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**Market:** Municipal

**Client:** JBC Planning & Engineering

**Owner:** Jacksonville Sheriff's Office

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## Project Profile

This project consisted of relocating a portion of the existing berm 16 feet to the north towards an existing pond. The berm has a height of 20 feet with a front face slope of 2:1 Horizontal:Vertical and a back face slope of 1.5:1. The berm embankment has a 3.5-foot thick by 10-foot high ballistic sand layer on the front slope for bullets to impact the embankment. MAE's scope of work included performing Standard Penetration Test (SPT) borings within the area of the new embankment. Hand auger borings were located within the existing berm soils that will be relocated to form the new berm. Muck probes were located in the existing stormwater pond adjacent to the proposed berm relocation area to measure the thickness of the soft bottom sediments. A settlement analysis was performed to estimate the magnitude of the new embankment settlement. In addition, the existing pond slope was analyzed for stability to verify the appropriate factor of safety was achieved based on the proximity of the new embankment.

**Services:** Geotechnical Engineering

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