

EXHIBIT 5
Homestead Acres
Contract Zone Agreement

Roundabout Design

Per your request, we have further evaluated the proposed roundabout as part of the proposed Homestead Farms Subdivision in Falmouth Maine. Our understanding is that the roundabout will serve as both traffic management for two of the proposed entrances and as a traffic calming measure for traffic entering and exiting the subdivision.

In general, roundabouts are a safer intersection control alternative due to the reduction of vehicle speeds and vehicle conflict points. The reduction in speeds is accomplished by deflecting traffic with the splitter islands on each approach and by using small travel radii entering the roundabout. Typically, the smaller the roundabout the smaller the travel radii and thus the slower vehicles travel. A roundabout with an 80' curb to curb (also known as Inscribed) diameter will have a circulating speed of about 12 miles per hour where roundabouts with 100' and 120' inscribed diameters will have approximate circulating speeds of 15 miles per hour and 18 miles per hour respectively.

The design of a roundabout can limit what type of vehicles can access and use the roundabout and the design vehicle normally drives the size of the roundabout. It is possible to have urban compact roundabouts with an inscribed diameter of 80' if the roundabout has a very small amount of expected truck traffic or if there are reasonable alternative routes that avoid the roundabout. An inscribed diameter of 100' is common for urban compact roundabouts that have a design vehicle of a large school bus or a larger fire truck. Larger trucks such as WB-62 and WB-67 interstate semi-trailers require inscribed diameters of 120' to 130'.

The attached concept shows what a common 100' inscribed diameter urban compact roundabout might look like at the proposed intersection. The concept layout was based on a design vehicle of a 100' ladder fire truck and a large school bus was also confirmed to be able to navigate the roundabout.

The actual size of the roundabout will be determine during the Planning Board approval process and may vary from an inscribed diameter of 80 to 120 feet.

