

# A LATERAL SEWER EXTENSION FOR APPLIED FOOD BIOTECHNOLOGY

**WASTE WATER FLOWS**

ESTIMATED FLOWS:  
 MONTHLY AVERAGE = 600,000 GAL/MONTH  
 PEAK FLOW = 120 GAL/MINUTE  
 AVERAGE FLOW = 80 GAL/MINUTE

**SEWER DESIGN CAPACITY**

CAPACITY OF 8" LINE RUNNING FULL:

$$Q = (1.486/n) A (R)^{2/3} (S)^{1/2}$$

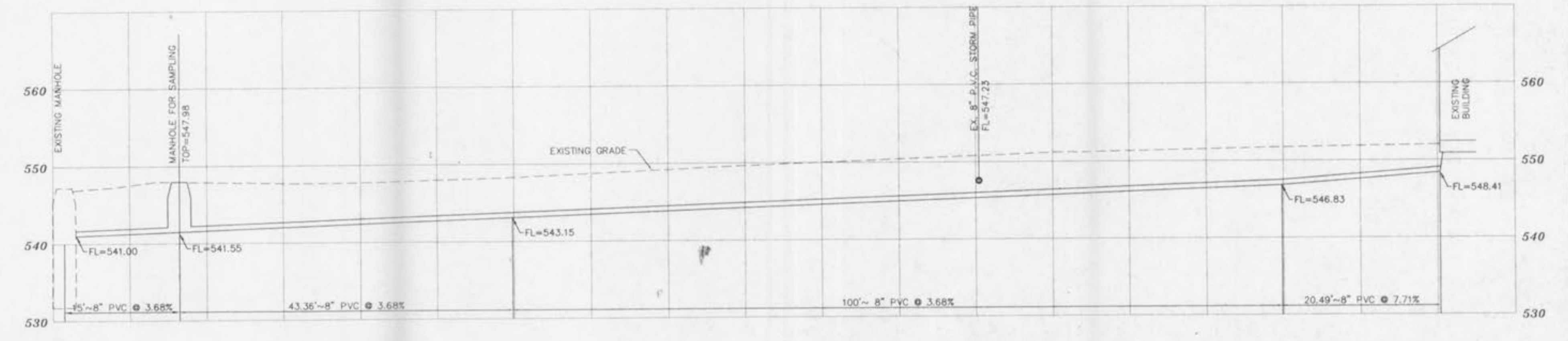
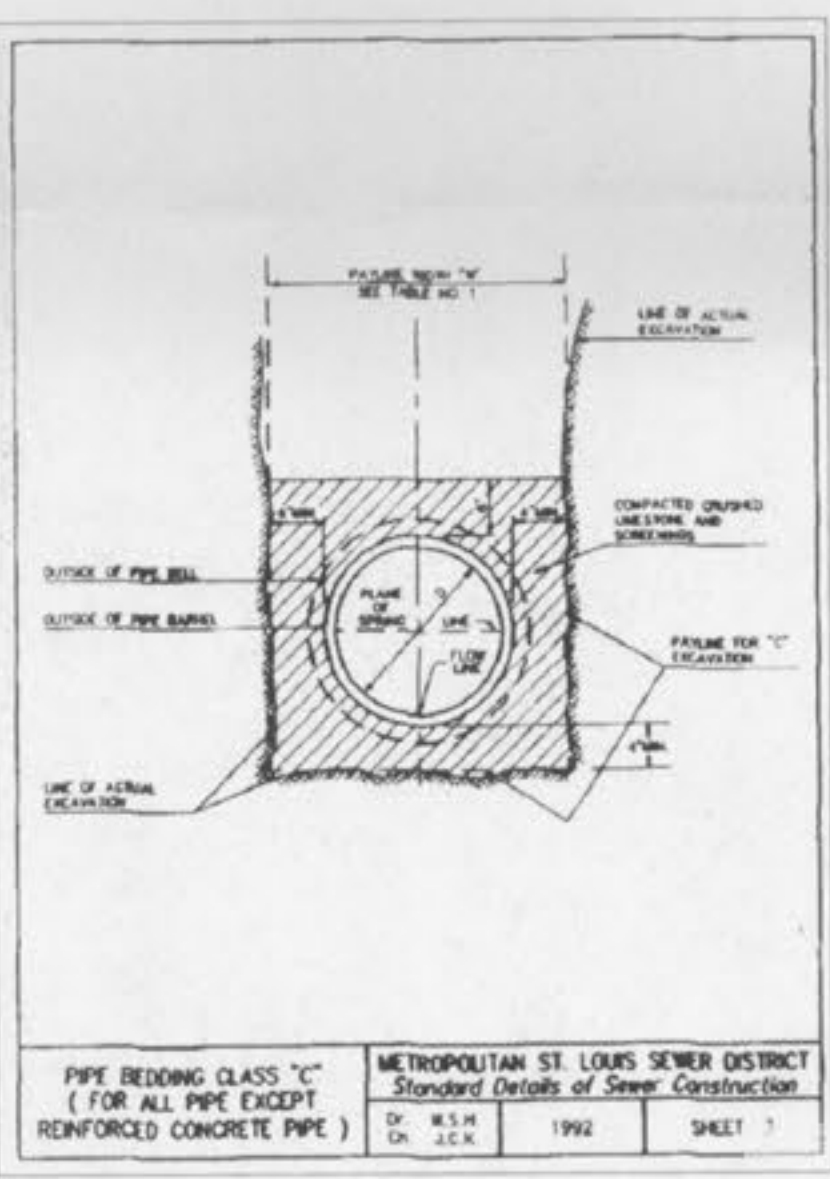
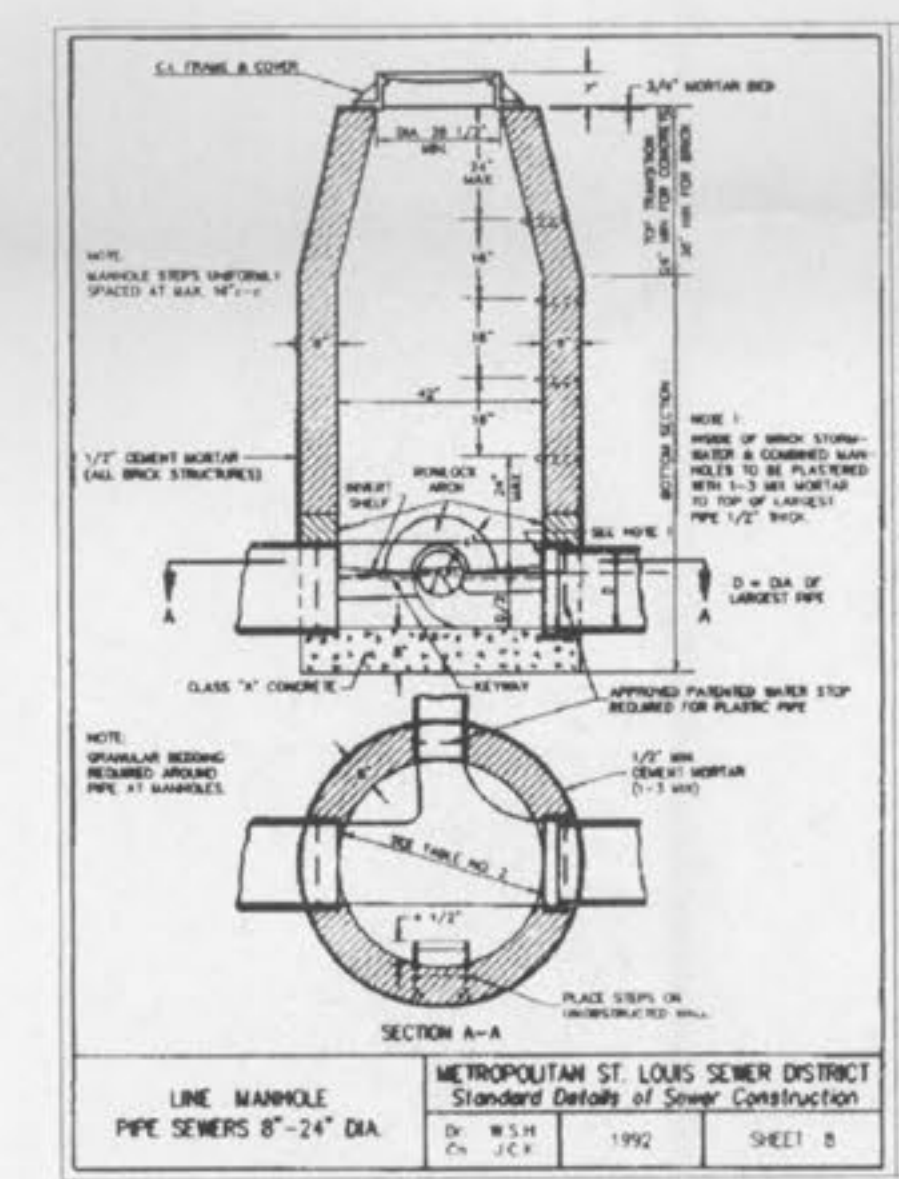
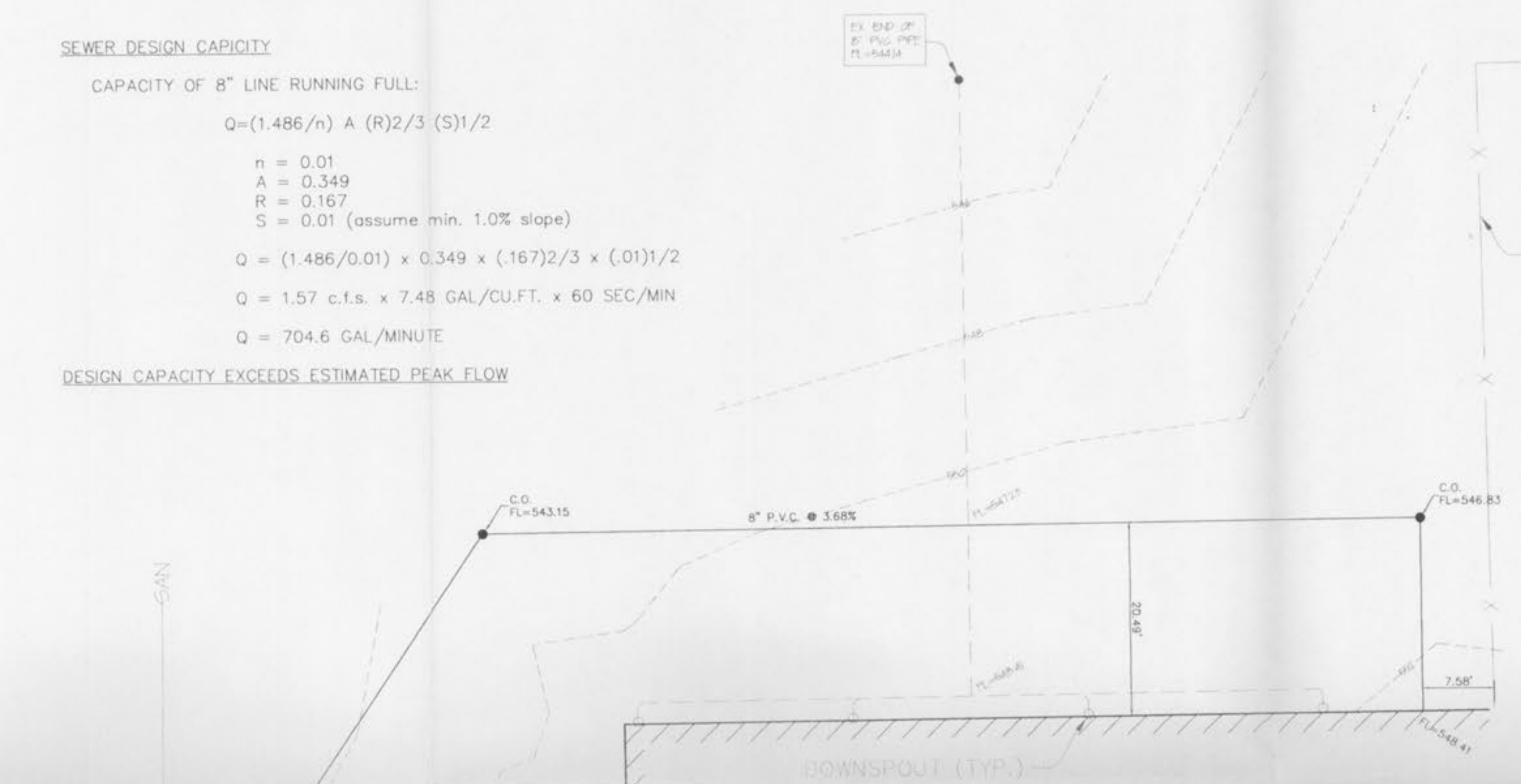
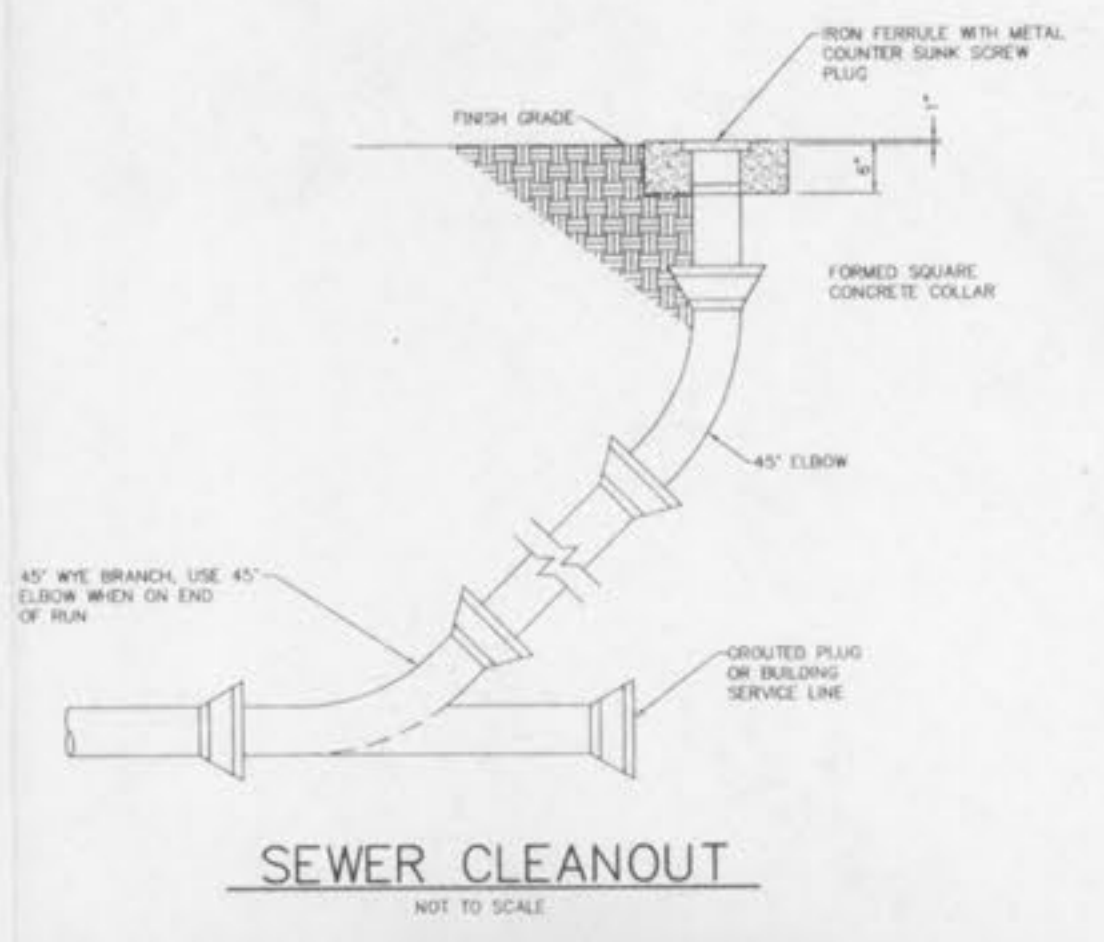
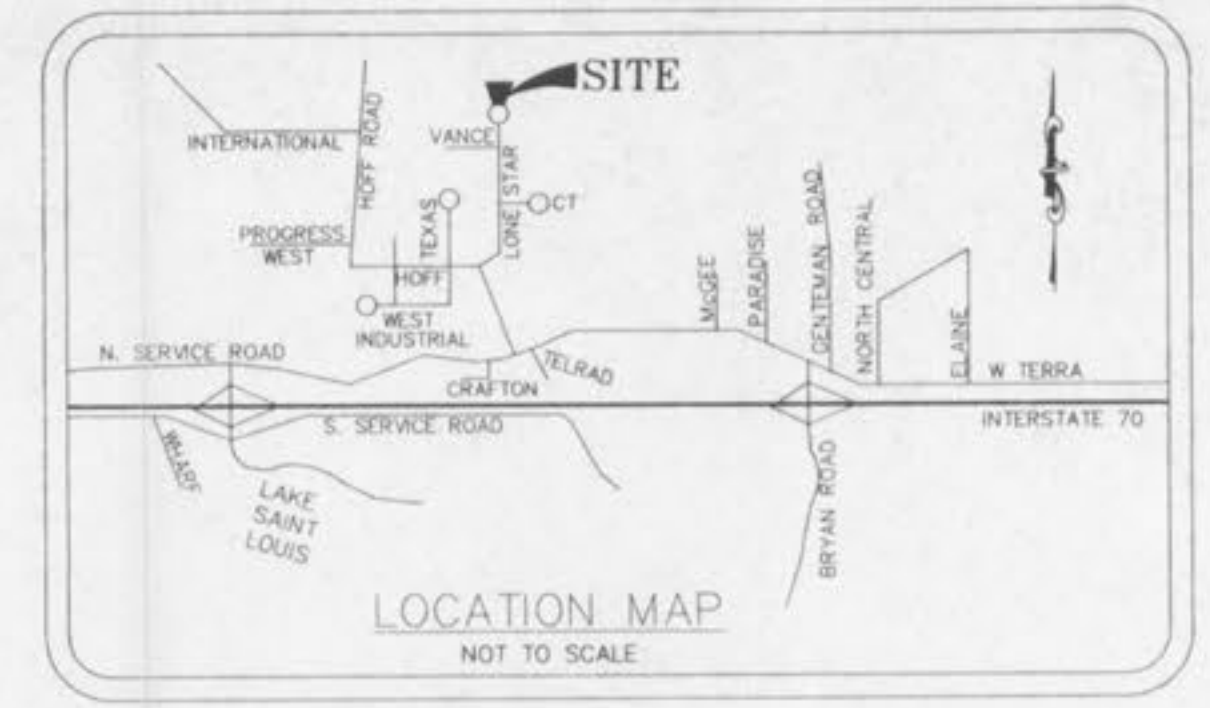
$n = 0.01$   
 $A = 0.349$   
 $R = 0.167$   
 $S = 0.01$  (assume min. 1.0% slope)

$$Q = (1.486/0.01) \times 0.349 \times (.167)^{2/3} \times (.01)^{1/2}$$

$$Q = 1.57 \text{ c.f.s.} \times 7.48 \text{ GAL/CU.FT.} \times 60 \text{ SEC/MIN}$$

$$Q = 704.6 \text{ GAL/MINUTE}$$

DESIGN CAPACITY EXCEEDS ESTIMATED PEAK FLOW



**QUALITY BUILDING**  
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PREPARED FOR:

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 I hereby certify that the documents attached to be authorized by my seal are limited to the stated work and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.



REVISIONS

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 APPROVED



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