

## **Madrid Rio Park**

The Madrid Rio Park is based around the redevelopment of the existing M30 highway where a portion of the highway ran along both sides of the Manzanares river, creating undesirable areas to live or work, and also completely cut off public access to the river.

The M-30 highway circles the inner districts of Madrid, and is the innermost ring road of the city, with outer roads M-40 and M50 beyond. There are typically three lanes going each direction for the majority of the roadway, but goes up to six in some areas. The M-30 is the busiest Spanish roadway, and is known for its traffic congestion. The construction of the original M-30 began in the 1960s, and wasn't officially completed until the 1990s.

In 2003, the new mayor of Madrid had a plan for the transformation of the M-30 highway by deciding to bury portions of it in stages. The project included 43 km's of tunnels, with 6 km's alongside the River, which resulted in a new undeveloped portion of the city where the highway used to be, resulting in the new Madrid Rio Park. The total budget for the burying of the highways was 6 billion Euros, which was publicly funded by the Madrid city government. The project was started during a speculative boom in Spain, but was mismanaged and completed at almost twice what it was originally supposed to cost.

The reasons for the tunneling of the highway were to reduce the amount of accidents by 50%, reduce greenhouse gases by 35,000 tons per year by increasing the efficiency of traffic flow and reducing congestion, and revitalizing areas of the city that were previously divided by the highway.

The tunneling was done by both the use of a tunnel boring machine and a cut and cover process. The tunnel boring machine was the biggest ever required allowing for three lanes of traffic with a diameter of 15.2 m. This was a very similar process to the channel tunnel project.

In 2005, an international competition was announced for the design of a master plan for the reclaimed urban area by the river. The winning team's submission was to revitalize the area purely through landscape architecture and not by developing the area with buildings.

The aim was to bring people back to the river banks and create new urban public space which would provide for connections to other existing parks and green spaces throughout the city.

The project consisted of 47 smaller subprojects which had a combined budget of 280 million Euros, which excluded the budget for burying the tunnels. The park area was developed in separate phases, covering 6 districts through Madrid and included the construction of new parks, boulevards, various public squares, a new urban beach, skating rinks, as well as 11 new foot bridges along with the upgrading of existing historic bridges crossing the river to provide better access to both sides. Thousands of new trees were planted to provide shade along a total of 30 km's of bike paths, and 42 km's of pedestrian paths.

The highlight and main objective was to bring people back to the river, connecting people to the existing and new green spaces, as well as to the other districts of the city. The water quality was improved and

reclaimed as a public amenity for the city where people could interact with it and enjoy its natural presence.

Apart from the park, the transformation to the city includes over 14 km's of new transit routes and dozens of new metro and light rail stations that will link previously disconnected outlying areas to the city's downtown core. As well, many of the surrounding buildings that neighbour the new park have been upgraded through a sustainable rehabilitation program through government assisted subsidies.

I think this is interesting because it took less than 15 years of being completed for the government to decide the highway was a bad idea, but it was also a key component of the transportation network of the city. I wonder if this portion of the road couldn't have been diverted to one the other ring roads around the city, it was really necessary that traffic flow right through this part of the city. I think an alternative to this would just be the erasing of the infrastructure as a whole, or diverting it completely. If the roads are all buried with fewer access points within the city, I wonder why they really need to be in that location at all.

## References

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