

Project:

# Building the Oculus: The Blueprint

The Oculus is the signature steel structure that sits on top of the new World Trade Center Transportation Hub. The winged structure was designed to mimic a bird in flight.

Here is how all the pieces came together:

## 1 From concept to reality

The steel for the Oculus is so specialized, only four firms in the world were able to make it. The steel (fabricated in Italy and shipped by boat to Red Hook, Brooklyn) was trucked over the Manhattan Bridge at night directly to the World Trade Center.

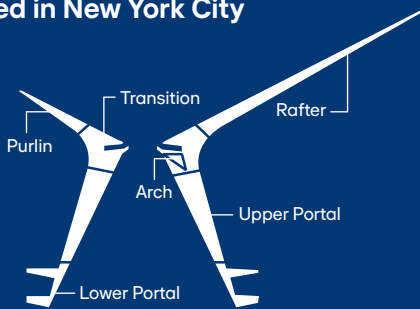


## 2 Putting the pieces together

Building the Oculus was like erecting an **11,500 ton, 588-piece jigsaw puzzle**

To ensure the building is structurally sound, the steel couldn't be off more than 1/8 of an inch, **half the thickness of an iPhone 6**

Lifting the steel into place required **Two of the largest capacity tower cranes ever used in New York City**



**2,255 welds**  
hold the structure together

**612,300 work hours**  
to complete the steel erection

**140 ironworkers**  
at peak of construction

**Used highest aerial lifts available reaching 185 feet**  
as high as the Plaza Hotel

**11,500 tons of steel**  
that's as heavy as 270 Subway cars

**The longest beam is 202 feet long and weighs 80 tons**  
that's as heavy as 27 SUVs

## 3 What is the Oculus?

Now complete, the Oculus will serve as an underground crossroads. It connects the World Trade Center Memorial Site, World Trade Center Towers 1, 2, 3, and 4, the World Financial Center and the Winter Garden. It's also the gateway to:

**225,000 square feet of retail and restaurant space**  
larger than Bergdorf Goodman

**250,000+ commuters daily**  
more than Los Angeles and Miami combined

**11 subway lines**  
PATH rail lines and the Hudson River Ferries



#BuildingWhatMatters