

# DANBRO Distributors

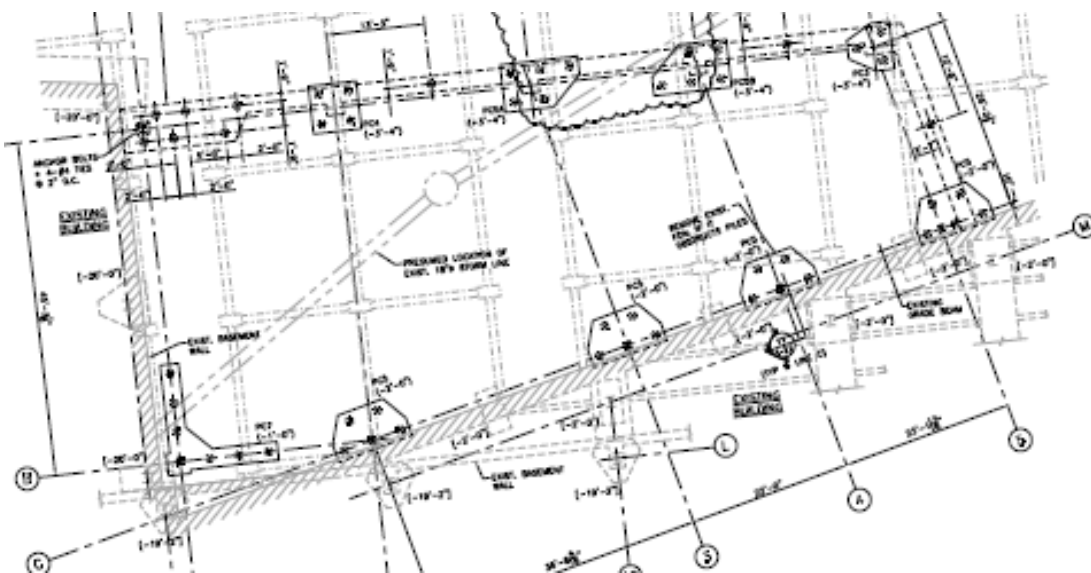
3700 South 26th Street  
Philadelphia, PA 19145  
Toll Free: 866-432-6276  
Tel: 215-271-7700  
Fax: 215-271-7701  
Email: [Info@danbro.com](mailto:Info@danbro.com)  
Web: [www.danbro.com](http://www.danbro.com)

Some Things are Better Left to Chance™



## DANBRO CASE HISTORY: WELLS FARGO REEBOK TRAINING CENTER NEW CONSTRUCTION ADDITION PHILADELPHIA, PA

**WELLS FARGO  
CENTER**



**OBJECTIVE:**  
TO CONSTRUCT A NEW FOUNDATION SYSTEM FOR THE TRAINING CENTER'S ADDITION. CHANCE HELICAL PILES WERE SELECTED BASED ON THE CLOSE PROXIMITY OF THE ARENA AND VIBRATORY CONCERNS.



## CHANCE HELICAL PILE:

- # OF PILES = 53
- SS175 WITH 8", 10" & 12"
- DESIGN LOAD = 40 KIPS
- DESIGN UPLIFT = -17.5 KIPS
- TORQUE REQ'D = 8000 FT-LBS
- REQ'D LENGTH = 45'

## OBSTACLES DEFEATED:

THE UNDERLINE STRATUM ACCORDING TO THE BORING LOGS WERE A FILL THAT CONSISTED OF VARIOUS FILL MATERIAL FROM THE OLD JFK STADIUM, THEN A SOFTER SAND FOLLOWED BY THE UNDERLYING DENSE BEARING STRATUM SANDS AROUND 38 FEET. MOST OF THE PILES ON ONE SIDE OF THE ADDITION WERE INSTALLED TO THE PROJECT REQUIREMENTS. HOWEVER, OTHER PILES WERE ADVANCED BEYOND BEARING LENGTH TO DEPTHS OF 90 FEET PLUS BUT NOT ACHIEVING THE REQUIRED TORQUE. THEREFORE, A NUMBER OF PILES WERE LOAD TESTED TO ASTM D1143 TESTING STANDARDS. THE RESULTS CONCLUDED THAT THE TORQUE-TO-CAPACITY RATING OF THE PILES WERE OVER AND ABOVE THE EMPIRICAL TORQUE RATING FACTOR,  $K_t$ . THIS VERIFIED THE REQUIRED CAPACITY OF THE PILE WHILE LOWERING THE REQUIRED TORQUE. THE PILES WERE INSTALLED TO THE REQUIRED LENGTH AT THE NEW TORQUE VALUE WHILE MAINTAINING THE DESIGN LOADS. THE CLIENT SAVED THOUSANDS OF DOLLARS ON MATERIAL AND INSTALLATION TIME.



## AUTHOR:

STEVE GENCORELLI, P.E.  
DANBRO DISTRIBUTORS