Case 249. 50-year-old male carpenter for a home renovation company died when a 6-foot-long by 9-foot-high by 20-inch-wide masonry large boulders/fieldstone wall located in the basement of a 100-year-old home collapsed and fell onto him.

A 50-year-old male carpenter for a home renovation company died when a 6-foot-long by 9-foot-high by 20-inch-wide masonry large boulders/fieldstone wall located in the basement of a 100-year-old home collapsed and fell onto him. The decedent and his coworkers were restoring the home's foundation. The corner of the home was being supported by one steel beam (an engineer specified two beams). MIOSHA could not determine if the placement of the steel beam or beams was a factor in the incident. The crew had previously removed the basement's concrete floor and approximately eight inches of sand to permit concrete forms (2x8's, 2x10's) to be placed under the masonry walls. Earlier in the day, decedent and his two coworkers had placed two plywood forms under other basement walls. Previously, the crew noted that one of the other stone basement walls had a ¼-inch crack. The workers measured the crack and reported it to the site superintendent who indicated the workers should monitor the wall's condition to determine if the crack dimension changed. The workers checked on the crack several times on a daily basis and the crack's dimension did not change. Also that morning, a bottom section of an interior wall had broken loose and fell as they were forming a footing. The crew moved to the wall involved in the incident to place a new form. They pounded a 28-inch-wide by 64-inch-long piece of plywood approximately 4 inches deep into the sand next to the wall. The decedent began to dig the sand away so they could place the foundation form under the wall. As he was digging the sand away, the wall collapsed and buried him under its broken pieces. The wall also struck another employee causing an ankle injury. Other individuals on-site heard the crash of the wall falling and assisted in removing the wall pieces from the decedent. CPR was not initiated because no one knew CPR. Approximately five minutes later, emergency response arrived. The decedent was transported to a local hospital where he was declared dead. The wall was not braced while the decedent and his coworkers were working near it.

MIOSHA Construction Safety and Health Division issued the following Serious citations at the conclusion of its investigation.

SERIOUS: GENERAL RULES, PART 1, RULE 114(2)(b)

> No instructions provided to each employee regarding the operation procedures, hazards, and safeguards of tools and equipment when necessary to perform the job.
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> There were not any written procedures in place for underpinning constructions. The employees did not brace or support the existing stone wall before they pounded down a 28-inch-wide by 64-inch-long piece of plywood approximately 4 inches into the sand next to the stone wall. They began to dig the sand away for underpinning when the 6-foot-long by 9-foot-high by 20-inch-wide wall fell over crushing one employee and injuring another.

SERIOUS: EXCAVATION, TRENCHING, AND SHORING, PART 9, RULE 932(1)

A structure that is adjacent to an excavation or trench below the level of the base or footing of any foundation or retaining wall was not protected against settlement, lateral movement, undermining, or washout.

The employees did not brace or support the existing stone wall before they pounded down a 28-inch-wide by 64-inch-long piece of plywood approximately 4 inches into the sand next to the stone wall. They began to dig the sand away for underpinning when the 6-foot-long by 9-foot-high by 20-inch-wide wall fell over crushing one employee and injuring another.

SERIOUS: DEMOLITION, PART 20, RULE 2031(1)(a)

It was not ensured that all of the following were done before the start of a demolition operation:

(a) An engineering survey of the structure and equipment is conducted by a competent person knowledgeable in demolition to determine all of the following:
    (i) The condition of the foundation, roof, walls, and floors.
    (ii) Whether any adjacent structure will be affected by the demolition.
    (iii) The utility service entering the building.
    (iv) Any other conditions and equipment affecting the safety of an employee.—

A demolition survey was not performed before the employees removed the concrete floor and approximately 6 inches of sand that was helping support the bottom of the existing 6-foot-long by 9-foot-high by 20-inch-wide stone wall in the basement of the house that was being renovated.