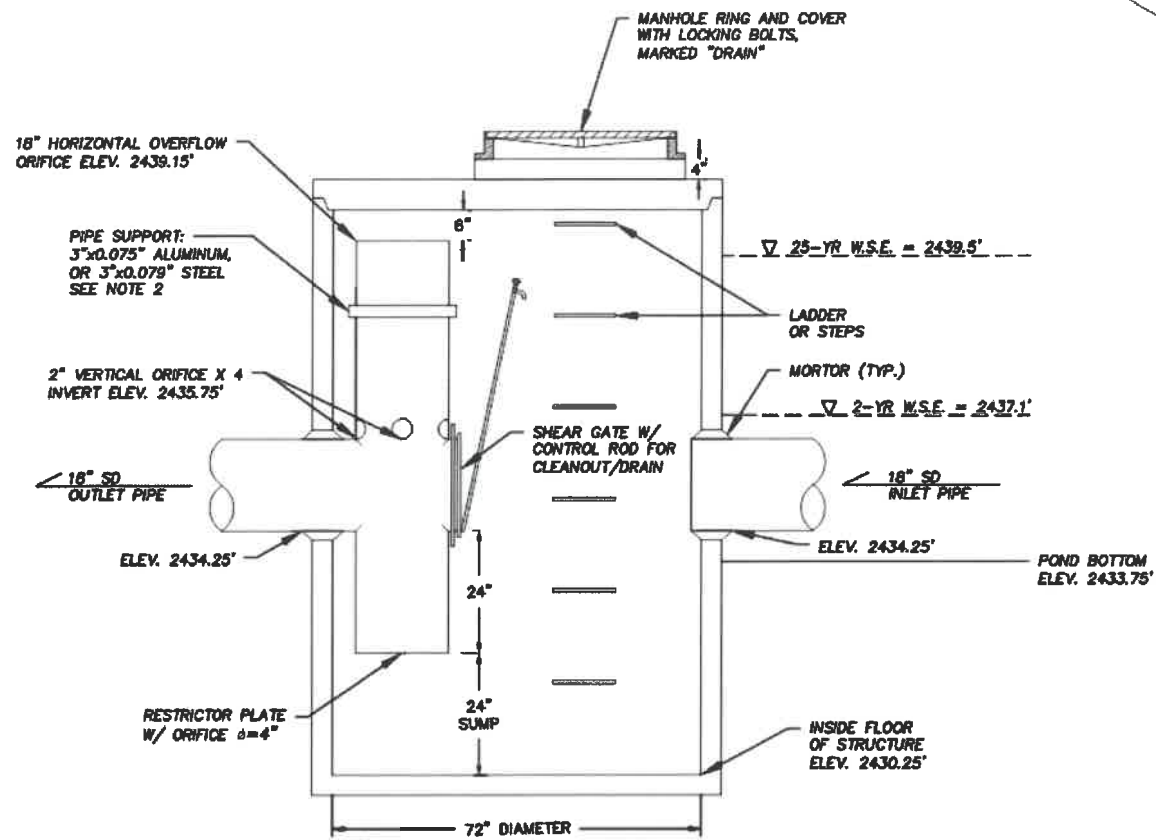
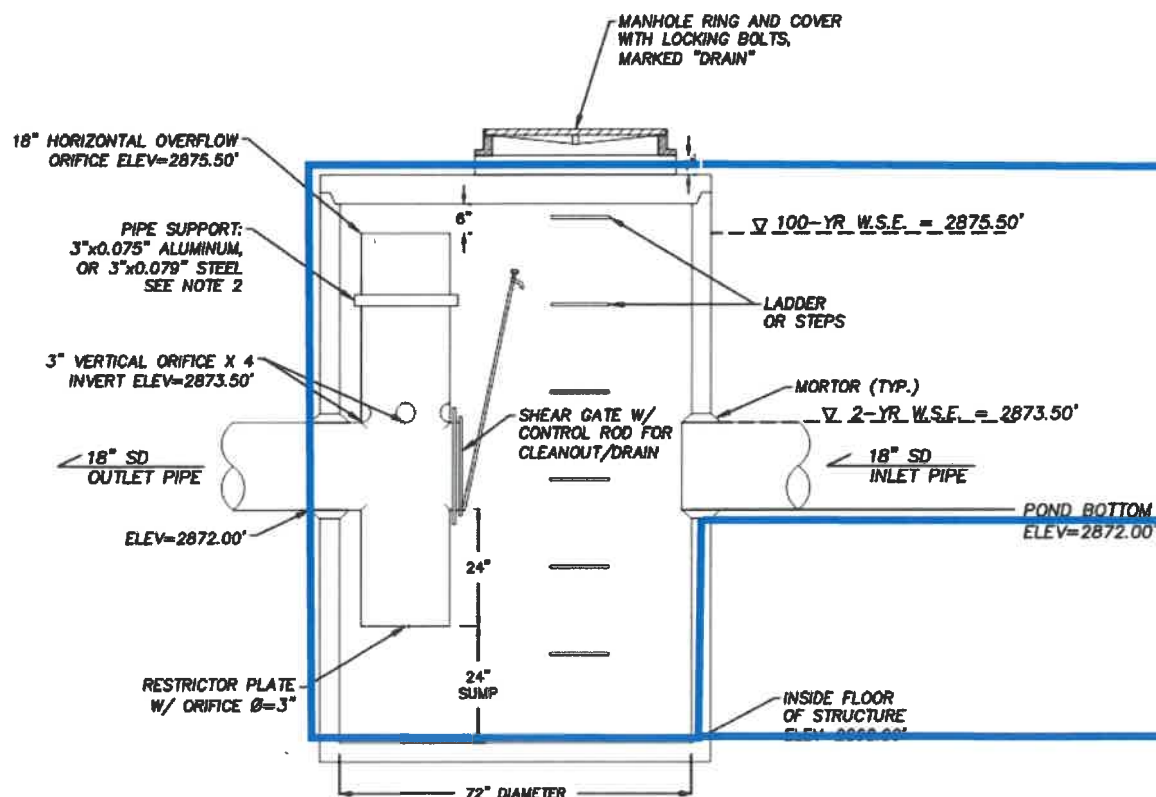


CONFIRMATION THAT SWALES CAN HANDLE DESIGN FLOWS

Mannings Equation		Main Swale	NE Swale
$Q = (1.49/n) * A * (R^{2/3}) * (s^{1/2})$			
Width		10	3
n		0.05	0.05
Area		3.63	1.32
Wetted Perimeter		12.1	5.1
Hydraulic Radius		0.30	0.26
Slope		0.024	0.03
Flow (cfs)		7.51	2.77
$V=Q/A$			
Velocity (fps)		2.1	2.1



HYDROCAD ELEVATIONS AS THEY RELATE TO THE PLANS



EL 8' = POND TOP

EL 4' = POND BOTTOM

EL 0'

POND OUTLINE, THIS IS WHY THE POND SIZE LOOKS IRREGULAR IN THE MODEL, THERE IS A SMALL AMOUNT OF STORAGE FOR THE FIRST 4' (SUMP) BEFORE THE ACTUAL ABOVE GROUND POND STARTS

THIS IS WHY THERE IS 4' OF STORAGE THAT NEVER DRAINS, IT IS THE SUMP IN THE OUTLET STRUCTURE