

# CREATING PUBLIC ART: THE PROCESS BEHIND THE PRODUCT

Fractal Tree Archway and Endless

# Fractal Tree Archway

**Paul Sorey** 

#### Concept & Imagery

Two stainless steel fractal trees create an archway "entrance" to both the new Science Building and the future quad area of campus. The two trees will be visible from the street. Their scale is large enough to complement the building. The space between the trees and under their canopy, however, is of pedestrian scale; thus the artwork serves to bridge the scale of people to the scale of the building.

The trees are a natural form and refer to nature. The trees are made of stainless steel and put together with nuts and bolts; a reference to human interaction with nature.

The branching structure is a fundamental structure that underlies many natural forms and phenomena. The fractal nature of the trees, where each part of the tree is an identical copy of the other parts, scaled and rotated in space, is a mathematical concept that underlies the structure of many forms in nature. The extent to which fractal organization underlies natural phenomena is not clearly understood, and is an area of continuing research in mathematics and the sciences.

**ARTWORK CONCEPT & IMAGERY – ARTIST'S PROPOSAL** 

#### Artwork Description

The trees are each 17 feet tall and 20 feet wide (refer to attached drawings). A five-foot wide section of special paving to match that used at the building entry will span the sidewalk between the trees. The College has agreed to install the concrete footing and the special paving.

The tree grates will be made of 1/2" thick stainless steel plate, three to four feet square, cut with a pattern yet to be determined. The tree grate will be held in place by a stainless steel tree grate frame, fastened to the footing slab.

The tree grate will be designed to meet ADA standards.

Materials used for the trees and tree grates will be type 304L stainless steel plate and fasteners. The exposed portions of the stainless steel will have a grinder finish to pick up light from different directions. The stainless will be uncoated.

The College has also agreed to provide four uplights near the sidewalk for illuminating the trees at night. These could be standard metal-halide lamps or LED lamps.

#### Installation

The College's contractor will provide the concrete footing as part of site construction. The college will notify the Artist several days before the footing is poured for coordination between the Artist and the College's contractor. Once the footing is installed the Artist will install two stainless steel tree grate frames. The College's contractor will then install the special paving over the footing slab.

The Artist will install the tree grates into the frames before the building opens in the Fall of 2009. The installation of the tree artwork will occur before April, 2010.

During installation of the tree artwork the trees will be assembled in place at the site. The bottom section will be bolted to the concrete footing with epoxy-set anchor bolts, and the rest will be bolted section-by-section to the base, probably with the aid of a man-lift or cherry-picker. The bolts will be spot welded to prevent tampering.

The structural engineering for the trees will accommodate the possibility of the trees being climbed. Climbing will be discouraged because of the smooth metal surface of the trees. The protruding bolts and mounting brackets could provide hand- and foot-holds, but are not expected to be easy to use in this manner.

#### Maintenance

Type 304 stainless steel will maintain a bright, reflective finish for many years. Every few years, depending on need, the trees could be washed with mild detergent (dish soap) and sponge to remove dirt and grease. Some tarnishing with age and finger oils is to be expected. The tarnish is actually a layer of protective oxides that keep the surface from corroding. Graffiti can be removed with detergent, mineral spirits or paint remover without damaging the finish.

For long-term maintenance (after 10 - 20 years), the tree structures should be checked for corrosion which should be removed by grinding or acid-etching. Weld metal can be added if weakening of joints is noted.

#### Timeline

Stamped Drawings Purchase Materials 50% completion Permits 100% completion Installation March 2009 April 2009 September 2009 (not required) March 2010 March 2010

### **MAINTENANCE & TIMELINE – ARTIST'S PROPOSAL**

Skagit Valley College Artwork Washington State Arts Commission Fabrication Budget

# <u>Fabrication</u>

Materials	
stainless steel + hardware	\$12,000.00
miscellaneous supplies	\$5,000.00
Labor	\$30,000.00
Subconsultants	1
structural engineer	\$1,500.68
Installation	1 1
Labor	\$2,200.00
Truck Rental	\$500.00
Subcontractors	·
man lift + operator	\$5,000.00
Plaque	\$400.00
Other Costs	
Permits	\$300.00
Documentation	\$500.00
Public Event	\$200.00
Insurance	\$780.00
Contingency	\$6,421.87
Artist's fee	\$6,480.26
State Sales Tax (8.2%)	\$5,845.19
Total	\$77,128.00

# **FABRICATION BUDGET – ARTIST'S PROPOSAL**



# **ARTIST'S PROTOTYPE**



# **ARTIST'S PROTOTYPE**



# **ARTIST'S PROTOTYPE**



**SCULPTURE RENDERING - ARTIST'S PROPOSAL** 



**LIGHTING PLAN - ARTIST'S PROPOSAL** 



LIGHTING PLAN - ARTIST'S PROPOSAL



# Skagit Valley College Artwork Washington State Art Commission

Design Phase Drawing

artist: Paul Sorey date: 03/04/09

**LIGHTING & LAYOUT - ARTIST'S PROPOSAL** 







artist: Paul Sorey

15921 91st Avenue SW Vashon, WA 98070 (208) 567-5721

sheet 3 of 6





artist: Paul Sorey

STRUCTURAL ENGINEE 15921 91st Avenue SW Vashon, WA 96070 (206) 587-5721

sheet 5 of 6



# Size of K 5" 47" Trunks 1/4" plate 16.7' 21502 RUCT Total wt. from top including light green branches = 642 lbs 7.75' light green branch layer 15.5 dark green branch layer 75' Total wt. from top including dark green branches = 783 lbs 5" (desired 7" (desirec)

STRESS CALCULATIONS: COLORS INDICATE DIFFERENT AMOUNTS OF STRESS FROM WEIGHT







# Endless

# Lead Pencil Studio

#### BCC Proposal description Endless by Annie Han & Daniel Mihalyo

#### Concept:

Endless is an expression of the infinite possibility in the combinative nature of knowledge. Individual discoveries that might seem inconsequential or would suggest a dead end can be recombined to form a larger coherence within the constant state of research driven metamorphosis. At any given moment the world of science can be understood as a unified and accelerating progression that feeds our endless search for solutions to ever more complex problems.

The grid of columns suggests a rational portion of the new, existing and future structures within the campus environment where expansion is inevitable. It also expresses the organized framework within the science research where efficiency and accuracy are the foundation. Within that framework is mysterious form expressed as a stair which seems to be simultaneously growing and disappearing. Depending on the position of the viewer, the staircase can be seen as either solid or void, referencing the endless shifts in perception and the importance of contradictory inquiry.

# **ARTWORK CONCEPT - ARTISTS' PROPOSAL**

#### Dimension:

The entire sculptural grid is 62 feet by 78 feet in plan with sixteen (16) individual 16 inch square concrete columns in a 20 by 24 foot grid. Fourteen (14) of the columns range from two(2) feet to seven(7) feet in height with two(2) taller columns holding the staircase aloft at 35 ft in height. The entire length of the 9.5 ft wide stair is 50 ft with a 17foot section missing at the lower base. It is made in welded stainless steel and blackened with a special oxidizing patina. There will be three (3) light fixtures in a line and flush mounted with the ground to up-light the stair section. A stainless steel plaque with etched text and dimension of 8" x 10" x 3/8" will be mounted on a short column near the pathway on route to the Science & Technology building (see aerial view).

#### Material & Finish:

Foundations: Two (2) cast-in-place concrete foundations with Sono Tube forms Concrete columns: Two (2) coats of matte exterior-grade sealer (use graffiti sealer only if it becomes necessary)

Stair sculpture: 3/16'' TIG-welded stainless steel (blackened with exterior rated chemical patina)

Light fixtures: (3) exterior grade outdoor lights linked to the outdoor light timer system for the new building

Name plaque: 3/8'' etched stainless steel plate with black etched letters

**ARTWORK SPECS - ARTISTS' PROPOSAL** 

#### Installation technique:

Smaller pre-cast columns with integral footings will be placed on-site at specified locations. The two larger pre-cast columns will be place on-site within *Sono Tube* foundation forms. The two stair sections will be attached to the two columns by TIG-welding the stairs to the embedded stainless steel plates on the pre-cast columns at pre determined locations. See provided detail drawings.

#### Anticipated routine maintenance:

- •General trimming of grass around the sculpture.
- Picking out debris collected in the stair sections.
- Graffiti removal and surface cleaning and spot-sealing as vandalism occurs.
- All the light fixtures should receive a thorough cleaning during lamp replacement

#### Anticipated special maintenance: Every 10 years

•All columns to receive a power washing and re-application of the exterior grade concrete sealer

•Critical column to stainless steel weld joints should receive inspection for rust and weld degradation

### **ARTWORK INSTALL AND MAINTENANCE - ARTISTS' PROPOSAL**

#### Timeline:

•August 2007: locate and coordinate exterior lighting and conduit with contractor and Miller/Hull

•August 2008: check with Miller/ Hull construction schedule, get updates on overall project status

•September 2008: proceed with engineer calculation and foundation design

•October 2008: purchase materials and start fabrication for the stairs and order pre-cast concrete columns

•November 2008: check with construction schedule and coordinate site preparation including power to light locations and column locations

- •November 2008: 50% completion on stair and columns
- •December 2008: continue on stair fabrication & coordinate with M/H site & landscape work

• January/ February 2009: site work (digging column locations & possible placement of columns)

• March 2009: All columns placed on site, finish stair fabrication

• April 2009: Installation of stair on site

• May 2009: 100% completion

#### Public event:

Artist talk in May: Artist talk at BCC- will coordinate time as it gets closer, possibly associated with the grand opening.

**TIMELINE AND PUBLIC EVENT - ARTISTS' PROPOSAL** 

# **BCC Budget**

Category	Description	Amount
Materials & equipment	SS rods, pre-cast concrete, lighting & related equipment	\$40,000.00
Structure engineer	consulting & stamped engineering calculation	\$1,000.00
Labor- artist	fabrication of welded sculpture	\$9,000.00
Labor- assistant	concrete & site work	\$9,000.00
Studio	overhead costs rental space during production	\$3,000.00
Identification plaque	3/8'' etched stainless steel w/epoxy anchor	\$ 500.00
Installation labor/ equipment	extra help and small crane service	\$5,000.00
Insurance	during fabrication & installation	\$ 500.00
Artist travel cost	site & shop visits	\$ 500.00
Delivery of artwork to site	columns & sculpture delivery on flatbed	\$1,000.00
Installation per diem	artist & crew meals during installation	\$ 420.00
Public event	presentation preparation & time for 1 BCC presentation	\$ 350.00
Artist fee	ideas, coordination & site visit for 2 persons	\$8,000.00
WA state tax	on artist fee & labor	\$1,512.00
Contingency & inflation	unforeseen costs & inflation	\$7,000.00
Total	Artwork Budget	\$86,782.00

# FABRICATION BUDGET - ARTISTS' PROPOSAL



# **ARTISTS' RENDERING**



Bellevue Community College LPS 2007 FINAL PROPOSAL FOR "ENDLESS"

**ARTISTS' RENDERING** 



Bellevue Community College LPS 2007

# **ARTISTS' RENDERING**

# **ARTISTS' SCALE DRAWING**



#### 17.8 ken igen • PLAQUE ₽D ۵ • 62' 3 in the •50' ۰ ... ..... .... S ........ · . 78' PROPOSED SITE FINAL PROPOSAL AUG. 3, 2007

# **ARTISTS' LAYOUT PLAN**

# **ARTISTS' FOOTING/FOUNDATION PLAN – DETAIL VIEW**

LPS - BCC FINAL PROPOSAL AUG 3, 2008







**ARTWORK IN FABRICATION** 



# **ARTWORK IN FABRICATION**



**ARTWORK IN FABRICATION** 



# **INSTALLATION PHOTOGRAPH**



# **INSTALLATION PHOTOGRAPH**



# **INSTALLATION PHOTOGRAPH**



**INSTALLATION PHOTOGRAPH** 





