

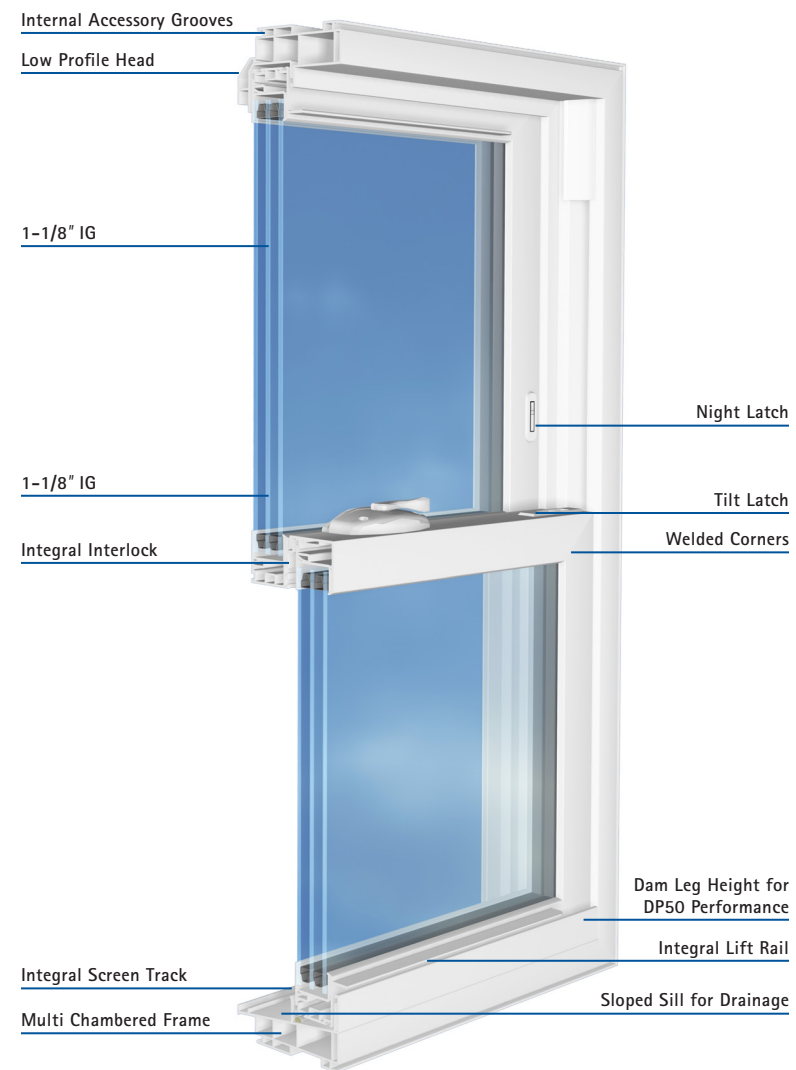


Crossover Window Case Study

VEKA Inc. is the North American division of VEKA AG one of the world's largest extruder of vinyl lineals to the residential and commercial window and door industry. In addition, we extrude fence, deck and handrail extrusions for fabricators and builders in the outdoor living products sector. VEKA employs more than 3,000 skilled personnel serving customers globally from 25 plants worldwide, with over 40 years of leadership helping fabricators deploy technologically advanced materials for residential and commercial building applications.

VEKA ECOLUTIONS SYSTEM:

The system that was chosen for use at Rocketts Landing is the VEKA Ecolutions DHA4 double hung. This system has a 3-1/4" frame depth. Its thermal properties are achieved by use of a R5, low-emissivity (double LowE), argon-filled, triple-pane glazing from Cardinal Industries, inserted into an all-welded, non conductive, weather resistant vinyl sash. PVC frame and sash profiles from VEKA are all multi-chambered to provide maximum dead air thermal performance and additional weld surface.



Villas at Rocketts Landing

The Villas at Rocketts Landing is the first solar community in Virginia, developed by Health-E Community Enterprises. The neighborhood of 45 single-family homes is located at Orleans and Williamsburg Ave. in the City of Richmond within walking distance of the Riverfront and the numerous restaurants located at Rocketts Landing.

The overall objective of the Health-E Home is to successfully optimize the integration of value engineering to provide high levels of comfort, indoor air quality, structured plumbing system for hot water delivery, and low energy usage enhanced by a balanced solar Photovoltaic (PV) array. This next generation of solar homes are designed to have a HERS rating of 4 and to save up to 96% of the energy of a similar sized conventional home, and will be certified by the Environments for Living BEYOND program. In addition, Health-E homes are priced for the middle income customer.



Case Study





VEKA's Ecolutions window system is shown with tilt latches for ease of cleaning, night latches for safety and ventilation, removable insect screen and dual locks at meeting rail.



Two mullied double hung windows allow for more light to enter the home while minimizing visual obstruction and using less framing material during installation.



The R5 triple pane option not only provides optimal insulation value, it also reduces sound transmission in the form of road noise from the nearby highway.



PROJECT DETAILS

Project Name:	The Villas at Rocketts Landing
Location:	Richmond, VA
Owner/ Developer:	Health-E Community Enterprises of Virginia
Construction Type:	New Construction
Products:	Triple Pane Double Hungs
Square Footage:	1,500 – 2268 Sq. ft. range

TECHNICAL SPECIFICATIONS

Window System:	Ecolutions DHA4 Windows, R5 Double LowE, Argon, Triple Pane
Color:	White
Glazing:	Cardinal LowE, 1-1/8" IG overall
Hardware:	Lawrence locks and keepers BSI Omega balances
Number of Units:	14 Windows, 2 Doors

Unique Requirements/Solutions

- In order to assist in satisfying the site developers vision for maximum energy efficiency VEKA Ecolutions, an R5 window was chosen. The value of the DHA4 vinyl window system is its convenience, functionality, style and excellent thermal rating.
- The humid environment of Richmond demanded a dimensionally stable window and VEKA vinyl provided the solution.
- Since a portion of the Villas at Rocketts Landing is immediately adjacent to the busy Williamsburg Avenue, reducing highway traffic noise is essential. To meet this requirement the triple pane IG was specified as it reduces sound transmission by 20% over a comparable dual pane sash.

Custom Vinyl Products, LLC began fabricating windows in May of 2000 as a division of Opton Inc. In September 2001, a group of local investors purchased the window division and continued cultivating relations with various building suppliers in the Tidewater market. A lot of time was spent talking to the builders in the market. As a result, the following problems were identified:

- Backorders/incomplete shipments
- Long lead times
- Lack of flexibility for change orders (excessive lead times)
- Not happy with the quality and look of vinyl windows in general
- Not able to deal with a manufacturer directly
- Field service issues not resolved in a timely manner

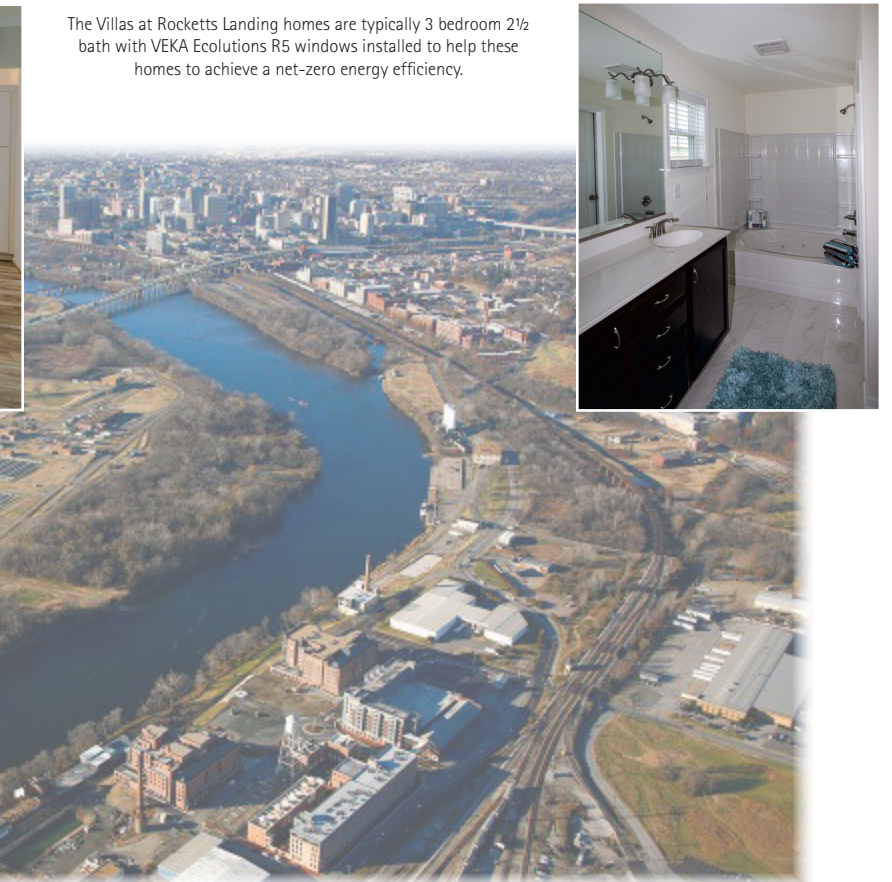
We took this information and began formulating a game plan for CVP. We selected the highest-grade vinyl extrusion we could find.

The vinyl is thicker and heavier than vinyl used by many of our competitors. We fabricate the window from start to finish in our local facility, enabling CVP to provide the highest level of customer service. Our service technicians are on staff and can respond to most field service issues within 48 hours.

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The Villas at Rocketts Landing homes are typically 3 bedroom 2 1/2 bath with VEKA Ecolutions R5 windows installed to help these homes to achieve a net-zero energy efficiency.



The mission of Health-E Community Enterprises of Virginia, Inc. is to link energy conservation, resource efficiency and healthy house technology, into an affordable home package. Jay Epstein, President of HEC-VA feels that the "Health-E" home demonstrates that it is possible to use the cost savings that accrues from innovative new construction technology and design to offset the added cost of construction. The success of the initial projects has led to the determination to standardize this building process and to use the

process in all current and future subdivisions. Health-E Community has since expanded its building concept to encompass town homes and larger mid-sized homes.

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