This is the first concrete dome constructed in the Sioux Falls Area. I sent our plan to 2 separate structural engineering firms, one said no way after studying it for 4 months and the other told me they had no idea how to do it! Funny guys ;)
I finally found a firm in Ohio, and they had plans for me in 3 days.
Once we received our permit and began excavation- we hit another delay- this time due to bad soil. We overdug footings and began the dome construction.
The first step is inflating the air-form and ensuring the airlock entrances are properly installed to keep the proper pressure in the dome. The next step in the process is spraying 3" of closed cell spray foam. The step following the spray foaming is tying the rebar per plan in circular pattern nearly from ground to ceiling. The final step in the structural plan is to spray, in lifts, 4" of shotcrete. Lastly, we had all of the interior walls built, windows and doors installed and voila we are all done!

Come on out and check it out! You have never seen anything like it!