

Water Supply System Design

Number of Fixtures provided per floor:

9	Water closets
3	Urinals
6	Lavatories
2	Drinking fountains
2	Service Sinks

Table 21.15	Cold	Hot	Total Cold	Total Hot	
Water closet		5	0	45	0
Urinal		5	0	15	0
Lavatory	1.5		1.5	9	9
Drinking fountain	0.25		0	0.5	0
Service Sink	2.25		2.25	4.5	4.5
			74	13.5	
			WSFU per floor	78.5	
			Total WSFU	549.5	

Flush Tank Demand GPM

Load WFSU	Demand GPM
60	33
78.5	x
80	39
x=	38.55

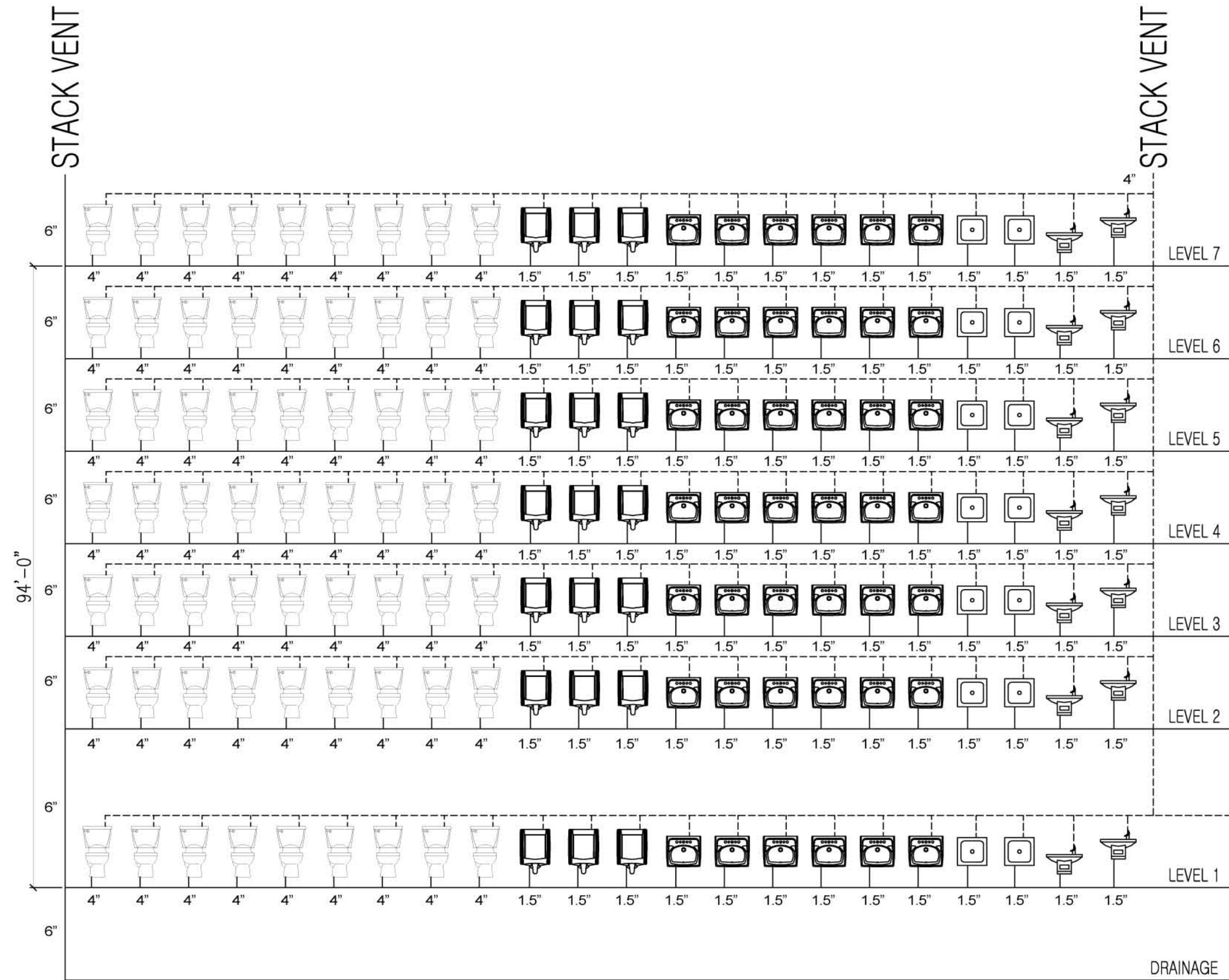
Pressure required of furthest fixture:

Fixture	Flow Rate (gpm)	Pressure	Max flowrate/Quant.
Water closet	3		8 1.6 gal per flushing cycle
Urinal	15		15 1.5 gal per flushing cycle
Lavatory	2		8 .5 gpm @ 80 psi
Drinking fountain	0.75		8 -
Service Sink	3		8 2.5 gal @ 60 psi

Minimum flow pressure:	8 psi
Pressure lost because of height:	42.2911 psi
Pressure lost because of friction:	19.7753 psi
Pressure lost by flow through meter:	15 psi
Total Pressure Lost:	93.0664 psi

Developed Length	263.67
Equivalent Length	131.835
Total Developed L	395.505

Pump Size: 43.0664 psi @ 38.55 gpm



CLARK ESPOSITO
ARCHITECTURE

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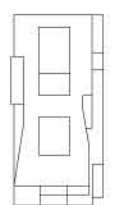
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Client



Key Plan



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