby has the same information for those who died at the Pentagon and in the Pennsylvania plane crash.

THE PROPOSED MEMORIAL, DESCRIBED AS A NARRATIVE ABOUT THE EXPERIENCE OF A FICTIONAL VISITOR – part 3

Just above the numerous 4 x 7 prints, an array of 50 inch or larger wide screen monitors span the entire length of the lobby. These monitors display enlarged images of the victim information in the prints, plus a modest amount of other details that may be provided by families or friends on behalf of each victim. Each of the 4 x 7 prints has light below it that is controlled by a pair of buttons below each few columns of prints. The buttons sequentially switch on one light in the nearest columns of prints. The light indicates the person for which information is displayed in the nearest available large monitor. When no victim information is selected, some of the monitors display pictures that include patriotic subjects, New York, and the former WTC. I notice a sign indicating that the same information, as well as a searchable index for name, profession, employer, etc., is available at terminals in meditation rooms within the building as well as on an Internet web site.

Looking toward the core area of the building, I see a directory showing the location of major interior parts of the memorial as well as the location of stairs, escalators, ramps and elevators. Near the directory are free printed guides that allow you to go through the memorial and exhibits in many different ways. One way is to emphasize information about the victims, another is to go chronologically from conception of the twin towers, and another is a chronological record from an evening shortly before September 11, 2001. I decide to go through the memorials and exhibits in the latter order.

Having seen the grand lobby and the 10 percent scale replica of towers 1 and 2, the guide indicates I can either proceed to the upper floor or the roof (which has a lower altitude replica of the original tower's observation area) or go to an available meditation or media room. I go into one of the rooms and see a simplified computer terminal and large television with instructions about what I can access if I choose not to just meditate. The default historical presentation on the television starts with the last minute or so of the NBC nightly news for an evening before September 11, 2001. At the end of the newscast, the credits roll in front of an aerial picture of the World Trade Center, taken near dusk from a helicopter flying over New York City. There is then a short break and then I see the start of one of the morning programs such as Good Morning America. The date on the screen is September 11, 2001. Parts of the morning program are edited to be more brief than usual, and about 5 minutes into the edited program, the program host becomes very somber and says that a plane has just crashed into one of the World Trade Center towers. What follows is an unedited version of the news broadcasts (on different selectable channels) that cover the attacks of September 11, up to a few minutes after the collapse of both towers. The experience of seeing a day of infamy unfold and go from bad, to worse, to the unimaginable, leaves one with a sinking feeling, and I found I was already looking forward to again to seeing the tower replicas and the outside appearance of the memorial building.

THE PROPOSED MEMORIAL, DESCRIBED AS A NARRATIVE ABOUT THE EXPERIENCE OF A FICTIONAL VISITOR – part 4

The printed guide indicated one could stay in the room and see television or web coverage of later events all the way up to the dedication of the new buildings and the memorial, and that all of the information was available on the memorial's Internet web site. I noticed that there were also means through which deaf or blind people could experience the memorial and exhibits.

The printed guide also said one could, as an alternate to staying in a meditation or media room, go to observation areas the northwest side of the core structure, or to the southwest side of the mezzanine or the bottom floor, so I go to the southwest side of the mezzanine. As I exit the core area, I see an opening in the floor under which are smashed fire engines, sculptures, and other ruins from the WTC site. A few people on the lower level are looking at a fire engine up close. Moving further into the side of the mezzanine southwest of the core, I am astonished to see a large open area over a vast area of twisted debris, behind which stand the nearly 200 foot high damaged remnants of many floors of the original WTC tower's outer structure. This was the profound and saddening image that was burned into my mind after September 11, but now, seeing this, it is an image with infinitely more meaning. Among the debris, I see life size figures of a few working firemen in the distance. They look very small standing near the base of the huge structural remnants. The sheer size of the standing structural remnants and the disorder of the debris made it clear (for the first time) just how devastating the destruction was, how hopeless survival of the collapse would be, and how daunting the recovery work must have been. Above the lower floor, toward the core of the building, I see curtained windows on almost every floor, through which visitors can witness the shock and awe of seeing the full size of, and damage to, the standing structural remnants of the WTC tower.

From here, I exit the northwest side of the memorial building and walk toward the southwest. After clearing the building, I turn slightly toward the south and descend into the large outside depression that is bounded on the northwest by a 180 foot wide exposed section of the slurry wall. Approaching the wall, I see that the depression in the ground gets far deeper, and that a fenced railing is there to prevent one from falling into the deeper area. To the south side, I can see some switchback ramps and elevators that provide access for physically handicapped people. It is good to know that elevators are not required for the handicapped to experience the other outside elements of the memorial, which are almost on grade with the surrounding streets. From the fenced railing, I can see the full 70 foot height of the immense slurry wall that was made to keep out water from the Hudson River when the original World Trade Center was built. Taking the nearby elevator (stairs also available), I go down to bedrock level and view the lower part of the slurry wall up close.

**THE PROPOSED MEMORIAL, DESCRIBED AS A NARRATIVE ABOUT
THE EXPERIENCE OF A FICTIONAL VISITOR – part 5 of 5**

There are other memorial elements and exhibits to see in the memorial building that resides on the footprint of Tower 2, so I go back inside, this time by taking a short underground concourse into the lower floor of the building. As I enter the building, I walk between two vertical members of the structure and am then standing in a narrow area between the building structure and the standing remnant of the original tower. From this relatively narrow space, seeing the sheer size of the standing remnant is both impressive and sobering. Taking an elevator upstairs, I spend some time in the library, where I see the architect's original concept model for the twin towers. Finally, I begin to leave the building to go get a bite to eat and turn in for the day.

It is dusk as I leave the building, and I can see that the scale replicas of the twin towers have lights inside their window openings. They look just like a full size building would look when seen from a greater distance, and their appearance is reminiscent of the picture on the pre-September 11 part of the video that I had seen just hours before in the media and meditation room, only far more detailed. Behind the twin tower replicas, I see the contrasting architecture and commanding heights of the 1,776 foot spire that dominates the redeveloped World trade Center site.

Visiting the memorial has been an enlightening experience that has changed the way I look at things. I have begun to grasp the gravity of what happened on September 11, 2001, The effects of that happened that day go far beyond those who lost their lives to deliberate terrorist attacks. The world is a different place, and after September 11, it will never be the same. The United States of America will never be the same. New York will never be the same. The WTC site, even though the memorial is reminiscent of the original towers, will never be the same. And after seeing this memorial, I will never be the same.

ALTERNATIVE DESIGNS FOR SELECTED ELEMENTS OF THE PROPOSED MEMORIAL

- Within the Tower 1 footprint, an alternative for the level area around the tower replicas and the inscribed pedestal with all of the victim's names would be to slope the surrounding circle of grassy ground down from one side, probably with the lowest part toward the west or northwest. Dark granite vertical walls would then define the boundary of the circular or semi-circular below grade area that results from sloping the area of grassy ground. The names of all victims would be displayed on this below grade wall. The pedestal below the tower replicas would then be inscribed only with names of September 11 victims for whom remains have not been identified, since this would effectively be their grave marker. Also, it may be fitting to list victims named on the pedestal according to the tower and floor they were probably on when the twin towers collapsed.
- Depending on public acceptance, a cross would reside on top of the replica of tower 2.
- Rather than indicating unidentified victims with gold letters on the pedestal under the tower replicas, the space between listed names is widened and a symbol is used to indicate the unidentified, and to indicate any future identification of remains for a given person.
- Scale of tower replicas could be reduced, but too much reduction would reduce their impact.
- Part of pedestal surrounding eternal flame is lower and nearest part of surrounding ground is level.
- Elevate memorial building on Tower 2 footprint so floor 1 (rather than mezzanine) is on grade.
- In order to fully address concerns expressed by the families of many of the victims, there would be no habitable structure or infrastructure within the footprint of either original WTC tower. However, the LMDC-selected Libeskind site plan calls for a museum to reside in the area formerly occupied by the WTC plaza. To address concerns expressed by many victim's families, the memorial building currently shown on Tower 2 footprint would ideally be moved to where Libeskind-designed museum is currently shown. However, the currently shown location of the memorial building on the tower 2 footprint does function to appropriately enclose standing structural remnants of the original tower in a way that permits said remnants to be in about the same place they originally stood.
- Relocate memorial building on Tower 2 footprint to Tower 1 footprint and expose nearest part of slurry wall.
- Entire southwest side of memorial building (rather just half of this side) could be occupied by standing remnants
- Move spherical sculpture to inside memorial building or to between memorial building and Libeskind museum
- Add some debris from WTC site to area immediately surrounding spherical sculpture.
- Remove terraced grass around visible part of slurry wall and make below grade area narrower.
- Lower memorial ground area to the LMDC recommended below grade level, with floor 1 of the memorial building being even with the below grade ground level of the memorial area.
- Lower memorial ground area to the LMDC recommended below grade level, but just for the area between the memorial building and the visible part of the slurry wall.
- Add a tapered flag pole having a 50 to 70 foot diameter base and a 1,365 to 1,800 height to the central part of the memorial area. The flag pole would have elevators to the 1,365 foot level and lights or symbols at the altitudes where each of the twin towers were struck by aircraft.

Bibliography

- Introduction for this bibliography:
 - Some versions of this or an associated document may include reference photos or drawings of the original WTC site or background elements of proposed site developments that are the work of other authors. In such cases, all such material is indicated in the document and/or shown in the bibliography below. Some reference drawings or photos (satellite photos of the original WTC site, for example) may appear at many web sites or in more than one printed publication. In this case, the original source (if located) or the source having the best version of the reference (or from which legitimate use permission, if necessary, is obtained) is shown in this bibliography.
- References:
 - Text of LMDC Mission Statement and Memorial Program Guiding Principles, etc., are quoted to show how they are appropriately addressed in the proposed memorial.*
 - Background art of Libeskind-designed museum and distant buildings were taken from the Studio Libeskind material that is published in the LMDC Memorial Competition guidelines.*
 - Textures and outlines for perspective rendering of twin tower replicas, spherical bronze sculpture, and exterior and lower interior of Memorial Building are a combination of original drawings and several pictures (many of unidentified origin) of the original WTC complex.*, **
 - Conversations with my brother, David L. Charles, where he briefly described a prior discussion with a Vietnam Veteran about designing a computer database to cross reference nicknames, units, etc., of servicemen to the names of the corresponding people, as shown on the Vietnam Memorial.**
 - Gold letters to identify those for whom remains have not been identified suggested by Ludwing Juarez.
 - Placement of some elevators and vertical members of original WTC core structure are taken from the “Drawing of Typical Floor” in the ARUP WTC Briefing 2, 26 September 2001.**
 - Some information about construction of the original WTC was inferred from video and photos taken before, during, and after 11 Sep. 2001, and from various technical papers.**
 - Preliminary Proposal for Rebuilding the NYC Site of the World Trade Center; Concepts and Designs for Infrastructure and Memorials Applicable to Rebuilding at New York WTC Site. Jeffrey R. Charles, 2003.**
- * Indicates some or all of reference item may be included in this document. Copyrights are by the respective authors.
- ** Indicates reference item is not actually included in this document.