

February 28, 2023

Donny Hicks
CEcD, Executive Director
Gaston County EDC
620 North Main Street
Belmont, NC 28012

RE: **Apple Creek Parkway Design Speed**

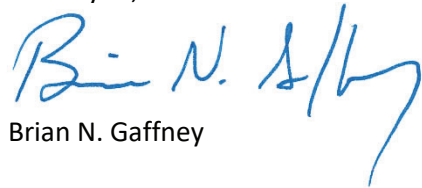
Mr. Hicks:

The purpose of this letter is to provide information related to the design speed criteria utilized for Apple Creek Parkway (noted as -L- Applewood RD. in the roadway plans) as part of the Apple Creek Corporate Park plans.

- Design Speed = 40 MPH, Posted Speed = 35 MPH
- Max 4% Superelevation (minimum radius 533')
 - Curve at PI 74+89.81 is below this radius at 350', but it is a stop condition and superelevation has to rotate to meet NC 279.
 - It is my engineering judgement that these conditions allow for the design parameters to be slightly below the target design speed.
- Vertical Curve Design Speed = 40 MPH
 - Min K = 64 for Sag Curves
 - Min K = 44 for Crest Curves

If there are any questions relating the design speed used or the anticipated posted speed for this route, please feel free to contact me.

Thank you,



Brian N. Gaffney



CC: Sean Murray
Benjamin Simpson