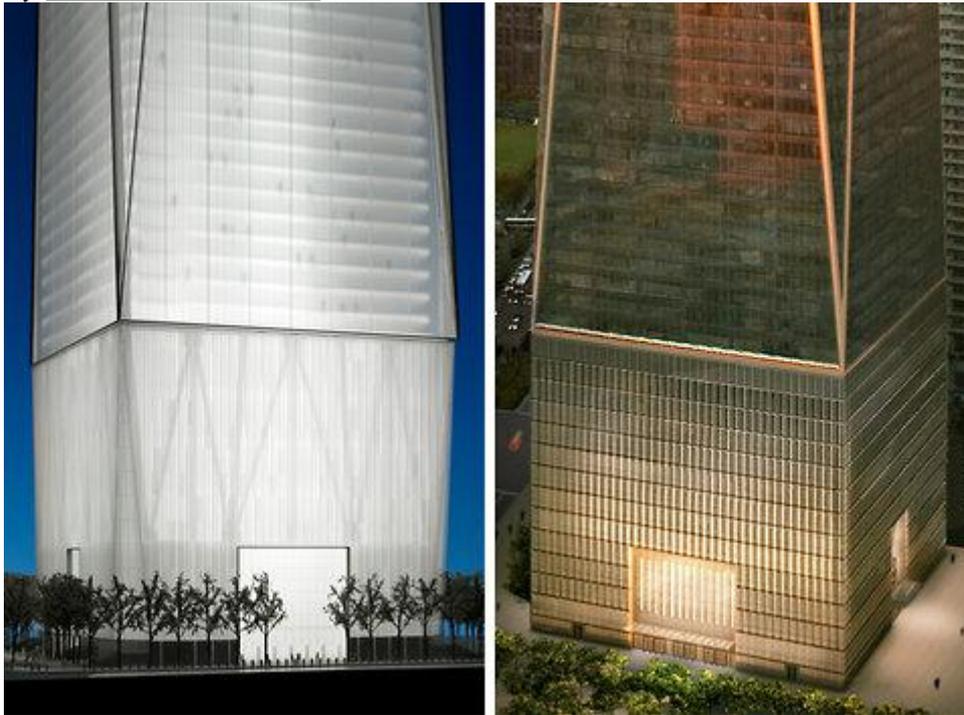


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1 World Trade Center Is a Growing Presence, and a Changed One

By DAVID W. DUNLAP



Skidmore, Owings & Merrill/Silverstein Properties (left); Durst Organization (right) In the 2006 design for the base of 1 World Trade Center, left, the structure was to have been clad in prismatic glass, with corners that sloped outward from the ground. The current plan, right, substitutes glass fins and eliminates the inclines at all four corners.

When President Obama visits 1 World Trade Center on Thursday, he will find a tower that is undeniably impressive and — even a year and a half before its scheduled completion — unquestionably a landmark of 21st-century New York.

But it is not exactly the tower New Yorkers were led to believe they would see when the plans were unveiled in 2006. Since the Durst Organization joined the Port Authority of New York and New Jersey in 2010 as the effective codeveloper of the project, it has revised the design in a number of ways.

“I think they’ve been few and minor,” Patrick J. Foye, the executive director of the Port Authority, said in a telephone interview Monday. The authority has approved all the revisions.

Taken together, it is true, the design revisions will probably not much alter the presence of 1 World Trade Center on the city's skyline. But they may change its place in the civic consciousness, if the tower is perceived as too isolated or fortified at its base, or as having too little of a symbolic spire at its summit.

What was supposed to be a cascade of steps from the building's west plaza down to Vesey and West Streets will instead be a terrace, set apart from West Street by a blocklong landscaped planter. Durst has also eliminated a skylight set into the plaza that was supposed to bring daylight to the observation deck lobby below ground.

Rather than being clad in panels of prismatic glass, the 185-foot-high base of the tower will be covered in hundreds of pairs of 13-foot vertical glass fins set against horizontal bands of eight-inch-wide stainless-steel slats. The corners of the base will lose what was supposed to have been a gentle but distinctive outward slope.



Durst Organization The glass fins in the new design are arranged in pairs, most of which form V shapes.

The rooftop mast will no longer be enclosed in a sculptural sheath of interlocking fiberglass panels but will instead be an exposed latticework structure. This may affect whether the arbiters of building height include the mast in their calculations, which would bring the 1,368-foot tower to a recognized height of 1,776 feet.

If the result of all these changes is to lower the construction budget — something the Durst Organization has a strong financial incentive to do — that was not their purpose, said Douglas Durst, the chairman.

“We didn’t make the changes to save money,” he said. “The changes were made in order to construct the building.” Mr. Durst said some features specified by the architects at Skidmore, Owings & Merrill and the landscape architects at Peter Walker & Partners would have been all but impossible to build and maintain.

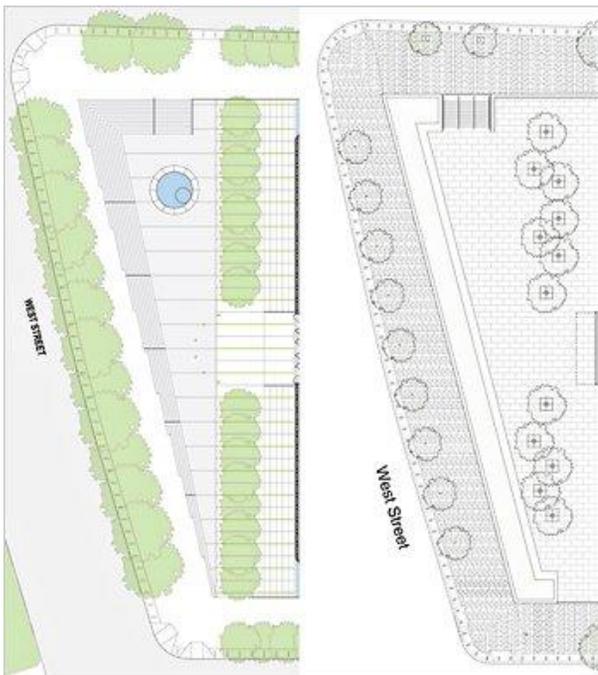
Whatever the motivations, savings worth millions of dollars have been identified, though neither the Durst Organization nor the Port Authority would estimate the amount.

Durst originally sought what would have been, in essence, a construction management fee of \$35 million for what it envisioned as five years of work. The authority was unwilling to pay that amount. Instead, a deal was negotiated under which Durst would receive a \$15 million fee and be entitled to a percentage of any “base building changes that result in net economic benefit to the project” — cost savings, in other words — that Durst had initiated and recommended.

In August 2010, the Port Authority board authorized incentives to Durst of 75 percent of any savings it realized up to \$12 million, and 50 percent of any savings it realized beyond \$12 million. Subsequent negotiations changed the benefit to Durst, with a formula running from 75 percent of savings up to \$24 million, stepping down to 50 percent, 25 percent and 15 percent as the savings increased.

After a year in which the design revisions have come out publicly in dribs and drabs, Mr. Durst and his senior project manager, Tony Tarazi, sat down with a reporter last week to discuss the changes comprehensively.

The biggest revision that has received the least public attention is to the large triangular plaza on the west side of 1 World Trade Center. Because of a grade change on the site, the plaza is up to 5 feet 8 inches higher than the surrounding sidewalks. The original plan called for broad stainless-steel steps to address that height difference.



Skidmore, Owings & Merrill (left); Durst Organization (right) The west plaza in plan, with Vesey Street at the top. The 2006 design, left, had broad steps down the sidewalks and a skylight (blue circle) over the observation deck lobby. The current design, right, is a terrace, reached by stairs at Vesey Street and bordered by a blocklong planter.

“We wanted to create as much plaza as possible,” Mr. Durst said. “We didn’t see that the steps added anything, because most people don’t come in from the west.” Durst executives also questioned the wisdom of using stainless steel as a walking surface.

Peter Walker & Partners stepped away from the project and was replaced by Mathews Nielsen, of which the landscape architect Signe Nielsen is a principal. The Walker firm remains involved in the the 9/11 Memorial.

Under the new design, the plaza would occupy a terrace above sidewalk level, reached by a staircase on Vesey Street. The terrace would be paved in granite, have about a dozen sweetgum trees and a blocklong planter that would double as seating.

“The stainless-steel pavers turned out to be very slippery,” Mr. Foye said, “and there would have been times of inclement weather where there was a danger.”

The windowless base — a mechanical enclosure and protective concrete pedestal for the tower — is as high as a 15-story office building. The equipment within needs ventilation, so the facade must be permeable.

David M. Childs of Skidmore, Owings & Merrill specified a cladding in panels of laminated glass with a saw-tooth face made of prisms in a vertical array. Screened gaps between the panels would have allowed the mechanical equipment to breathe.

The chief problem, Mr. Tarazi said, was that the Chinese fabricator chosen for the job, Sanxin Glass, was unable to mill the saw-tooth pattern in sheets of tempered glass without deforming the panels beyond the tolerances needed for proper installation. Mr. Foye called this a “design failure.” Christopher O. Ward, the executive director of the authority when the decision was made to abandon prismatic glass, called it “a good design that couldn’t be fabricated.”

In any case, the revised design was made public last month in [The New York Post](#). It consists of an aluminum screen, in front of which are horizontal stainless-steel slats, in front of which are rows of fins, arranged in pairs, that are made of laminated glass with a reflective surface on one side and a translucent, acid-etched matte finish on the other.

In the bottom and top rows, the fins will be “open,” flat against the facade. In the intermediate rows, the fins will “close” to form shallow V shapes, at angles ranging from 7.5 degrees to 60 degrees. The slats will be visible through the interstices.

Just behind the fins will be LED arrays whose light will be reflected outward by the slats. That could open the possibility of enormous multicolored lighting compositions. But Mr. Foye said the Port Authority would be “very measured and circumspect” in the kind of illumination it allowed at the tower, keeping in mind its location directly north of the 9/11 Memorial. “It will not be lit in a rainbow or a plethora of colors,” he said.

Perhaps the greatest architectural casualty of the redesigned facade are the inclined — or chamfered — corners of the base, which have already been constructed at the intended 3.8-degree angle, forming enormous, slender isosceles triangles in steel and concrete. These corners will be squared off by the cladding.

Mr. Tarazi said it was the architects' idea to eliminate the chamfering when it became apparent how difficult it would be aesthetically to resolve the clash between the vertical lines created by the fins and the sloping lines at each edge. "S.O.M. saw it as an opportunity to improve on the design," Mr. Tarazi said, "and I think they did."



Durst Organization (left); Skidmore, Owings & Merrill/dbox (right) The original design of 1 World Trade Center, in rendering at left, included a sculptural enclosure for the building's mast. Stripped of the cladding, the mast could be considered an antenna, not a spire, reducing the official height.

Through a spokeswoman, Skidmore, Owings & Merrill declined to comment. That underscores how remarkable it was last month when Mr. Childs publicly expressed disappointment with the decision by his clients not to build a radome, as such structures are known, to enclose the mast. "Eliminating this integral part of the building's design and leaving an exposed antenna and equipment is unfortunate," he said in a statement.

Though radomes are common on tall buildings and towers, Mr. Foye said Mr. Childs's design "would have been very difficult to build and impossible to maintain."

Elimination of the radome may make it harder to persuade the Council on Tall Buildings and Urban Habitat, a worldwide arbiter of such things, to include the mast in its calculations. If the council rules in 2014 that 1 World Trade Center is 1,368 feet tall, Willis Tower in Chicago would not be dislodged as the tallest building in the United States.

The concept of the new trade center towers culminating in a point 1,776 feet in the sky was introduced nine years ago by Daniel Liebeskind, the original master planner of the site. Asked this week about the design change, he said through a spokeswoman that "the tape measure still extends 1,776 feet from the ground to the tip of the spire, so the tower remains a spectacular symbol of American resilience and democracy."