

## CASE HISTORY

SITE PREPARATION

NEW CONSTRUCTION

REMEDIAL REPAIR

HELICAL PULLDOWN® MICROPILE

ATLAS RESISTANCE® PIERS

»» **HELICAL UNDERPINNING**

EARTH RETENTION

RETAINING WALLS

HELICAL TIEBACK

»» **SOIL SCREW®**

PIPELINE STABILIZATION

TELECOM/SUBSTATION

UTILITY/SOLAR

CHANCE® DISTRIBUTOR

**WALDER FOUNDATION  
PRODUCTS LLC**  
Ashland, VA

CHANCE® CERTIFIED  
INSTALLER

**STABLE FOUNDATIONS LLC**  
Ashland, VA

PROJECT ENGINEER

**STRUCTURAL ENGINEERING  
CONCEPTS**  
Midlothian, VA

GENERAL CONTRACTOR

**J. E. BURTON CONSTRUCTION**  
Danville, VA

Hubbell Power Systems, Inc. is the world's leading helical pile/anchor manufacturer. The CHANCE® brand offers a technically advanced, cost effective solution for the Civil Construction and Electric Utility and Telecommunications markets.

## HELICAL FOUNDATION SOLUTIONS

# North Main Baptist Church



“ A total of 17 underpinning brackets were installed on a 5 ft. center along the existing footing for support. All of the piles were taken to a 40 kip ultimate load averaging 20 ft. below the existing footer and at least 7 ft. below the new sub-grade. ”

### PROJECT:

An addition onto an existing church located in Danville, VA.

### BACKGROUND:

Danville, known as "The City of Churches", has more churches per square mile than any other city in the state of Virginia. North Main Baptist Church in Danville, VA currently serves a congregation of 400+ people, and they were in need of more classroom space to serve their congregation.

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**THE PROBLEM:**

In order to utilize as much space as possible, the North Main Baptist Church requested the construction of a basement in the addition to the classrooms. According to the plans, the basement would be built against the existing building, at grade structure, understanding that the original building was built without a basement. Therefore, the challenge was to provide vertical support for the existing church as well as earth support under the footing to the new sub-grade. The existing footings were stepped to follow the existing ground with earth cuts up to 13 ft. deep.

**THE SOLUTION:**

Stable Foundation awarded the project to J. E. Burton Construction. They used the CHANCE® C150-0121 Underpinning Bracket supported on RS2875.203 CHANCE Helical Piles. A total of 17 underpinning brackets were installed

on a 5 ft. center along the existing footing for support. All of the piles were taken to a 40 kip ultimate load averaging 20 ft. below the existing footer and at least 7 ft. below the new sub-grade.

Once the footing was supported, 38 CHANCE Soil Screws were installed on a 15 degree batter on a 4 ft. vertical by 5 ft. horizontal grid pattern. From there, 6 in. by 6 in. welded wire fabric and 6 in. of shotcrete were applied to retain the earth in a top to bottom application. By combining CHANCE Underpinning and CHANCE Soil Screw Systems, the basement was built as planned against the existing building. The installation was completed by five workers in five days, on time, and on budget by J. E. Burton Construction Company.