

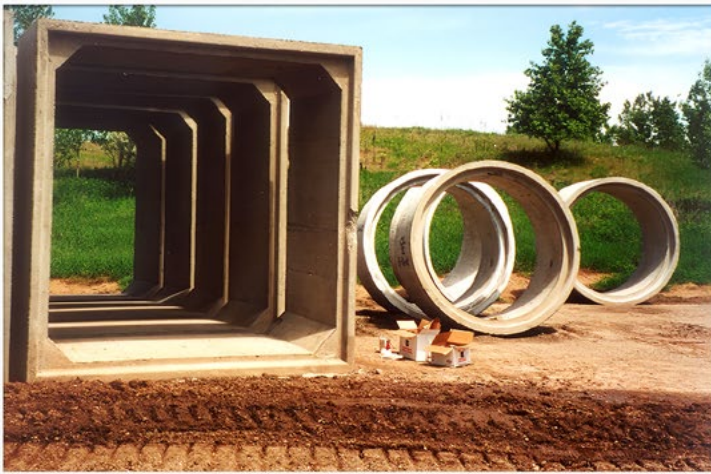
# PROJECT PROFILE

**ANY SIZE.  
ANY SHAPE.  
ANY HEIGHT OR DEPTH.**

**LOCATION: MINNEAPOLIS, MN | USA**

**PLACE: MINNEAPOLIS-ST. PAUL  
INTERNATIONAL AIRPORT**

## AIRPORT STORMWATER DRAINAGE CONTROL



### THE SITUATION:

In 2002 a stormwater drainage control system was installed at the Minneapolis – St. Paul International Airport. For this system, watertight precast concrete box culverts and circular concrete pipes were used to transport stormwater. To create an effective stormwater drainage control system, watertight joints are required; therefore, a sealant that has these watertight qualities was necessary.

### THE SOLUTION:

CS-102 was used in the joints of the box culverts and circular concrete pipes to provide watertight seals. Also, CS-212 was used on the exterior of the joints to keep soil from infiltrating the joints. CS-231 was also used on this project. CS-231 was used to create a watertight seal between concrete pipes and a cast-in-place concrete vertical shaft.

### SEALANT APPLICATION:

**BOX CULVERTS  
CONCRETE PIPE**

### APPLICABLE INDUSTRY STANDARDS:

**ASTM C-990  
ASTM 877 TYPE III**

### PRODUCTS USED:

**CS-102  
BUTYL RUBBER SEALANT**

**CS-212  
POLYOLEFIN BACK  
EXTERIOR JOINT WRAP**

**CS-231  
CONTROLLED EXPANSION  
WATERSTOP SEALANT**