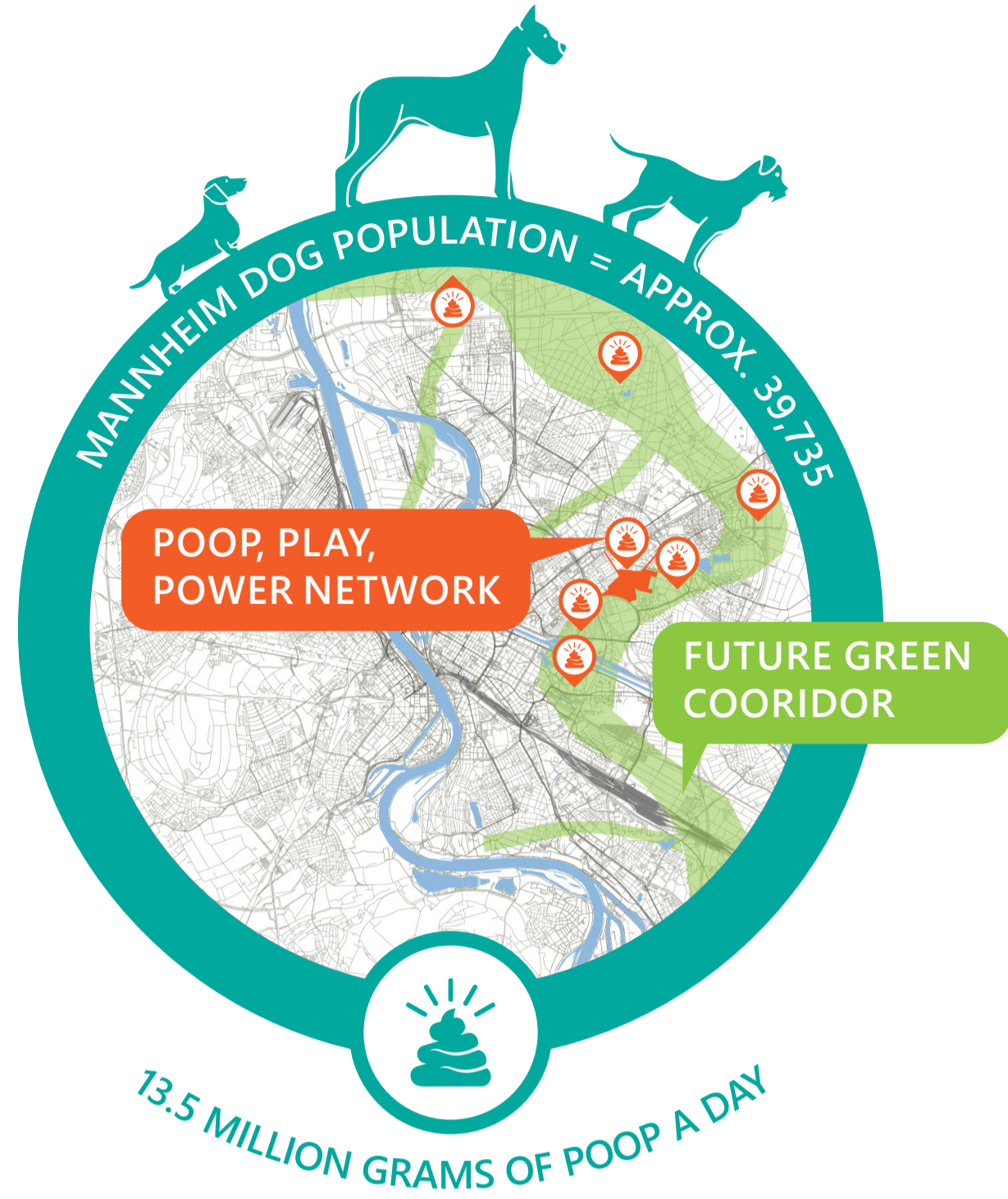


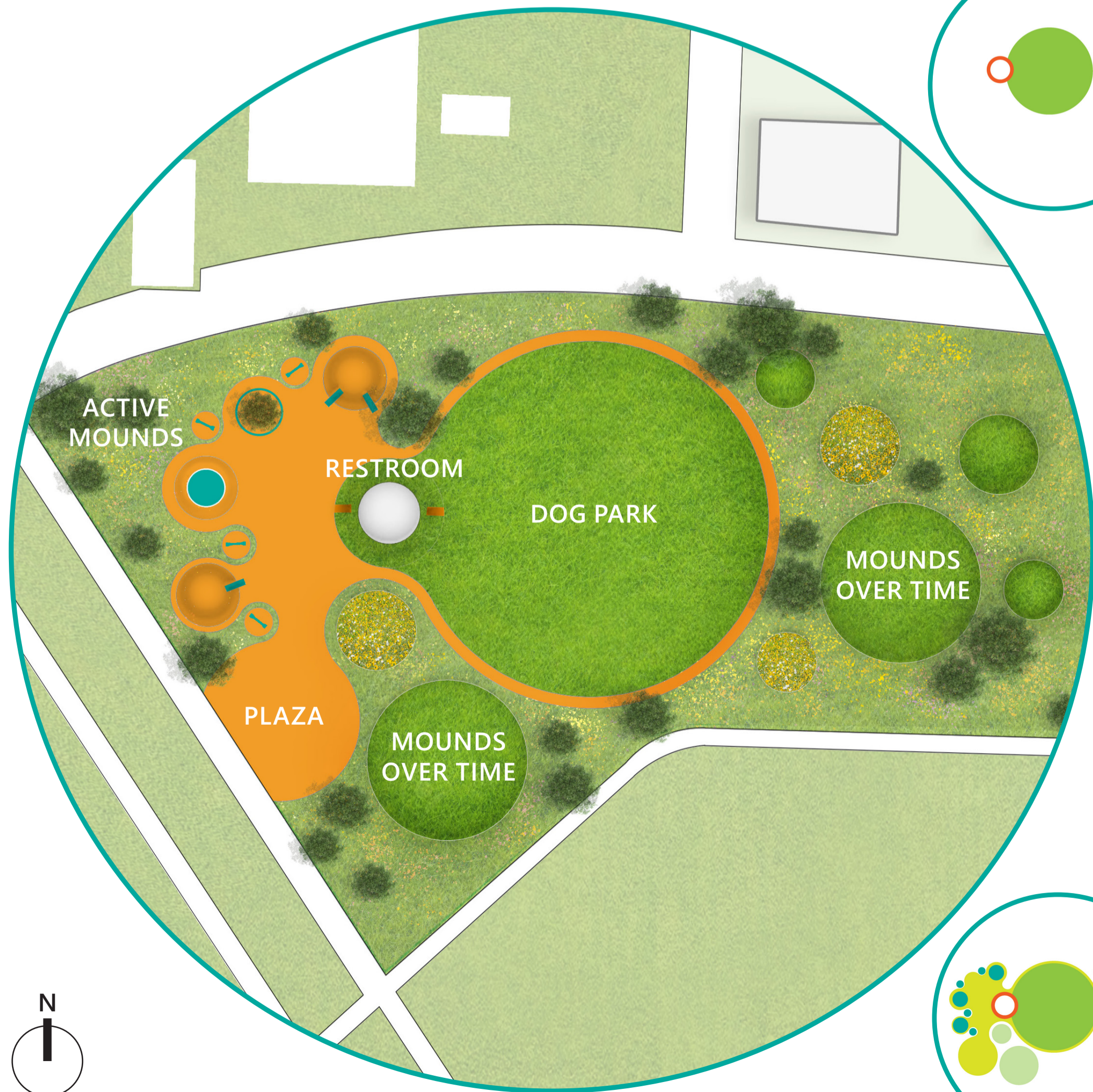
POOP, PLAY, POWER!



POWERFUL POOP

As much as we love our fur babies, we must admit dog poop causes serious environmental issues. Besides unpleasant sight and smell, harmful pathogens can be found in dog poop and when it is left unpicked it becomes a source of water pollution. Some pet parents may argue that they have done their part in protecting the environment by picking up after their pets. Although it may have helped preventing the dog waste getting washed directly to a local waterway, all those plastic bag goes into a trash bin will eventually end up in a landfill. This still leads to uncontrolled release of methane gas. Methane gas is a harmful greenhouse gas and is known to be 30-70 times more potent than carbon dioxide. In the context of this project, 4,500 residents from the new development are expected to have a dog population of 585. If the dog waste is left untreated, approximately 200 kg of dog poop would enter the landfill each day and approximately 47, 500 cubic meters of biogas would be released into the atmosphere each year.

The project aims to collect all dog waste anticipated from the new development and human waste from park visitors and will transform poop into renewable energy, capturing 47, 500 cubic meters of biogas per year to create approximately 100 MWh of electricity per year. By including biodegradable household waste from the new development, our annual electricity production can reach 300 MWh. The project will transform current perspectives on poop as a problem to poop as a solution and a resource, by creating affordable and clean energy, support clean water and sanitation, fostering a sustainable community, and practicing responsible consumption and production. Poop, play, power is a placemaking solution that combines a dog park, a restroom with a waste digestion structure, and playground to generate renewable energy, to engage landscape as land art, and to create a place to foster community and educate the next generation about energy consumption.



POOP

The public restroom is the central node of the design and renewable energy process. The dog park provides a place for residents of the new development to walk their dogs and dispose the dog poop in the digestion tank.

PLAY

The active mounds are equipped with play equipment designed with piezoelectric sensors to create energy from kinetic motion. To harvest the kinetic energy, visitors are encouraged to play on the active mounds.

POWER

A generator is connected to the digester and transforms biogas into electricity to power park lights, light shows, and other park features to meet an equal input/output of energy.

PLACE

The three elements together create a space for residents of the new development to play, contribute, and socialize. A plaza space is created using the in between spaces between mounds and allows opportunities to host local events where residents can bring and sell or trade excess produce or flowers from their Kleingarten.



As visitors and poop increases, methane gas slowly inflates the dome.



Art projection lights up the dome at night, as children bounce to create kinetic energy.