mjb378

Massielle Begazo's Individual Contribution Page

Automated Design Tool Team

Spring 2010 Contributions

This spring I worked with Nanditha on the launders and the couplings. I spent much of the earlier weeks getting familiar with how the plants work and with MathCAD.The MathCAD tutorial was my first completed assignment. I presented at the teach-in which helped me solidify my understanding of the plant.

Our first task was to add a second socket to the coupling. The launder was shortened in length so that it could be easily removed for maintenance. I assisted Nanditha in creating a space between the lamella and the launders, for in the old designs it looked as if the lamella was supporting the launder but this is not correct. With the added distance between the launder and lamella, the height of the water was increased and thus the height of the sedimentation tank wall had to be increased. I helped Nanditha update the equations in MathCAD to reflect the changes made.

I contacted Sarah Long to find out what they were currently using to support the launder, she mentioned that they used a pvc pipe under the launder as support.After discussing the matter with Heather, Nanditha, and Monroe, we decided that a cement ledge would support the launder.

Post the midterm report, Nanditha and I worked on mostly debugging of the code. We worked on shortening the launder so that it could be removed during maintenance. We also worked on the launder cap ,specifically orienting it in the right direction and making it the right size.This is documented on the Launder Design Page. The issue of the launder support came up, and it was decided to put that off until a later time. The thinking behind it was that we want to come up with a well-thought out solution. The previous idea we had settled on would not work anymore because now that the launder is shorter, the cement ledge would have to be longer to support the launder. Our biggest task towards the end of the semester was working on the coupling script. Originally the coupling would be drawn and portions of it would intersect with the sed tank wall. Our task was to alter the script so that the wall would be subtracted from the coupling, therefore in the drawings you would be able to see through the coupling.