

Lessons Learned



Date: July 01, 2021

Region: Denver

Project: Larimer County Jail

Incident Title: Near Miss – Core Drilling with Embedment

Summary

A sub of Apollo was planning a core drill for a 6" domestic water hole in the 2nd floor mechanical room. A layout was followed, highlighting where to drill, and a GPR scan was performed. The GPR scan showed embedment's in the wall, however, drilling was still performed. Roughly 3" into the wall, a spark was seen by the driller and though the bit was instantly removed, conduit line had been penetrated, resulting in a loss of power to existing air handling units within the facility.



What Went Right?

- GPR scanning was completed to identify embedment's.
- No one was injured or electrocuted.
- Incident was reported immediately to the supervisor.

What Went Wrong?

- Thou GRP scanning was completed, and embedment's were clearly shown, drilling still occurred.
- Decision to drill was based on assumption that object was safe to cut.
- Protocol for what to do when GPR scans show unknown objects was not understood.

Lessons Learned

- **When drilling into CMU wall, scanning needs to be completed and layouts must be adjusted depending on the scan results, based protocol established and understood by all involved.**
- **All embedment's seen on any scan need to be identified as something that can be safely cut.**
- **Even rebar, should not be cut, unless structural integrity is not compromised by doing so.**
- **Possible conduit or electrical must be positively ruled out before any drilling or cutting takes place.**