ONE DAY IT SHOULD LOOK LIKE THIS: The Port Authority of New York and New Jersey expects the World Trade Center property to be completed as shown within the next decade.

To be taller and safer, One World Trade Center more than halfway completed
Ocean County Gazette-Staff Report

It is the most publicized and anticipated building in the United States of our time. 1 World Trade Center, its legal name, sometimes known as the ‘The Freedom Tower’, is the Port Authority of New York and New Jersey’s 1,776 foot tall, 3.1 billion dollar baby. It is to be located at the corner of West and Vesey streets in Lower Manhattan, on the site of the original 6 WTC, destroyed in 2001, and slightly offset from the original location of the ill-fated twin towers.
Be it the twin towers in their original configuration or the land in its updated plan, it is still the World Trade Center, which is an attitude, perhaps, versus specific buildings. Originally built in the 1960’s, the goal of the site is to be a symbol of America’s dominance over global commerce, and a, “a complex dedicated to companies and organizations directly taking part in world trade”.

At the center of the original 110 story, 1,350 foot towers stood an enormous “sphere”, an object of art that survived the attacks relatively intact and is on display in Battery Park City in Manhattan today. The sphere’s motto is that of the complex, “World Peace through World Trade”.

Because of the tragedy that happened on the 16-acre property that composes the World Trade Center, with nearly 3,000 innocents lost in 102 minutes on September 11, 2001, it took a half decade to decide what would be rebuilt on the land, and after many drawings and redrawing of plans, another half decade to see it coming together. Estimates are that it will take another decade to complete the entire rebuilding process: a full 20 years post-9/11.

1 WTC, the new tower, will be the tallest in New York, and in the United States, and will overlook two glimmering memorial waterfall pools equal in size to the bases, and on the exact sites of the ill-fated twin towers. These pools will be part of the National September 11 Memorial and Museum at the World Trade Center, specifically a memorial called “Reflecting Absence”, and will be inscribed with the names of those killed when the towers had jumbo jets flown into them and collapsed on September 11, 2001, and also the names of the 6 people killed on February 26, 1993, when the basement of the twin towers was bombed, but the structures survived. The names of those who perished will appear at street level, but the actual museum will be 30 feet below ground level in a piazza, an underground city square. Surrounding the pools at the street level will be many trees (described as a ‘forest’), which have already been planted. The memorial and museum is slated to open on September 11, 2011.

As of April 16, 2011, the new 1 WTC has reached a height of 64 stories, half its height, and twelve stories higher than its neighbor, 7 WTC, finished in 2006, which replaced another tower lost in the 2001 terrorist attacks. With an approximately 4 stories of steel added each month, by September 11, 2011, the new 1 WTC will be at about 80 stories. Given that rate, the remaining 24 stories would be completed by around May 2012. This would bring the total floors of the tower to 104, and with its distinctive “parapet” top, the roofline of the building will be equal to that of the first 1 WTC, at a height of 1,368 feet. From this point, a 408 foot spire will rise, bringing the building to its symbolic height of 1,776 feet, the year America declared its independence, hence the nickname, The Freedom Tower. The building is expected to be occupied sometime in 2013 or 2014.

An indoor observation deck will be located on floor 79. A restaurant near the top of the tower was planned, but that idea has apparently been nixed. Again, this is not the first change from the original plans. The 1 WTC that will be reality is drastically different than the original winner of a design competition, architect Daniel Libeskind, who called his idea ‘Memory Foundations. That design called for The Freedom Tower to have an offset spire. However, safety concerns later
changed the building back more from the street. For a time, another nickname for the project was, “The Fear Tower”.

The tower’s architect, David Childs of Skidmore, Owings, and Merrill, said of 1 WTC, “It will be a symbol of the entire project, as well as marking the memorial, and it occupies a very important piece of New York City property: the sky. We really wanted our design to be grounded in something that was very real, not just in sculptural sketches. We explored the infrastructural challenges because the proper solution would have to be compelling, not just beautiful. The design does have great sculptural implications, and we fully understand the iconic importance of the tower, but it also has to be a highly efficient building.”

The building itself it touted as being “green”. It will collect rainwater, and recycle it for use in its cooling system. The building will be heated with steam, and excess steam will be converted into electricity. It is expected that the group Leadership in Energy & Environmental Design will certify 1 WTC as “Gold”, its second-highest rating.

As far as safety, 1 WTC will have a 185 feet tall concrete bunker at its base, one covered with blast-resistant prismatic, reflective glass. All stairwells, elevator shafts, risers, and sprinkler systems with be encased in 3-feet of concrete, unlike the simple drywall used in the original twin towers. The exit stairways will be ‘extra wide‘, and will include a third set that is for fire and rescue personnel exclusively. As far as the “curtain wall” of the 69 floors above the bunker, the glass and aluminum facade of the building, it is said to be able to stand up to the winds of a Category 5 Hurricane, and be up to “strict security measures”, although these have not been exactly disclosed. Tests on a mock-up of the curtain wall have seen it survive simulated earthquakes and enormous explosions without flinching. Even though it cannot be known for certain, it seems very unlikely that a repeat of 9/11: an airplane crashing into and breaching the tower’s internal structures, with subsequent fires melting the steel and causing the building to collapse is an extremely unlikely scenario with the new 1 WTC.

The Port Authority has stated: “Its structure is designed around a strong, redundant steel moment frame consisting of beams and columns connected by a combination of welding and bolting. Paired with a concrete-core shear wall, the moment frame lends substantial rigidity and redundancy to the overall building structure while providing column-free interior spans for maximum flexibility.”

Although the steel is being added first and is higher, the curtain wall is gaining fast, both at about a story a week.

As far as tenants for 1 WTC, publishing giant Conde Nast has signed on to occupy one million square feet of the structure. The State of New York has signed a 15-year leased for 415,000 square feet. Other tenants include the United States General Services Administration, and the New York State’s Office of General Services.
Upon its completion, the combination of the new buildings of the World Trade Center is expected to be glittering and dazzling, judging by artists renderings. As if 1 WTC were not high enough, at the pinnacle of its spire, a beacon of light will shine high into the night sky, with a visibility up to 1,000 feet.

Perhaps another motto of the new 1 WTC could be that, “a building can never be too tall, or too safe.”

The very helpful press office at the Port Authority of New York and New Jersey has a live online feed of the progress of 1 WTC, at the following link: http://www.panynj.gov/wtcpurpose/live-camera.html

This photo was taken live on the afternoon of Tuesday April 19, 2011 via a camera positioned by the Port Authority of New York and New Jersey in Lower Manhattan. It shows current progress of
One World Trade Center, now at 64 stories, 12 higher now than its neighbor, 7 World Trade Center, completed in 2006. The tower will reach 104 stories, and will reach its zenith height of 1,776 feet within the next year. A portion of the reflective and beautiful, yet extremely strong, “curtain wall” is obvious in this photo. The building being reflected is one of the towers of the World Financial Center, across from the WTC property."