

#### **OWNER:**

Changsha Dell Real-Estate Development Co., Ltd.

#### **ARCHITECT/ENGINEER:**

China Machinery International Engineering Design and Research Institute Co., Ltd.

## **CONTRACTOR:**

Sunyong Group

### **APPLICATORS:**

Sunyong Group Changsha Municipal Construction Engineering Group Co., Ltd.

### **DISTRIBUTOR:**

Hunan Kaidun Waterproof Engineering Co., Ltd.

## **BACKGROUND**

The term *American dream* refers, in part, to the United States of America's notion that upward social mobility and success is possible for every individual through hard work. This popular mindset can be seen in an array of different capacities, including where one lives. Changsha Dell Real-Estate Development Co., Ltd. has taken this idea to heart with their American Dream development in Changsha, China. As a result, their project features low-density residential homes with aspirational American design cues.

During construction, these features needed to be built in two phases and they would also have to contend with a region that has heavy downpours and rivers near a growing population. The water would pose the greatest challenge for building as it is the leading cause of concrete deterioration. But a growing population also meant that there would need to be a focus on sustainable construction. All of which made it necessary to find the best concrete waterproofing solution available.

# SOLUTION

In that search, the project team wanted to avoid the common leaking problems associated with risky external membranes, so they chose to use Kryton's Krystol® products as their waterproofing solution instead. As a result, they applied the products to the parking lot, basement, roof, walls, and balconies of the development's villas and high building, which had a total waterproofing area of 28,541 m² (307,212 ft²).









As part of that, they used Kryton's KMA for the outer walls of the villas, which was easy to install and offered superior performance when it came to self-sealing minor cracks and withstanding water under pressure. For the basement and walls of the villas, the team applied Kryton's Krystol T1. That would prevent the passage of water through the surrounding concrete's capillary pores, micro-cracks, and joints. Then, to ensure it was all thoroughly protected, they used Krystol T2 in the basements, roofing, and parking lot, which allowed them to waterproof the concrete for the life span of the American Dream development.

The use of all of these products saved the project team time and money, ensuring that they in turn could live the American dream along with those lucky enough to become a resident of the development.

