



SEA-TAC AIRPORT

Specifies Rapid Set® Cement Concrete For Full-Depth Runway and Apron Panel Replacements

Project Type:

Airport

Application:

Runway and apron panel replacement

Location:

Seattle, WA

Project Dates:

1994 – 1998

Project Owner:

Port of Seattle

Contractors:

SCI Concrete, Lydig Construction

Project Size:

12,000 cubic yards

Product:

Rapid Set® Cement

Seattle-Tacoma (SEA-TAC) International Airport is one of the busiest airports on the West Coast with approximately 1,200 aircraft movements daily. In 1994, Airport Engineers initiated a 4-year Runway and Apron Rehabilitation Project for Runway 16C, which handled 50 percent of the daily landing traffic. Based on the proven performance of Rapid Set® Cement Concrete in heavy-use pavement applications and harsh climates, it was chosen to replace 531 Runway 16C panels.

Project specifications called for 550 psi flexural strength and 4,930 psi compressive strength within 4 hours after placement. Slump requirements were 4 to 6 inches with an air content requirement of 3.5 to 5.5 percent. Existing runway panels were 20' x 20' x 14" and apron panels sized at 20' x 20' x 12". Both areas were being replaced with 18" thick panels.

Project challenges included tight construction timelines for replacement. Nighttime construction operations on the apron started at 8:00PM and runway operations started at 10:30PM with completion required by 6:30AM. Contractors faced a late penalty of \$5,000 per hour until the specified 550 psi flexural strength was achieved.

PROJECT PROFILE

SCI used Rapid Set Cement Concrete on the runway panels, batching and placing two 20' x 20' x 18" panels (22-1/2 cubic yards) per shift using ready mix trucks. Lydig Construction replaced two panels of the same volume per shift via volumetric mixing trucks. Both runway pavements and apron replacement panels were completed and opened on time every night.

Rapid Set Cement Concrete provided a rapid-setting, high performance concrete solution engineered to provide extended service life and significant savings in repair and replacement costs at SEA-TAC for many years to come.

CTS Cement Manufacturing Corporation manufactures Rapid Set professional-grade cement products for concrete repairs and new construction projects. Contractors, owners, engineers and architects choose Rapid Set to eliminate problems they have with other concrete repair materials, to save time and money, when superior durability is required and results need to be aesthetically pleasing. For more information about CTS Cement and Rapid Set, please visit www.CTScement.com.

ABOUT CTS CEMENT

