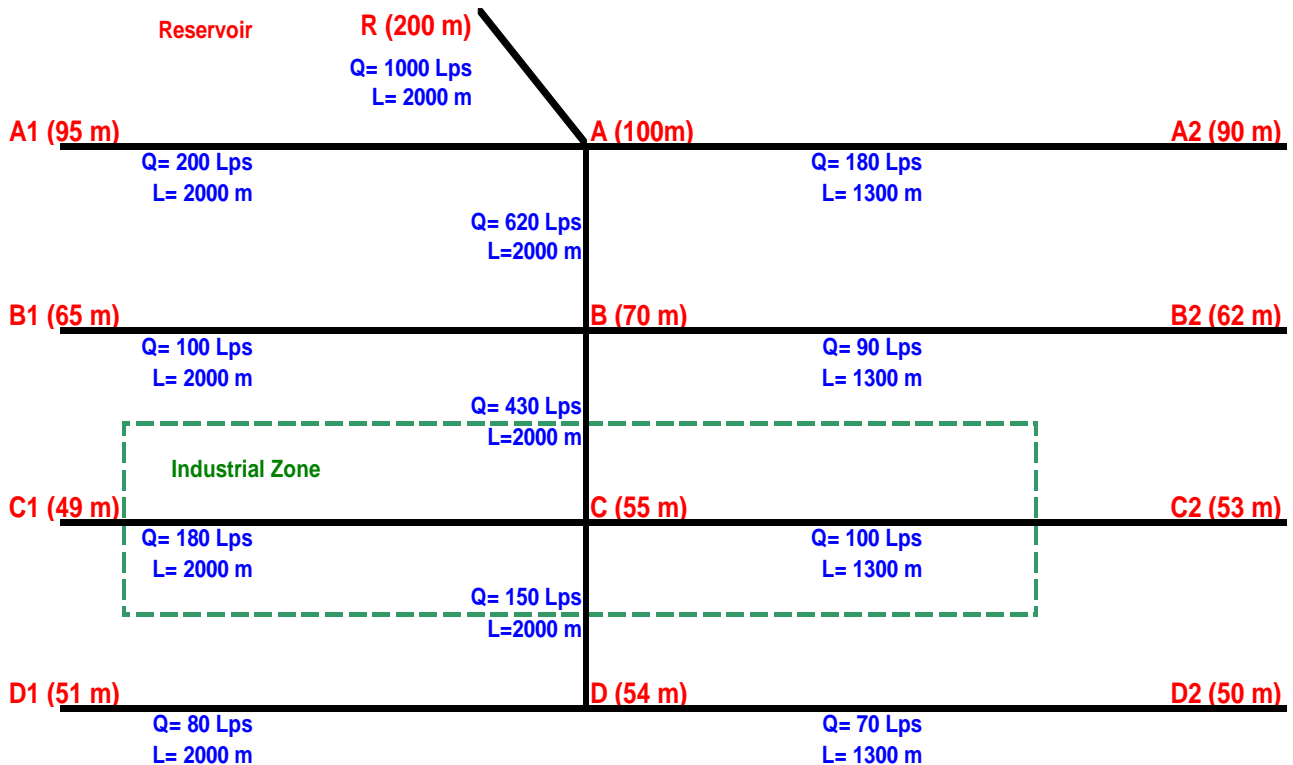


First Example (Tree System)

Design the pipe lines RA, AA1, AA2, AB, BC, and CD? Assume the minimum pressure in resident areas must be 35 m of water and in industrial zones is 50 m of water. $C = 100$



First Example Solution

Start Point of Pipe	End Point of Pipe	Piezometric Head at Start Point (m)	Elevation of End Point (m)	Minimum Pressure in Pipe (m)	Discharge (Lps)	Pipe Length (m)	Available Head (m)	1		2		Total Head Loss (m)	Piezometric Head at End Point (m)	1 - 2	
								Allowable Loss of Head Per 1 m (m)	Assumed Diameter (mm)	C	V (m/sec)				Head Loss Per 1 m (m)
R	A	200	100	35	1000	3200	65.00	0.0203	800	100	1.99	0.0063	20.02	179.98	0.014
A	A1	179.98	95	35	200	2000	49.98	0.0250	450	100	1.26	0.0206	41.23	138.75	0.004
A	A2	179.98	90	35	180	1300	54.98	0.0423	400	100	1.43	0.0329	42.81	137.18	0.009
A	B	179.98	70	35	620	2000	74.98	0.0375	850	100	1.09	0.0029	5.77	174.21	0.035
B	C	174.21	55	50	430	2000	69.21	0.0346	550	100	1.81	0.0167	33.36	140.85	0.018
C	D	140.85	54	50	150	2000	36.85	0.0184	450	100	0.94	0.0155	30.92	109.92	0.003
														0.083	