

A proposed 22' tall Gravix retaining wall in a cut situation was proposed for roadway widening on Interstate North Parkway in Marietta, Georgia. An existing manhole used to collect storm water pipes from adjacent parking lots was positioned directly behind the cut retaining wall. Also, the manhole was to be extended vertically to serve as a drop inlet at the top for the drainage swale proposed behind the retaining wall.

During the design of the Gravix retaining wall, the 6.0 feet diameter manhole's position could not change in plan view but only extended vertically. Therefore, the Gravix stems were laid out geometrically to be installed on either side of the 6 feet diameter manhole. However, as the wall construction approached the manhole, it was discovered a survey bust or error in layout resulted in the manhole being located directly at a stem. To allow the manhole to remain and the Gravix retaining wall to continue construction, the design engineer developed a detail to span the Gravix wall across the front of the manhole. The Gravix stems on both sides of the manhole were increased in depth to allow a beam to span across the manhole to spread the horizontal load and meet stability requirements.

Below are the details provided by the design engineer as well as photographs taken during the construction. For additional information and questions concerning this application and the solution provided, please contact the engineering department at Earth Wall Products, LLC.

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