

MEMO

TO:	Gene Williams City of Lee's Summit
FROM:	Melissa G. DeGonia, PE
RE:	New Longview Phase 2
DATE:	October 3, 2016
OA PROJECT #:	016-2608
PHASE:	100
TASK:	100001

The following calculations have been provided to ensure that the existing sanitary sewer system will allow for construction of the New Longview Phase 2 development. The new area of commercial development is less than eight (8) acres, so all calculations have been based on residential land use.

These calculations will be further detailed and substantiated prior to permitting for construction.

Total Area = 30.19 ac.	GPD	CFS
Peak Base Flow = 1500 gpd/ac	45,285	0.07
Peak Infiltration = 500 gpd/ac	15,095	0.02
Peak Inflow = KiA	489,978	0.76
K = 0.006		
Tc = 43.86 min.		
I = 4.19 in/h		
Peak Flow	550,358	0.85

Existing Downstream Sanitary Sewer

Pipe Dia. = 8"

Slope = 1.13%

Full Flow Velocity = 3.42 fps

Capacity = 1.19 cfs