“Transference”

Ken McCall and Leslie Dixon

The earth itself grants us a unique gift in the foundations of our foothills. Heated waters from the depths rise toward the surface here in an abundance that few other places in the world experience. This natural source of heat in the form of hot springs helped shape the flow of people into this valley over the centuries. Our cities founders were inspired to incorporate this aspect of earth into their daily lives and Boise thoughtfully continues this tradition today through careful stewardship and renewal of this powerful resource.

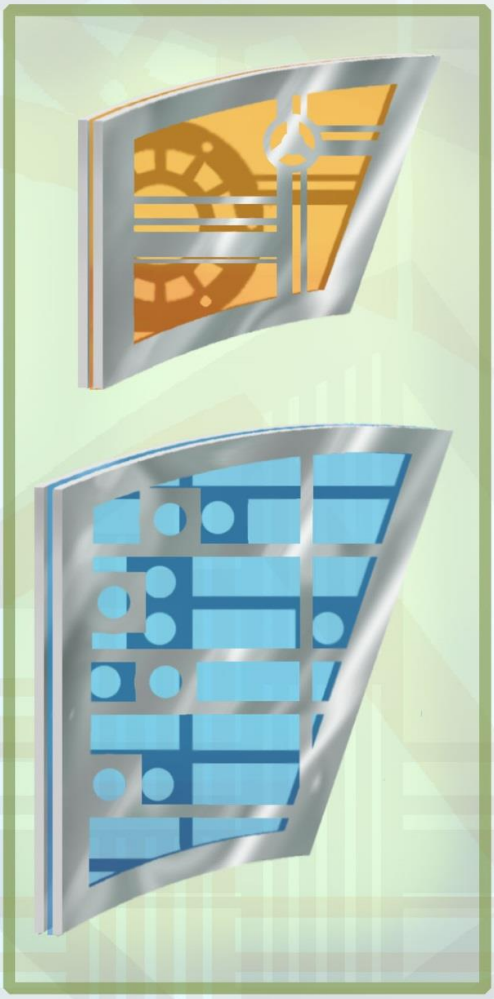
The essence of Boise’s modern success in geothermal energy is expressed in “Transference.” There is an elegant simplicity in the circular nature of the geothermal system. The geothermic water is carefully piped throughout the city where its heat is transferred to the radiating systems of numerous buildings and then the waters are pumped back into the depths from which they came. The sculptures form reflects this with a simple steel circle rooted in the earth, rising and returning again.

The aboveground journey of the geothermic water unfolds along the twelve foot wide circle. Springing from the base is a powerful representation of the superheated waters flowing up to the apex. Motifs of conduits and gauges cut from steel encase transparent panes of red and amber Plexiglas that gradually flex open as they rise. This offering of heat is received by the city at the top of the circle. The cut-steel city panels illustrate actual map locations of buildings downtown and on the BSU campus that receive the geothermal system. The cooling water drops toward the ground in graduated shades of blue Plexiglas and tapers back into the earth.

The design of “Transference” is tailored to the location and the purpose of this monument. Its lines are clean and simple to give contrast to the surrounding intricacies of trees. The bold shapes and height of approximately fifteen feet will allow it to maintain a presence along Capitol Blvd. It creates a natural gate opening that encourages the public to walk through and investigate the details of the sculpture. Using the contrasting colors of the Plexiglas allows the sculpture to standout in the green landscape of summer and the tan of winter. The transparency of the Plexiglas creates a changing interaction with our abundant sunlight and also showcases the differing sides of the cut-steel motifs that bracket each panel. Each side has a different design so that the side farthest from the viewer will appear as a shadow through the Plexiglas and interact with the design side facing the viewer.

The boldness and strength of the design draws the public in to view the sculpture where they will discover our cities unique bond with the earth.

The structural materials for “Transference” are primarily steel and Plexiglas. The supporting center of the sculpture is a four inch steel tube that is custom rolled into a circular arch. The interior opening of the arch is twelve feet wide and approximately ten feet high and the entire sculpture is approximately fifteen feet high. Each end of the arch is anchored in the ground with bolted flanges on poured concrete pads. Installed along the length of the arch are twenty-one panels that represent the passage of the geothermal waters and their influence on our city. Each panel consists of a Plexiglas pane bracketed by twelve-gauge steel sheets that are plasma-cut with images representing our geothermal use. These components will be fully framed to create a sleek, seamless look for the individual panels. All of the steel will be powder coated in a matching metallic finish to create a lasting surface in our high desert conditions.

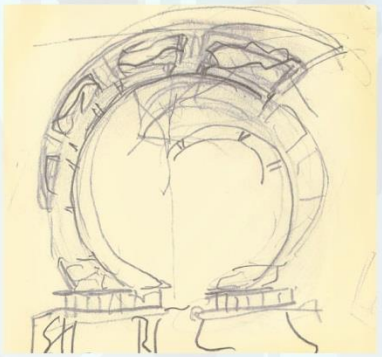


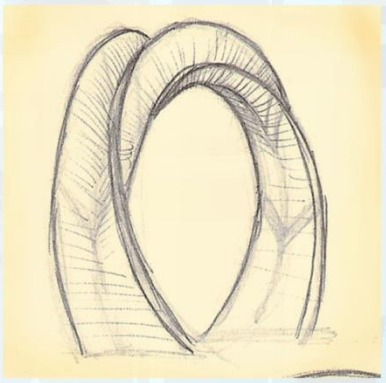
To create the transparent colors that are integral to our design we have chosen to use quarter inch thick full color Plexiglas. Plexiglas has been used increasingly in modern sculpture and allows the interaction with light that we wish to achieve without the safety and weight issues of glass. Each panel of “Transference” will have a Plexiglas pane as its center that will be secured not only along the framing but in multiple points across the bracketing designs. There will be two distinct color variations in the sculpture that represent the warm and cool aspects of the geothermal process. The superheated water side will incorporate amber panes that will graduate to red and the city side will be based on light blue panes that will graduate to darker blue. This gradation of color will be achieved by coating the Plexiglas panes with layers of transparent acrylic in a process called “candy coating.” This process, which is often used in lighted sign production, will produce a rich gradation of color.

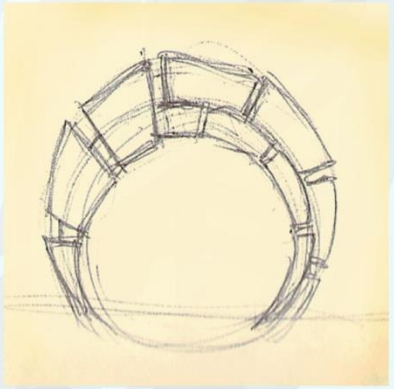
The sculpture is designed with ease of maintenance in mind. Each panel will be attached to the supporting arch with an incorporated gap to allow rain and snow to drain through. The spacing and angles of the panels are designed to prevent climbing or other negative interaction. The framing of each panel will allow access to the Plexiglas panes in the event of maintenance or possible replacement. The finishes are easily cleaned.

“Transference” Preliminary Budget

Materials-	
4” steel pipe rolled into the supporting arch	$ 800.00
12-gauge steel sheets	1750.00
Plexiglas	1232.00
Framing steel	525.00
Hardware	200.00
Special Processes-	
Routing and plasma-cutting	2625.00
Plexiglas acrylic “candy coating”	1575.00
Metal powder coating	2100.00
Engineer fees	500.00
Installation-	
Concrete pour, crane operation, permits, insurance	2000.00
Contingency-	2200.00
Artists Fees-	
Includes concept, design and fabrication	6493.00
Total budget	22,000.00







“Transference” Schedule of Production

Week 1 through 5

The design will be reviewed by an engineer and then finalized for board approval. Design elements will be prepared for computer aided router and plasma cutting.

Week 6 through 9

The acquisition of materials will begin (rolled steel pipe, twelve-gauge steel, Plexiglas and hardware).

Week 10 through 14

The steel sheets will be plasma-cut into components and the Plexiglas will be cut with the router. This will probably continue for much of the fabrication time in batches.

Week 15 through 30

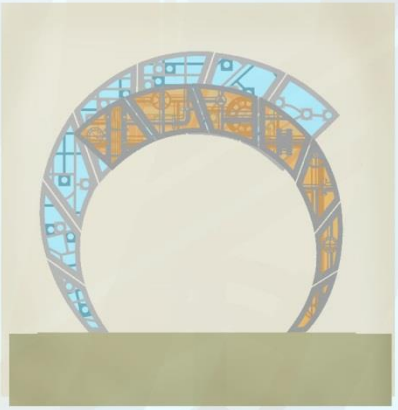
Fabrication of the twenty-one individual panels will occur. Powdercoating of the metal components and “candy coating” of the Plexiglas will take place.

Week 31 through 36

The Central arch will be prepared for panel installation and the panels will be test fitted in studio.

Week 36

The sculpture location will be prepped and all materials made ready for installation.



Week 37

Installation will occur, likely in a two day process.