London Skyscraper's Glass Facade Melts Cars

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The 160-metre tall skyscraper currently under construction, known as Walkie Talkie, has a concave structure and glass façade which some say reflects intensified heat onto nearby buildings, streets and roads. As a result, some critics are now calling the skyscraper “Walkie Scorchie”.

A motorist, who parked across the building for an hour, said the skyscraper was responsible for warping his Jaguar and melting the car’s wing-mirror.

Another motorist who parked his car beneath the building claimed that every bit of plastic on the left hand side of the car and everything on the dashboard including a plastic bottle had melted.

Developers Land Securities and Canary Wharf have recognised the problem and have closed three neighbouring parking bays while they explore a solution.

“The phenomenon is caused by the current elevation of the sun in the sky,” the developers said in a joint statement. “It currently lasts for approximately two hours per day, with initial modelling suggesting that it will be present for approximately two to three weeks.”

Warped Jaguar

The heat reflected from the organic curving of the glass is similar to the effects of burning items with a magnifying glass.

Architect Rafael Viñoly originally designed the 37-storey skyscraper building, which is being built at 20 Fenchurch Street, to mirror the city street and follow “the contour of the river and the medieval streets that bound the site, while further contributing to the evolution of the high-rise building type.”

Viñoly won a design competition held by the developers to design the energy efficient building, which has a “very good” BREEAM rating according to leading building authority Emporis.

“Solar gain to the east and west facades is reduced with the use of external solar shading and solar control glazing, whilst on the south side of a high performance, a triple glazed externally ventilated façade is employed,” Emporis’ website states of the building design.

Designer Vision upon completion

The concave building, due for completion next year, also challenges conventional design by widening at the top rather than at the bottom to house a three level Skygarden.

Wwhile there are no reflective limits in place for building facades, ironically, the City of London has a “Right to Light” law. This old English law ensures properties which have received natural daylight for more than 20 years are entitled to keep that level of illumination and not be cast into shadows by surrounding buildings.

Solving façade glare is a growing problem as buildings rise in denser areas. Similar cases were reported with buildings in Las Vegas and Los Angeles.

In 2010, another Viñoly project – the Vdara Hotel in Las Vegas – had a concave shape that reflected the sizzling Nevada sun onto the swimming pool below.

Guests complained of sunburn and being “scorched” with the heat reflected off the building dubbed “death rays.” The problem was reportedly solved with large sun umbrellas and the construction of a shade structure.

Back in 2005, Frank Gehry’s Walt Disney Concert Hall in Los Angeles also created extreme exterior reflectance, with parts of the building featuring highly polished panels that amplified the sunlight onto adjacent building facades.

Walt Disney Concert Hall

The building was given a film coating which was unsuccessful in diminishing the glare and was eventually sanded down to “dull” the surface finish.

Elizabeth Valmont, a student from the School of Architecture at the University of California completed a paper on the the Walt Disney Convert Hall façade with a great abstract for consideration.

“Buildings have an impact on the environment as a macroscale in terms of the resources that they use. But they also have impact in the microclimate of their immediate surroundings,” she said.

While the sun is a moving target and will always reflect in the growing built environment, architects and developers must consider that while their buildings may feature an energy

efficient facade that successfully blocks solar heat gain, it could possibly affect the environmental credentials of neighbouring buildings should the facade be too reflective.