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White Springs Farm

As the economy rebounds and new housing developments start breaking ground again, old plans get dusted off and new bids on original specifications are reviewed. This was the case in early 2012 when Toll Brothers, Inc. first asked Pickering Valley Landscape, Inc (PVL) to look at a sound wall structural plan that had been submitted by the previous land owner and approved by the township for construction in 2007.



PROJECT NAME AND LOCATION:

White Springs Farms
Upper Providence Township,
Montgomery County, Pa

OWNER: Toll Brothers, Inc.

PRODUCT: AB Fence

PROJECT SIZE: 15,110 square feet

LOCAL ENGINEER: Downingtown
Engineering Consultants (DEC)

WALL INSTALLER: Pickering Valley
Landscape, Inc. (PLV)

ALLAN BLOCK MANUFACTURER
Fizzano Brothers, Philadelphia, PA

PLAN

The original 2007 plans that were approved by the township, called for a precast wall system manufactured and shipped from Tennessee to be installed and stained after construction on site with a 3 color blend. The new plan needed a product that was more cost effective and locally available and had aesthetics equal to or better than the approved precast option. Toll Brothers had an easy decision once they saw Allan Block's AB Fence Product.

“When we first looked at the structural plan and started to understand the components and installation process we quickly realized it was a precast system developed to be transported over long distances with little thought to the extra work involved in installation.” Remarks Jon Calle, GM for PVL. “If you can get the right concrete products and systems close to the job with good support why add \$1,000s of dollars in extra shipping costs to the job?” The following cost comparison made the decision easy.

	Precast System	AB Fence
# Piers	370	117
Color Cost	\$90,660	Included
Installation Options	1	Several
Cost Per SF Installed	\$32-\$40	*\$18-\$25

*Wall was 1850 LF and 15,110 SF for 8.2' average height

PVL partnered with local concrete producer Fizzano Bros. Inc, licensed manufacturer of Allan Block Corporation’s AB Fence System. The AB Fence is a masonry dry cast mortar-less sound wall system consisting of posts, panels, and cap units. Toll Brothers specifies the available Ashlar Pattern wall panels, made up of four different sized block units, giving the panels more dimension and character than the standard running - bond single block unit look. An added benefit of the AB Fence is the ability to be made with blended colors into the materials as it is manufactured rather than staining post construction as is standard for precast products.



DESIGN

Downingtown Engineering Consultants (DEC) were contracted to design the sound wall but had never designed an Allan Block Fence before. The Allan Block Engineering Department provided all the support they needed to feel comfortable with their first design. The design of the system is very straightforward in that each panel transfers wind load laterally to the structural posts down into the cantilever footings. DEC determined the local wind pressure design requirements and set the panel size, based on the required wall height, to maximize the post spacing. Each post had at least four #5 rebars cast into the cores and each bond beam has one continuous horizontal #4 rebar with each block having at least one 9

ga wire stirrup to provide added shear capacity. The construction drawings were produced using drawing templates for Allan Block or by using the Allan Block AutoCAD AB Fence drawing macro.

BUILD

PVL followed the installation guidelines provided in the Allan Block literature and the entire process went smoothly. After getting all the utilities marked, they prepared for drilling the post footings. Since the Allan Block Fence System is modular, based on manufactured lengths of each block, Pickering took great care in the hole placement to eliminate any unnecessary cutting of block units. They also used the suggested spacing jig that made the rebar placement simple.

While part of the crew was preparing the foundation, another crew was precasting two-course bond beams to speed the installation process. Once the footings were cast and rebar placed they were off to the races placing the precasted bond



beams and hand laying the dry stacked courses. Pickering's eight man crew were placing up to 25 bond beam and 480 square feet of product each day and completed the entire 1850 ft sound wall in just 40 work days.

PVL handled the entire construction process from start to finish including permitting, PENNDot easement approvals, land clearing and E&S, Pier drilling and pouring, AB Fence System installation, swale and drainage outlets.

“Allan Block Corporation’s technical support and guidance was terrific, as usual. The AB Engineering Department assisted the local engineer with their designs, they had personnel in our plant the first few days of manufacturing, and they sent a corporate engineer to work with PVL’s Field Superintendent and Project Foreman for a day building a full scale sample wall prior to construction.” John Fizzano, VP of Fizzano Brothers.