The Flanagan Corporation

Better Solutions – Faster Response

TRYST Water Feature – Wynn Casino

Overview: Can you imagine loosing more than 30,000 gallons of water a day! Well this is what the Wynn Las Vegas Casino said they were up against when they approached The Flanagan Corporation in consideration of the use of Polyurea's to solve their leaky problems. The water feature at the TRYST Nightclub is a main attraction for the club and down time was a critical problem. Since the night club generates as much as $250,000 revenue a weekend it is no wonder this was of importance. One of the big challenges was the fact that it seems much of the leaking was coming from 4 weirs that cascade down to the main water feature. Behind the wall where the weirs were formed was a verity of electronics and occupied space that was critical to protect.

Description: This particular water feature had some very challenging issues that would need to be addressed. It was obvious that most of the leakage was from cracks that extended for several feet in each weir. We knew that when we drained the holding pools that it make take several days or even weeks for the water to stop seeping up from the cracks. Since down time was so critical and we only had 3 days to complete the project we had to come up with an engineering solution that would allow for us to coat over the wet cracks. In an effort to stop some of the water seepage we filled the cracks with a low viscosity epoxy with a fast set urethane gap fill system to form a dam. Next we would using some plastic pipe cut in half and attached over the crack leaving a place for the water to escape behind the Polyurea coating that we would install later.

We also were concerned with the water chemistry since chlorine and bromine were used. To avoid premature failure of the Polyurea (High Chemical System) we used a Fluoropolymer as a top coat. This would also give us UV resistance that was also desired.

Products: A 2 part fast set polyurethane primer was selected for the priming of the concrete. Next we used a High Chemical Resistant Polyurea system to help with any potential exposure issues incase of top coat failure. As a top coat we selected a Fluoropolymer system to avoid premature failure caused from the Chlorine and Bromine that was used to keep the water clean. The Fluoropolymer would also give us the UV resistance that was required by the customer.

Results: The results of the coating selection were a success. Today they are seeing a drastic drop in the daily water loss and noticing less and less leaking into the occupied space behind the weirs. Because of the success they are not considering the same application for various other water features that are in a similar situation.

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