CASE STUDY: Lest We Forget

Site
Historic Buildings

Location
St. Paul, Minnesota
Hastings, Minnesota
Shakopee, Minnesota

Window Film
Crystal Elegance V58
Soft Horizons V33

Product Series
Neutral Series

SITUATION

Three nationally significant historical properties in Minnesota that include architecturally outstanding houses, outbuildings and grounds have all turned to solar control window film in an effort to help protect against the sun's damaging rays. In each instance, the goal is to protect and preserve valuable original furnishings that are an historic mark of the founding generations.

Alexander Ramsey House
In 1872, Alexander Ramsey, the first Governor of the Territory of Minnesota, with his wife, Anna, completed a Mansard style Victorian American home in St. Paul. The scale of the three-story Mansard style building is impressive: 15-foot ceilings on the first floor, a 300 square foot (plus bay) library, 360 square foot reception room, and an 800 square-foot grand parlor. Anna's interior scheme demonstrated her personal tastes and allegiance to major Victorian preoccupations: tradition and heritage, consumerism, and the desire to be fashionable, and the cult of domesticity. The house's elaborate furnishings stand witness to an historic period in Minnesota's development and they were fading fast.

William and Mary LeDuc House
The unaltered Gothic Revival architecture of this nineteenth century home establishes its national significance. William LeDuc, an attorney, entrepreneur, and distinguished Civil War officer, served as US Commissioner of Agriculture under President Rutherford B. Hayes. William and his wife Mary produced a stunningly landscaped architectural gem in a young river town on the Minnesota prairie. The house survives virtually unaltered from its appearance when it was completed in 1866. In 1970, the site was listed on the National Register of Historic Places.

Scott County Historical Society Home
The Scott County Historical Society is a county-wide professional institution for the management of historical resources of Scott County. The Society Home houses many important artifacts and collections which preserve and share the history of Scott County. Scott County, named for General Winfield Scott (1786-1866), General of the Army and apocryphally attributed to the Scott of "Great Scott," is an area of 375 square miles located to the southwest corner of Minneapolis-St Paul.

SOLUTION

The Alexander Ramsey House custodians sought out a Vista™ by LLumar® dealer who recommended and installed over one thousand square feet of Vista™ by LLumar® V58 Crystal Elegance to provide protection from fading. The film blocks more than 99 percent ultraviolet rays, helping protect against premature fading* and reduces solar heat by 23 percent. The sun's glare is also reduced by 33 percent to enable comfortable viewing. Over 800 square feet of clear solar control window film was installed in the William and Mary LeDuc House to help protect against a fading interior. Clear film was chosen so as to maintain the pristine appearance of the original glass, while blocking more than 99 percent of ultraviolet rays. The curator of the Scott County Historical Society Home was alarmed at the rate of deterioration of the Home's contents, so she "googled" her way to the Vista™ window film website - www.LLumar.com – and determined that she needed Vista V33 Soft Horizons to protect the irreplaceable possessions. She contacted the local Vista dealer who installed 315 square feet of the film which blocks more than 99 percent of the sun's ultraviolet light from penetrating the glass of the museum to help protect against premature fading* and reduces solar heat by 47 percent.

RESULT

All three Minnesota historical buildings are now "free at last," protected from the sun's damaging ultraviolet rays!

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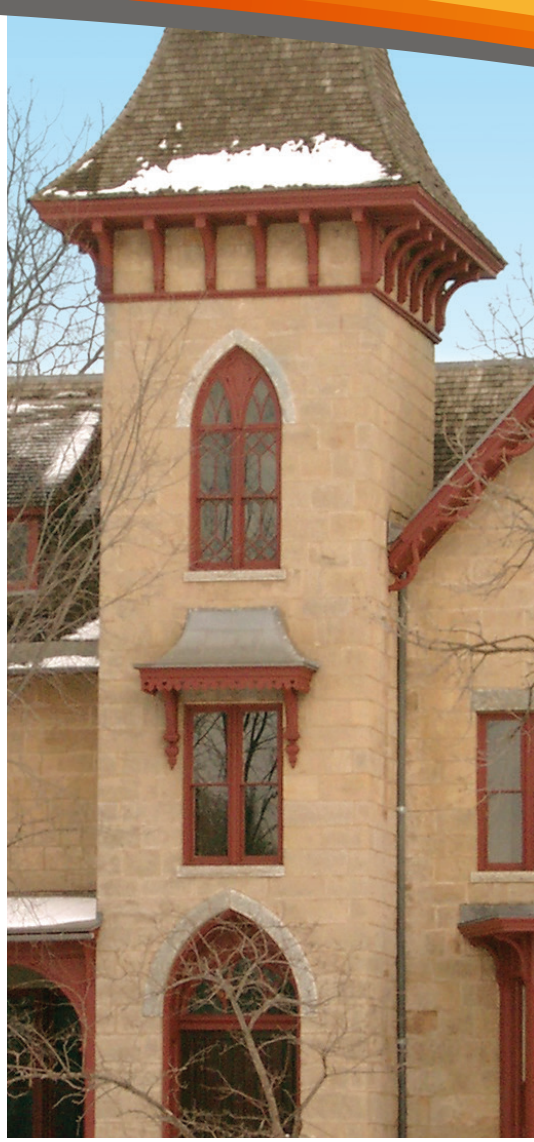

Performance Data

	% Total Solar Transmittance	% Total Solar Reflectance	% Total Solar Absorptance	% Visible Light Transmittance	% Visible Reflectance (exterior)	% Visible Reflectance (interior)	Winter U-value	Shading Coefficient	% Ultraviolet Ray Protection (wavelengths 280-380nm)	Emissivity	Solar Heat Gain Coefficient	% Total Solar Energy Rejected	Light-to-Solar Heat Gain Ratio (LSG)	% Summer Solar Heat Gain Reduction	% Winter Heat Loss Reduction	% Glare Reduction
Clear Glass	83	8	9	90	8	8	1.03	1.00	29	0.84	0.86	14	1.05	–	–	–
Neutral Series																
Crystal Elegance V58 SR CDF	55	10	35	60	11	9	1.07	0.76	>99	0.90	0.66	34	0.91	23	-3	33
Soft Horizons V33 SR CDF	31	19	50	34	21	18	1.05	0.53	>99	0.86	0.46	54	0.74	47	-1	62

EASTMAN

LLumar.com

The solar performance data reported for LLumar architectural window films was captured using the National Fenestration Rating Council's (NFRC) standard guidelines for window film solar performance measurement as measured on single pane, 1/8 inch (3 mm), clear glass. Reported values are taken from representative product samples and are subject to normal manufacturing variances. Actual performance will vary based on a number of factors, including glass type and properties. *Films do not eliminate fading—they reduce it. UV rays and heat are contributing factors to fading but other factors exist. For further information, see LLumar.com.download-library. (06/16) SP1085