

# As seen in...



## Union County Vocational School

What do you do when you want to add an addition to a building, but find the plans call for a full basement 15 feet lower than your existing structure? That's the situation that the Union County Vocational School in Scotch Plains, New Jersey found itself.

### The Situation

The existing school was built on a slab grade. They were about to add on to the school and the architect's new design called for an addition with a full depth basement 15 feet deeper than the original structure. This would in the end require that a 3-foot wall be extended 15 feet. The school had contacted several companies in the area, none of which were willing to take on such an unusual job or the inherent liability. They needed more space, had the vision and the plans, but no way to carry them out. Of course, time was also of the essence, as the school couldn't accommodate students during the expansion.

### The Solution

After assessing the situation, it was determined that the only course of action would be to install 56 Ram Jack commercial brackets with deep driven steel piers. Ram Jack installed custom-built 16 foot guide sleeves and 2-7/8" deep driven powder coated carbon steel pipe to load the bearing strata 40 feet below grade, thus stabilizing the wall. Two feet below the brackets, they installed the first row of tiebacks every 4 feet, resulting in 3 tiebacks per each driver pier. Essentially, they dug out in 5-foot increments, put tiebacks in and attached wire with about 8 inches of shotcrete underneath, tied everything together, effectively building one wall all the way around, encasing all of the piers.

Because the soil was a fill, this was the only way to bring the wall down the required 15 feet. The only alternative for the Vocational School would have been to do without the basement and build on a slab once again.

### Lessons Learned

It is always important to have the right tool for the job. In this case, Ram Jack Foundation Solutions had to devise a solution and custom build the tools to ensure that this was the case. It is always gratifying to see that any type of bracket can be built for the most difficult installation, while still accomplishing the job quickly, with little or no down time.

### Conclusion

The unusual job resulted in the use of 224 piers and took only 20 days to complete. In the end, the Union County Vocational School wound up with a new addition, complete with a basement that will serve them well for years to come.

### For more information, contact:

*Ram Jack of the Tri-States, Inc.*

*Toll Free: 800-852-1588*

*Email: ramjacktri@aol.com*

*Website: www.ramjacktri.com*

*Ram Jack Systems Distribution*

*Toll Free: 888-332-9909*

*Email: info@ramjack.com*

*Website: www.ramjack.com*

