



WILLETT HOFMANN  
& ASSOCIATES INC  
ENGINEERING ARCHITECTURE LAND SURVEYING

June 27, 2012

Rochelle Municipal Utilities  
P.O. Box 456  
Rochelle, Illinois 61068  
ATTN: Ms. Kathy Cooper  
Water/WRP Superintendent

Re: Investigation of Building Wall Joints  
Roof Repair and Replacement Project  
WHA#1178D11

Dear Kathy:

In response to your request, Willett, Hofmann & Associates, Inc. (WHA) has performed an on-site investigation of the precast concrete wall panels and joints at the Rochelle Water Reclamation Plant.

The buildings at the Water Reclamation Plant were constructed circa 1992 and consist of pre-cast concrete wall panels. The wall panels are typically 8-10 feet wide. During construction, at the joint between each wall panel, a joint filler material was placed, that served to provide a tight seal between each panel resisting air movement through the joint. Over the exterior face of the joint a sealant was applied to protect the joint filler material and serve as a water barrier to prevent water infiltration into the joint. It is believed that the existing joint sealant material remains from the original building construction. A typical performance warranty of a joint sealant material available today is 5 years.

It was observed that the existing joint sealant material between the wall panels at each building has deteriorated to the point of failure. This condition is consistent and uniform throughout all buildings at the Plant. Typically, the existing sealant material has cracked and is allowing water to infiltrate into the joint. In addition, with the sealant material cracked, the joint filler material becomes exposed to water which could cause brittleness, deterioration and failure of the joint filler material itself. The joint filler material is not a water barrier and therefore when exposed it will allow water infiltration into the building. When water penetrates into the joints of the precast concrete wall panels it is possible that freeze thaw action in the joints could cause cracking and other damage to the existing wall panels. In addition, water passing through the joint could damage interior finishes or electrical equipment that may be on the interior of the wall panels.

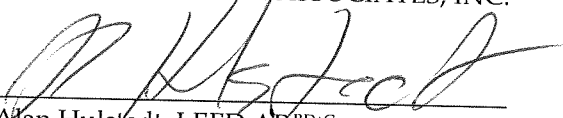
Mrs. Kathy Cooper  
Rochelle Municipal Utilities  
June 27, 2012  
Page 2 of 2

Based on our observations as stated above, it is our recommendation that the existing wall joint sealant material be removed and replaced with new joint sealant material.

Sincerely,

WILLETT, HOFMANN & ASSOCIATES, INC.

By

  
Alan Hulsted, LEED AP<sup>BD+C</sup>  
Architect Intern

AJH:bb

encl.

cc: Joanne Peters, RMU  
file