Ductile Iron Piles (DIPs) are a small-diameter, low-vibration driven pile system often used as a high-value alternative to micropiles, helical piles and other traditional piling systems. The system uses modular, pre-fabricated, high-strength ductile iron pipes ranging in diameter from 98 mm (3.9 in) to 170 mm (6.7 in) to develop working capacities ranging between 25 and 100 tons depending on soil conditions. DIPs are installed using an excavator-mounted hydraulic hammer fitted with a special drive adapter to drive the pile into the ground using a combination of excavator crowd force and the percussive hammer energy. DIPs are prefabricated in typical lengths of 5 meters (16.4 ft) per pile and employ a plug & drive connection system that allows for rapid pile connections in the field and accommodates variable pile lengths without additional equipment or splicing. Although driven, the high frequency hydraulic hammer results in high frequency, low vibration levels (typ less than 1 ips).

Ductile Iron Pile systems are designed to resist loads through either end-bearing on competent soils/rock or frictional resistance along the roughened pile shaft or within an exterior grouted bond zone. The design and installation of Ductile Iron Pile systems can be provided by most qualified geotechnical contractors. Please contact your local DuroTerra representative (info@duroterra.com) for capacity options, project feasibility and a list of qualified DIP installers.