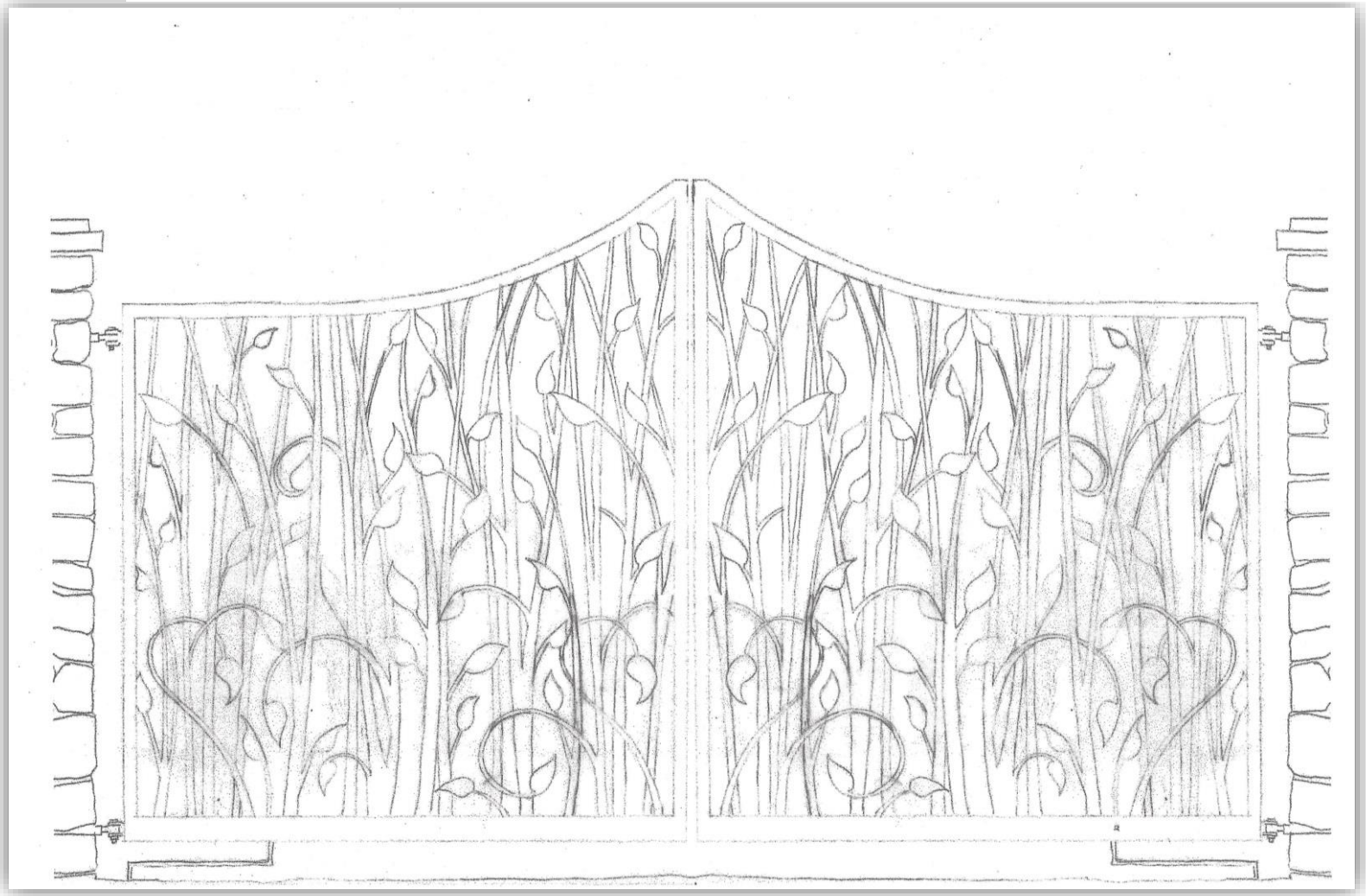
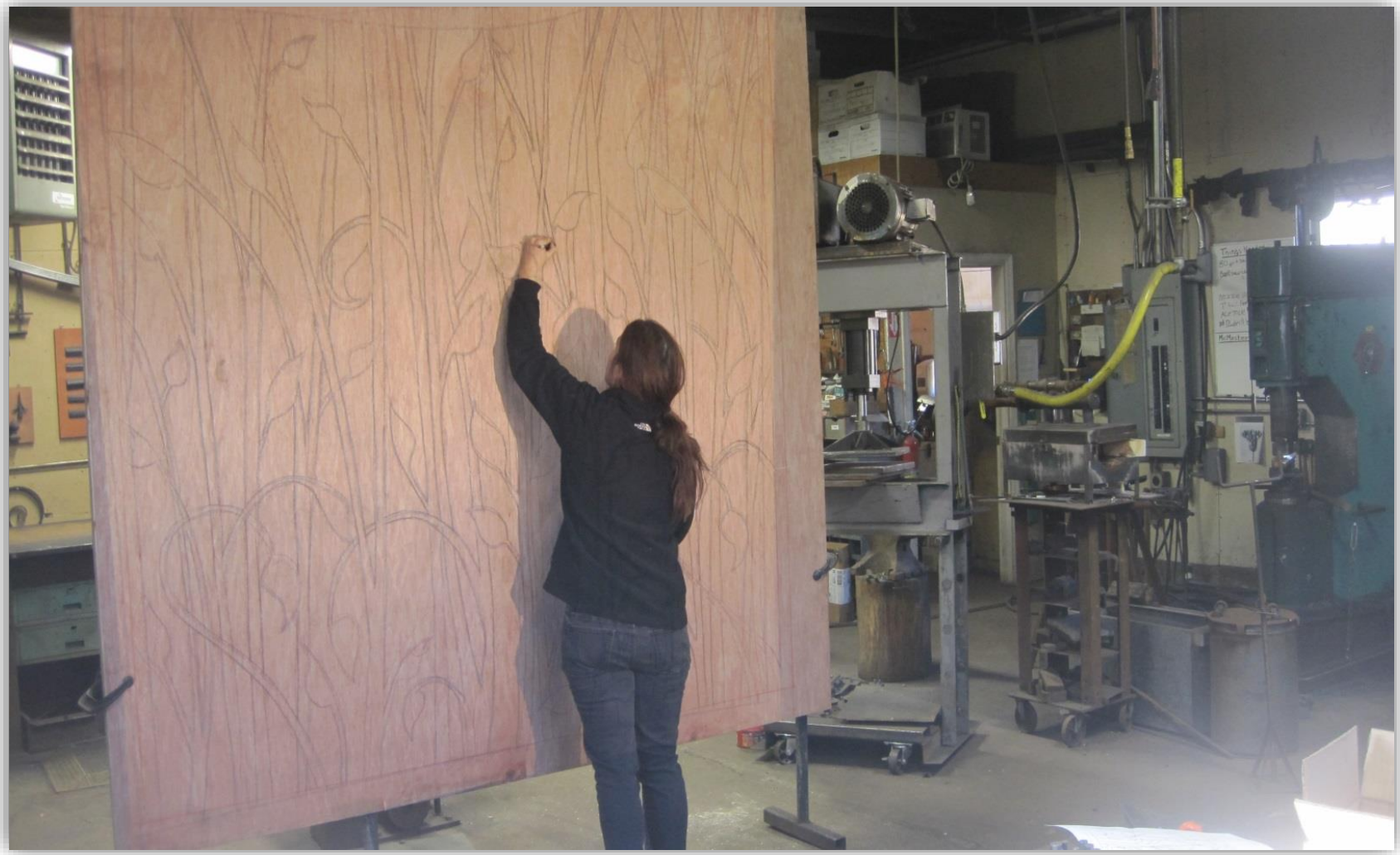
Building Custom Nature Inspired Entry Gates; a case study



We were approached by a client who wanted a set of nature influenced entry gates for her estate in Sag Harbor, NY. She was inspired by a gate design that she had seen while traveling in the Netherlands. Although beautiful, the original design was lacking in depth and detail as it was just a flat graphic cut from steel plate. Our designer felt that a more fully developed composition could be created by forging the leaves from solid material. Forging gives iron a lively and vigorous surface that is not possible by using welding and cutting alone. After redesigning the original pattern, a hand rendered drawing was presented and approved by the now excited client.



The owner and lead designer, Rachel Miller had transferred the design drawing to several large sheets of plywood in order to create a full size drawing of the driveway gates. This allowed our blacksmiths/fabricators to efficiently translate the design into a set of working driveway gates.

Our master smith Timothy Miller had to construct special tooling to efficiently forge such a large quantity of leaves and stems needed for the custom gate. Here, he is setting the shoulder that forms the bottom part of the leaf using a large, self-contained power forging hammer. Methods like this have their origins in heavy industry. Spirit Ironworks have turned these methods to the service of art.

Here you can see that our blacksmith has forged a large portion of the 150+ leaves and stems needed to fill the 2 gate panels. Each stem was bent to its own individual curve as laid out in the design.

This was most easily accomplished by using a traditional tool called a French bending anvil. The smith had a much more subtle control than using hydraulics or mechanical means of bending.

The empty gate frame was fabricated and set up in the middle of the shop. The leaves and stems that were to be fitted into the frame were placed on the floor for easy access. This allowed the fabricator to work efficiently between the anvil, vice, drawing and frame.

A large grouping of the leaves and stems were laid out on top of the full scale drawing. This was done to verify that everything is in its correct position. This also allowed the client to view the project at several points throughout its progress allowing her to suggest any small changes that she desired.

Once the infills were bent to shape and fitted to each frame, the fabricator took time to carefully fill each joint with weld and sand them smooth. This was done to make sure that there would be no water catches on the finished gates. This step is very important to avoid any rust forming on the finished gates. Finally, the custom gates were delivered to the finisher where they received a zinc flame spray coating (known as metalizing). After being metalized, the gates were painted in a custom color chosen by the client.

The gates were delivered to site via the company truck and lifted into place using a crane. This was necessary due to the weight and size of the gates. The gates were then bolted in place using an adjustable hinge system. This allowed for the gates to be adjusted so that they line up perfectly and if ever necessary, any misalignment that may develop could be easily corrected.

The finished gates have been set in place and leveled. We have made and installed a well-designed project, properly tailored to its setting. These gated are made from sturdy long lasting materials with a durable rust proof finish they will stand for many years to come.