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Project Summary

University of Arkansas

To say that football is a way of life in the south is an understatement. Consider the University of Arkansas Razorbacks - They have had a football team since 1894 and football is an important part of the university and their culture. In proof of their dedication and as part of their facility master plan for Razorback Athletics, the university is building new football operational facilities to support their team. The AB Fence system was preferred for the project because it was a cost effective and aesthetically pleasing solution and the university selected it to become part of their master plan.



Plan

In order to construct the new operational building, it was decided to move the outdoor practice fields to the south side of the Walker Family Training Center. Moving large football fields around on a property is no small task when you consider the space you have to work with. Polk Stanley Wilcox Architects considered the space and decided to build the football practice fields and the parking lot in the same location.



The West practice field would be constructed on grade and the East practice field would be elevated 14 feet (4.3 m) above the surrounding street level. A fence system was needed at the edges of the practice fields for privacy, security, and safety. For the University of Arkansas fence, Polk Stanley Wilcox Architects also needed to incorporate the design of the garage structure with the design of a fence above so the look of the facility would

match the schools master plan. It was decided that custom Razorback pads would be attached to the interior side of the wall to protect players. A unique aspect for the construction of the Razorbacks fence was decided upon that would use brick veneer around the columns between the Allan Block fence post and panels. This brick veneer would bring a cohesive look to the new construction and tie it into the look of the university's campus. Allan Block Ashlar fence posts and panels fill the space between the large brick columns to finish the look.

Design

Due to the overall height of the fence system above grade, careful attention was paid to the effect of wind load on the layout of the system with regard to bond beam quantity and spacing of end posts. The layout of the system was optimized with bond beams located at the top, middle, and bottom of the fence height and end posts spaced at approximately 14 ft. (4.3 m) max. Although a portion of the fence was constructed on grade and a portion on elevated concrete deck, design procedures remained the same with special consideration given only to the means of anchoring the end posts.

For the portion of fence constructed on the elevated concrete deck, the deck served as both the leveling pad and primary support at each end post. A unique design feature had the standard footings modified when they were on top of the parking structure as there was no room for standard depth post footings, so they were designed as L shaped cantilevers. The fence posts were doweled to post-tensioned concrete beams with hooked dowels turned toward the interior of the structure due to the fence's proximity to the edge of the concrete deck. The engineers at Kenneth Jones & Associates, Inc. designed the perimeter beam to carry not only the loads from the elevated field, but also the overturning moment force from the cantilevered AB Fence system. This alternate fence footing design solved the challenge of building AB Fence for a non-standard footing application.

Build

For the Razorbacks fence, the architect worked with Midwest Block and Brick to select their Palomino Grey colored Ashlar pattern to give the fence a distinctive look that complements the rest of the campus. They assisted the contractor to get an accurate block count for the project by using the AB Estimating Tool. Once the construction was approved they were able to arrange the block patterns to match the panel spacing dictated by the cast in place brick columns by using the AutoCAD Fence Macro to create detailed panel layouts. The ability to have a detailed pattern and know exactly which blocks would go where, saved the contractor on installation time. In addition, minimal extra block would be required on site since the estimate could be narrowed down so precisely. After an initial field consultation to demonstrate how quickly and easily the panels are constructed, the fence went up in record time and the project was a beautiful success!

