

Station ID: 056040

Year: 2020

AADT: 15,962

K Factor: 10.50

Large Urbanized Area (pop. > 200K)

I will assume a 1.5% annual growth factor for an Urban area

$$AADT_{2023} = 15962 + (.015)(15962)(3)$$

$$AADT_{2023} = 16680.29$$

assume K value of 10.50 remains the same

$$16680.29(10.50\%) = \text{Peak Hour trips}$$

$$16,680.29(.1050) = 1751.43 \text{ peak Hour Trips}$$

According to the traffic study there will be 435 PM peak hour trips from all 3 future developments total.

$$435 / 1751.43 = 24.84\%$$

$$\text{Signal cost } \$150,000 (.2484) = \$37,255.27$$