Hutchinson Channel

US SPEC Products: GP Grout, Quickset 20, Maxcure Wax White
Contractor: Territory Unlimited
Date of Completion: September 2014

The Hutchinson Channel runs through residential areas of Aurora, Colorado. This channel is used to carry storm water downstream in a high water event and keep nearby homes from flooding. Originally built in the 1970’s, the channel is now in need of repairs. The current panels are cracking, deteriorating and no longer stable; they need to be removed and replaced with new panels. A drop section was also added to the base, lowering the center of the channel. As this work is being done any surface repairs that are needed are also being addressed. Construction on this section of the project was scheduled for September 2013 however; this is an ongoing repair of several sections. More work is scheduled for 2014.

Three US SPEC products were used on this stage: GP Grout, Quickset 20 and Maxcure Wax White. Products were supplied by United Supply located in Denver.

US SPEC GP Grout was used at the base of the new panels that were being installed. The grout was used to transfer the load of the sloped wall panel to the base of the channel ensuring there is no movement and the panels stay securely in place. GP Grout was placed between the two panels and then troweled to match the slope of the panel. The material also helps to keep water out from behind the panels in event of a flood. The contractor, Territory Unlimited, liked the workability and consistency of the material. The grout also met all of the requirements of the specification and there was no problem getting it approved.

US SPEC Quickset 20 was used to repair areas in the base of the channel. These areas are not precast panels but poured-in-place concrete. The areas had some surface spalling and general deterioration but there was not enough to warrant removing and pouring new sections. Quickset 20 was used to bring the damaged areas of concrete back to the existing elevation and fill in low spots that can more rapidly degrade when water is flowing over them. Some of the areas were so deteriorated that the depths were approaching 4-5 inches. In these places the Quickset 20 needed to be extended with pea gravel. Territory Unlimited, the contractor, liked the smooth texture and easy application of the Quickset 20. The color was also a close match to the existing concrete as Quickset dries to a nice light gray color.

After placing the Quickset 20, an ASTM C-309 approved curing compound was recommended. The contractor used US SPEC Maxcure Wax White. The use of a curing compound creates a film on the surface of the repair preventing the surface from drying out too quickly. A wax based cure stands up to weather well, making maxcure Wax White a good option for the job. The white pigment in the cure also keeps the surfaces cooler by reflecting light. After applying the cure that section was done and they moved onto the next one, repeating the placing, finishing and curing procedures until all the areas were repaired.