Unisphere

The 210,000 SF, elliptical Unisphere developed by local biotech company United Therapeutics to manage the production of transplantable organs, is the largest net zero site in the U.S. Unisphere offers numerous innovative solutions and new design applications for achieving carbon neutral goals including: a concrete underground labyrinth for passive heating and cooling, a geo-exchange system, an active beam system, a store water heat rejection system, a pool that doubles as a heat sink, daylight harvesting, glazing and an automated natural ventilation strategy. The building generates 15% more renewable energy than it consumes and uses 50% less energy than a traditional building of comparable size. Because of the success of Unisphere, the state of Maryland now allows future projects to install similar underground geo-exchange systems. Daily monitoring and measurement of building operations allow for ongoing research and evaluation of building technology and performance that will provide valuable insights for future development.