LAKE TO SOUND TRAIL KIT OF PARTS

Jenny Heishman & Kurt Kiefer

4Culture & King County Parks and Recreation



2015







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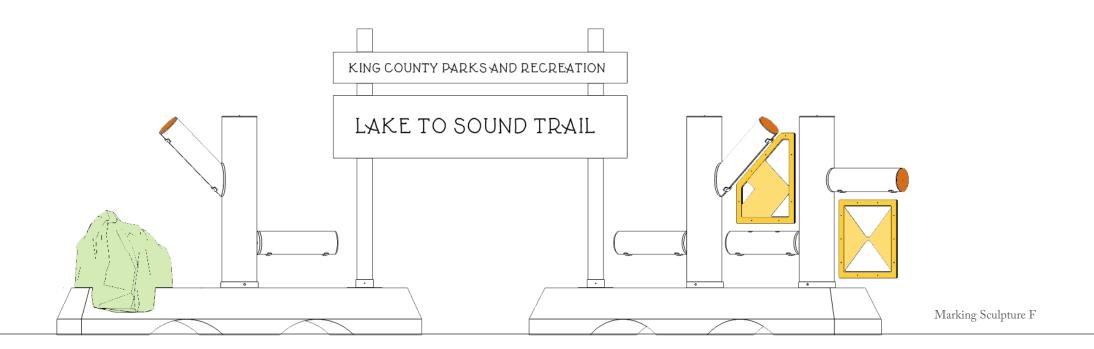
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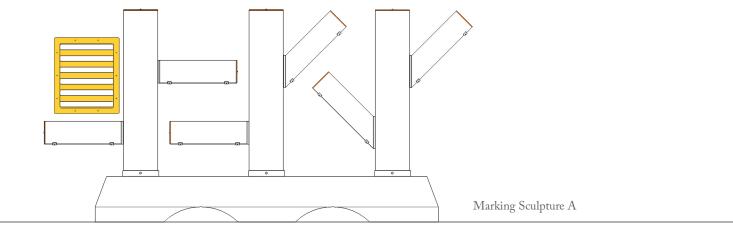
Project Background

King County, Washington's Regional Trails System (RTS) is one of the largest in the United States, linking communities and natural places throughout the county with over 175 miles of trails. As both a system for recreation and transportation, the RTS includes trails for bicycling, hiking, walking and horseback riding. At the time of this publication, King County is in the process of growing the RTS into a network more than 300 total miles in length.

Built from existing and newly-constructed trail segments, the Lake to Sound (L2S) Trail will eventually be an east-west corridor running a total of 16 miles from the southern tip of Lake Washington through the cities of Renton, Tukwila, SeaTac, Burien and Des Moines to Puget Sound. The trail's surroundings include urban streetscapes, busy multi-lane roadways, lush forests, industrial corridors, an historic highway and suburban neighborhoods.

In 2011, 4Culture, the cultural services agency for King County, commissioned artist Brian Borrello as an artist-in-residence to research and develop an Arts Master Plan for the inclusion of artwork in the RTS. His plan articulates a comprehensive vision, making the county's network of trails distinctive, attractive, and unique. In addition to serving as a guide for the creation and stewardship of art and design, the plan proposes the development of an RTS aesthetic and ethos in the service of enhancing trail user experiences.

As intended, Borrello's plan was used by the King County Parks and Recreation Division and 4Culture to develop this project in an effort to test the principles of the Arts Master Plan by introducing artwork into the L2S Trail's infrastructure. The scope of work for this project outlined collaboration with King County Parks planning staff and municipal stakeholder representatives to create designs for a series of modular artworks - an artwork Kit of Parts (KOP) - for phased introduction into current and future L2S segment developments.



Project Review Process

While 4Culture has the authority to commission the Kit of Parts and the trail is being designed and built by King County Parks and Recreation, importantly, the ownership of the physical trail and all of its component amenities will be transferred to each of the five cities it passes through (Renton, Tukwila, SeaTac, Burien and Des Moines) upon completion. We are conscious that the project must fit comfortably within the streetscapes and parks of each city and also be reasonably simple to maintain and repair.

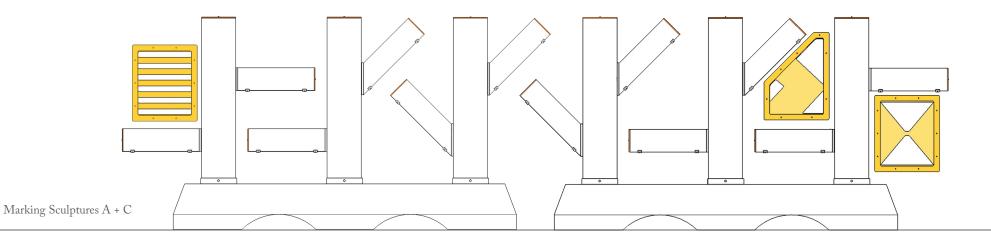
We have studied the L2S corridor's natural, built, and cultural environments, its construction plans, and the regional trail system in general with the support of Robert Foxworthy and Jason Rich, who are planning and managing the development of the trail as King County Parks and Recreation staff. This has included a number of guided tours of existing trail segments such as the Marymoor Connector Trail, the existing segment of the L2S trail just north of SeaTac Airport, and the Green River Trail. We familiarized ourselves with standard trail amenities, including

the approved design prototype for trail mile markers and informational kiosks currently in place on a number of other RTS trails. To better understand the management of the trail system and its maintenance, we visited both the Renton and Marymoor King County Parks and Recreation Facilities Maintenance Shops. After the initial phase of orientation and research, and as our preliminary designs developed, we used monthly meetings to review and refine our thinking with Foxworthy and Rich.

Our work has also included independent research into the communities that will be served by the L2S Trail. This research has involved trips to the Renton Historical Museum, the Nelson Residence in Tukwila, Des Moines Creek Park, tours of Des Moines Memorial Drive, the Cedar River and southern tip of Lake Washington, Soos Creek Trail, the Black River Forest and study of other King County trails as both bicyclists and pedestrians.

To coordinate our efforts with the trail's stakeholders, we have met with a recently-formed Lake to Sound Trail Stakeholders Group, the 4Culture Public Art

Advisory Committee and the Des Moines Memorial Drive Preservation Association. At each of these meetings we have presented our designs-in-progress to gauge enthusiasm for the designs and to understand the maintenance concerns with our approach.



Along the Trail's Alignment

Imagine riding the Lake to Sound Trail. Hop on a bicycle at the mouth of the Cedar River where it spills into Lake Washington and head south. At this end of the trail, you'll being heading on a straight shot in a thin park between the enormous Boeing Renton Plant and the Renton Municipal Airport. While riding along you may be able to watch a few brandnew airplanes take their first flights. At the southern end of the park, the trail will continue along the Cedar River to an intersection under Interstate 405 and a sharp right turn into Renton's historic downtown.

Here the trail will wind through commercial and residential streets, eventually arriving at Rainier Avenue South, a wide, eight-lane arterial. After crossing that intersection, you will ride along a relatively quiet, warehouse-lined street, heading west along the northernmost edge of the Kent Valley.

After a mile, you will enter the Black River Riparian Forest, the first natural area along the trail. Surrounded by light industry, these are dense woods and home

to one of the largest heron rookeries in the area. As you emerge from the forest, you will cross Monster Road, the large concrete recycling facility on the south end of the Skyway ridge. Although actually named after Charles A. Monster, the road is used by trucks going back and forth from the gravel pit and concrete recyclers, suggesting monsters of the large vehicular variety. Riding underneath two rail line bridges, the trail joins the Green River Trail and then reemerges in a light industrial and multi-family neighborhood in Tukwila.

After dipping under Interstate 5, the trail climbs a steep hill along what is now South Center Boulevard, bordered on one side by the light rail guideway and on the other by dense multi-family housing. After passing the Sound Transit Tukwila Station, you will continue onto busy South 154th Street and ultimately skirt the north edge of the SeaTac Airport, riding along an unexpectedly quiet, curving access road.

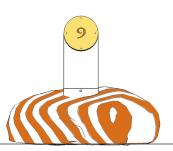
Continuing south, you will ride through Sunnydale, an historic community within Burien. On the west side of the street, the neighborhood remains residential; on the east is a greenbelt buffer to the airport runways. Along this section you will pass the largest new collection of replanted elm trees.

The trail is now along Des Moines Memorial Drive, an historic highway once paved in brick that connected the farms of the Highline area with markets in Seattle. The Drive was dedicated on Armistice Day 1921 to the memory of Washington soldiers who served and died in World War I. Those soldiers were each memorialized with the planting of an American Elm, very few of which survive today. A local group of activists is working to replant those trees and revitalize the memorial and, as you ride along, you will be in the shade of both the surviving elms and many newly planted replacements that are part of the Lake to Sound Trail project.

Here the trail hugs the road with little room to spare, crosses through the future State Route 509 corridor and loops back south. The neighborhood is residential and green, though only a short distance from the SeaTac Airport runways. After South 176th Street, Des Moines Memorial Way is a light industrial

district and the roadway becomes something like a highway. After about a mile and a half of busy streets, the trail turns left and runs through the dense green of South 196th Street, eventually curving back south along the Tyee Valley Golf Course. At South 200th Street, you'll jog left then right and enter Des Moines Creek Park just downhill from the soon-to-be-opened light rail station at International Boulevard. Gliding through the park you'll finally wind your way through the remnants of the Covenant Beach Bible Camp (now City of Des Moines event spaces), finishing your ride at Des Moines Beach Park and Puget Sound.

Over the course of your ride, you will have traveled through wooded parks, residential neighborhoods, commercial areas, light and heavy industrial districts and an historic urban center. The ride is winding, requiring you to pay attention to navigation and to changing conditions. Along some sections, the trail will be a quiet and peaceful place to ride; at other sections, it will be close to busy roadways. These are the conditions we have considered in developing the Kit of Parts.



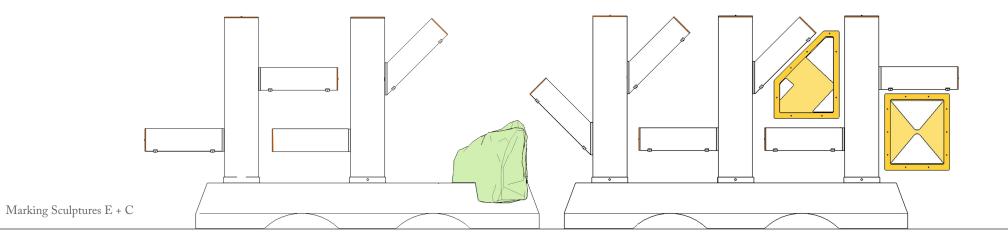
Marking Sculpture I

Kit of Parts Project Description

The Kit of Parts project design is intended as a unifying effort. It is meant to give the L2S Trail, with all of its varied circumstances, a recognizable overall look and feel. The Kit elements will support social spaces along the trail, assist in wayfinding, provide posting sites for King County trail information and help make the alignment as safe as possible.

Other than the trail surface itself, RTS trails have very few built features, and those that are part of trail designs are often highly regulated forms intended for warning and wayfinding. After looking extensively at the signs, site furnishings and amenities that are normally included in a trail's design, we came to the conclusion that there were scant opportunities to modify approved standard trail amenities, much less successfully transform those objects into artwork. As a result, we chose to focus our efforts on creating works of sculpture that we hope will help create a unified identity for the trail.

To that end, we have taken the concept of a Kit of Parts literally and looked to interlocking toys such as Tinker Toys, Lincoln Logs, and K'nex as models for building a sculpture-making Kit that is flexible and dynamic. Our goal has been to create that Kit with a small collection of component parts that can then be assembled in many different and successful arrangements.



Kit of Parts Components

We began our initial design thinking at the two ends of the trail. Both waterfronts host the natural objects of Washington shorelines – most prominently logs and rocks. We imagined the trail as a waterway that connected Lake Washington to the Puget Sound, with its flow of people walking, biking, running. The center channel of this waterway, the trail itself, is a well-established and highly regulated design, so we came to think of our available area of influence as being the "banks" of the trail. In response, our initial designs were like the clusters of rocks and logs that gather at outer edges of river bends.

We propose that, like the accumulations of logs and rocks gathered along the outer edges of river bends, the L2S trail has both standard amenities and our additions of the sculptural Kit. Like the material along a riverbank, these objects will all function to protect and support the flow of people along the trail.

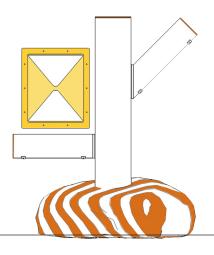
The look and feel of the Kit elements is intentionally reminiscent of the remarkable hand-built timber,

steel and stone structures of the Great Depression-era Works Progress Administration Civilian Conservation Corps (CCC). We are inspired by the elegant ways in which CCC craftsmen and craftswomen manipulated oversize timbers and rocks to make the signs and buildings that form the brand of our national and state parks as a whole. These utilitarian sculptures speak to us with their spirit of make-do efficiency, reverence for local materials, immediacy of design, and timelessness.

At one of our earliest meetings, a member of the King County Parks and Recreation Division staff, noting the complexity of installing simple mile markers along trails, suggested that perhaps the best way to deploy them was to simply push mile marking stones out of the bed of a pickup at appropriate points along the trail. His thought was that, if the markers were big enough and heavy enough, they would just sit where they landed for years to come with minimal site preparation and virtually no maintenance. This proved to be a key insight and we embraced the notion of simply dropping objects out of trucks into our design thinking. It is the kind of thinking that we believe sparked the creativity of our CCC forebears.

To that end, the fundamental components of the Kit are two precast concrete bases that are designed to be heavy and broad enough to hold objects without being easily tipped over. The first of these is a long, broad, exposed aggregate block with three mounting holes, reminiscent in form of vehicle barriers, but carefully crafted and finished to suggest that it has been on a beach for some time. We refer to this component as the Long Block. It provides a firm base and structural support to hold arrangements of the other Kit elements as well as standard trail objects such as entrance signs, mile markers, and dog waste bag dispensers. The second concrete base is in the form of a rock, with one center mounting hole and a surface pattern of stripes. Called, not surprisingly, the Striped Rock, it also provides a base and structural support for simpler arrangements of other Kit Elements.

The most prominent of the Kit components are the Timber Forms: four different configurations of a large vertical post and two smaller-diameter arms. Vaguely figurative and suggestive of semaphore positions and letterforms, the Timber Forms can serve as channelizers, but more importantly, non-signage



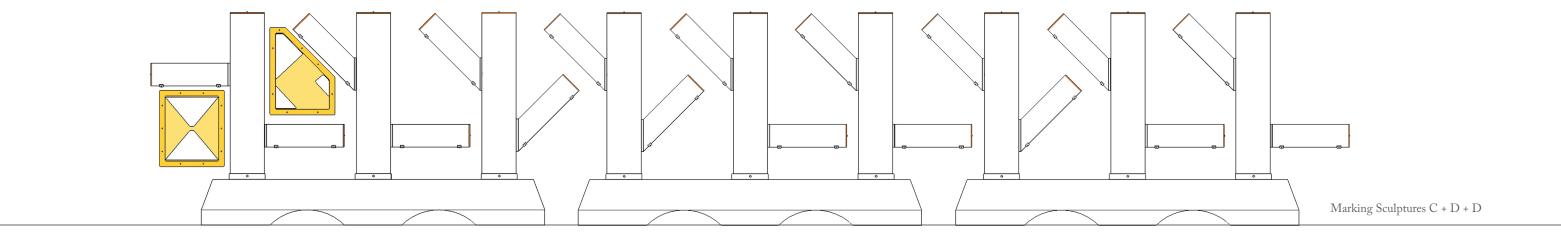
Marking Sculpture G

signage, helping to identify the trail and supporting wayfinding like orienteering landmarks. In developing the assemblies described later in this document, we have identified these sculptural forms as Timber Forms A, B, C & D. To complement and contrast the Timber Forms on certain Long Block assemblies, we have also included another precast concrete object called the Notched Rock. Based on an actual natural rock, this object sits tight to the Long Block on a joint formed to fit neatly against the Long Block's top and side.

We have specifically intended to have the Kit materials match the vernacular of other trails systems and have kept bright colors to a minimum. Nonetheless, we believe that spots of color are important to the success of the Kit and have introduced it through painted end caps on the Timber Forms and sign-like constructions we call Framesets that are hung from certain Timber Form assemblies.

Understanding that there is already a proposed mile marker standard for the trail, we have nevertheless designed an alternative for consideration, combining a Striped Rock and truncated section of Timber Form. Additionally, we believe a modified version of this assembly can be used to highlight other trail signage and perhaps even things like neighborhood mailboxes in locations where the trail runs very close to private homes.

Finally, we have included a small version of the Striped Rock in the Kit, which we are calling the Small Striped Rock. Also a striped precast concreted rock, the Small Striped Rock is the size of a common "two-man" and intended to be deployed in rockery walls and other places where there is little or no available space alongside the trail, but there is a need or desire to identify that section as part of the larger Lake to Sound Trail.

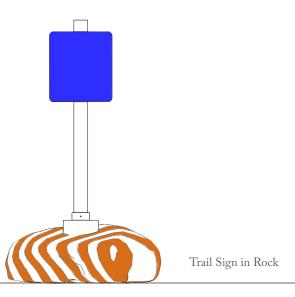


Kit of Parts Assemblies

The KOP components can be assembled in many configurations. By our estimation, for instance, there are at least 64 different combinations of Timber Forms in the Long Block and we think most of them make interesting sculptures. If possible, we believe that trail segment designers could choose from the KOP components and build their own assemblies. For the first phase of implementation, however, we have developed a collection of assemblies, referred to on the attached shop drawings, as Marking Sculptures A-K.

The following pages are a table detailing the KOP components for each of these Marking Sculptures (labeled MS for brevity). The specific layouts of each component within these assemblies are detailed in the accompanying construction documents.

	Long Block	Large Striped Rock	Timber Form A	Timber Form B	Timber Form C	Timber Form D	Notched Rock	Frameset Stripes	Frameset Chevron	Frameset Triangles	Mile Marker	Small Striped Rock
Marking Sculpture A	1		1	1	1			1				
Marking Sculpture B	1		2		1				1			
Marking Sculpture C	1		1	1	1				1	1		
Marking Sculpture D	1			2	1							
Marking Sculpture E	1		1	1			1					
Marking Sculpture F	2		1	2			1		1	1		
Marking Sculpture G		1		1						1		
Marking Sculpture H		1				1		1				
Marking Sculpture I		1									1	
Trail Sign		1										
Rockery Wall												1

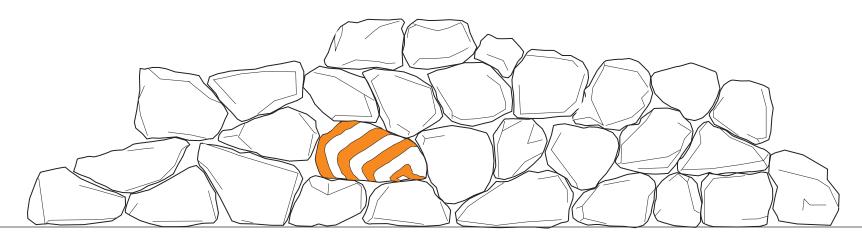


Kit of Parts Placement

Assemblies constructed from the KOP should be installed along the L2S Trail frequently enough to support the identity of the trail, but not so frequently that they become too dominant. The KOP is intended to encourage onward travel from site to site and its components should be unusual enough to reward trail users with their discovery.

The KOP assemblies should also be used like cairns - wayfinding tools to help trail users navigate the complex alignment without signage. This does not mean that the assemblies should replace signage, but, instead, augment that signage with visual clues in much the same way as landscape features are used by orienteers. Because trail safety is critical to the success of the RTS, and trail safety markings and strategies are highly regulated, the KOP assemblies should not be used in places where they would cause confusion. If appropriately sited, however, they may be used to supplement other trail safety features in situations where their use is not otherwise prohibited.

Marking Sculpture A	Intersections, straightaways, rest areas, constricted segments
Marking Sculpture B	Intersections, straightaways, rest areas, constricted segments
Marking Sculpture C	Intersections, straightaways, rest areas, constricted segments
Marking Sculpture D	Intersections, straightaways, rest areas, constricted segments
Marking Sculpture E	Intersections, straightaways, rest areas, constricted segments
Marking Sculpture F	Trail entrances
Marking Sculpture G	Major trail turns, intersections, constricted segments
Marking Sculpture H	Major trail turns, intersections, constricted segments
Marking Sculpture I	Mileposts
Trail Sign in Rock	Trail sign locations
Rockery Wall	Retaining walls



Two-Man Striped Rock in rockery wall

Kit of Parts Fabrication

The construction drawings of the KOP components are collected together in a set of six sheets accompanying this book. This set of drawings was developed in conjunction with the design of Segment B of the L2S alignment. As mentioned earlier in this document, other configurations of the KOP components are also possible.

Pages A100 and A101 detail an overview of 11 preferred assemblies of the KOP components for use in the placements described in the previous section. Pages A102 through A106 are materials specific, divided into pages detailing wood, concrete and steel components and hardware. All material and product specifications are included on the drawings.

The KOP component materials and fabrication techniques are generally intended to be simple. The exception to this may be the casting of the concrete Striped Rock, Notched Rock and Striped Pebble.

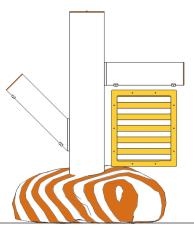
Our hope is that the molds for these three objects can be prefabricated, stored with their original positive forms at a King County Parks and Recreation facility and made available to segment contractors to reduce the cost and complexity of fabrication. We believe that available, well-crafted urethane and fiberglass molds will make the fabrication of these objects relatively simple.

Maintenance Overview

The KOP assemblies are intended to be low-maintenance. Made of common materials, each component can be treated like the other standard features of the trail's infrastructure. This means, for the most part, standard cleaning and graffiti removal methods. We hope, however, that any graffiti can be removed, rather than painted over.

Our intention is to keep the fabrication specifications and the various molds for the KOP components at some retrievable location at some King County Parks and Recreation maintenance facility. This would allow for the relatively easy refabrication of the parts, if any of them are damaged or decay beyond repair.

If possible, it may make sense to have a small inventory of replacement parts, particularly the precast concrete components, made at the time of initial fabrication. This would allow for the relatively easy replacement of parts throughout the trail alignment.



Marking Sculpture H

About the Artists

Jenny Heishman and Kurt Kiefer are both firmly rooted transplants to the Northwest and were excited to combine their experience of working as artists, project managers, and planners to research and design a Kit of Parts for the planned Lake to Sound Trail.

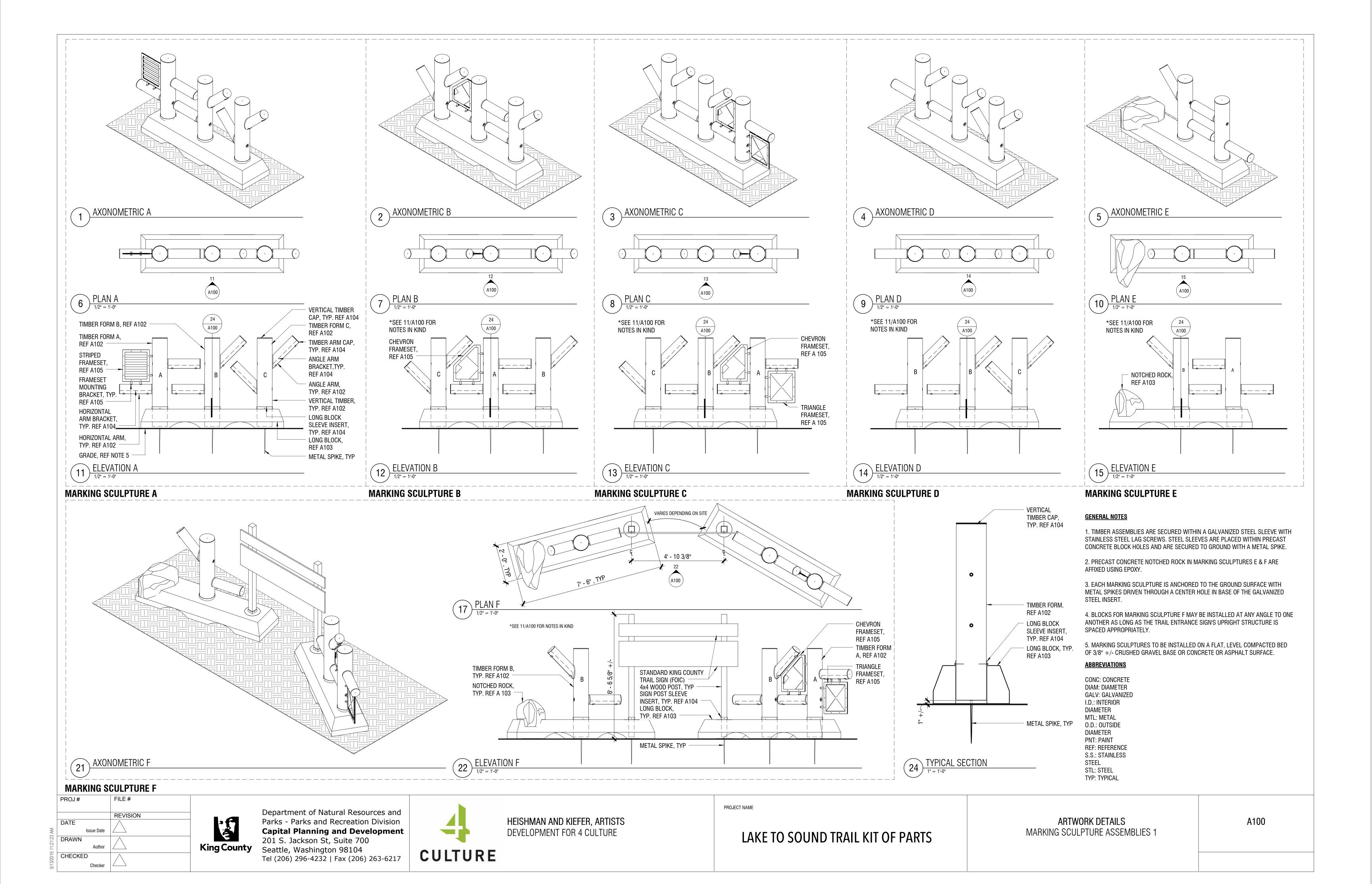
As a team, they bring many years of experience creating and developing publicly-sited art projects and value working with communities. Jenny and Kurt have previously collaborated on three separate projects: two in the South Lake Union neighborhood of Seattle, with Jenny as the artist and Kurt serving as project managers; and most recently, as members of a team planning opportunities for other artists along Sound Transit's East Link project extending light rail from Seattle to Redmond.

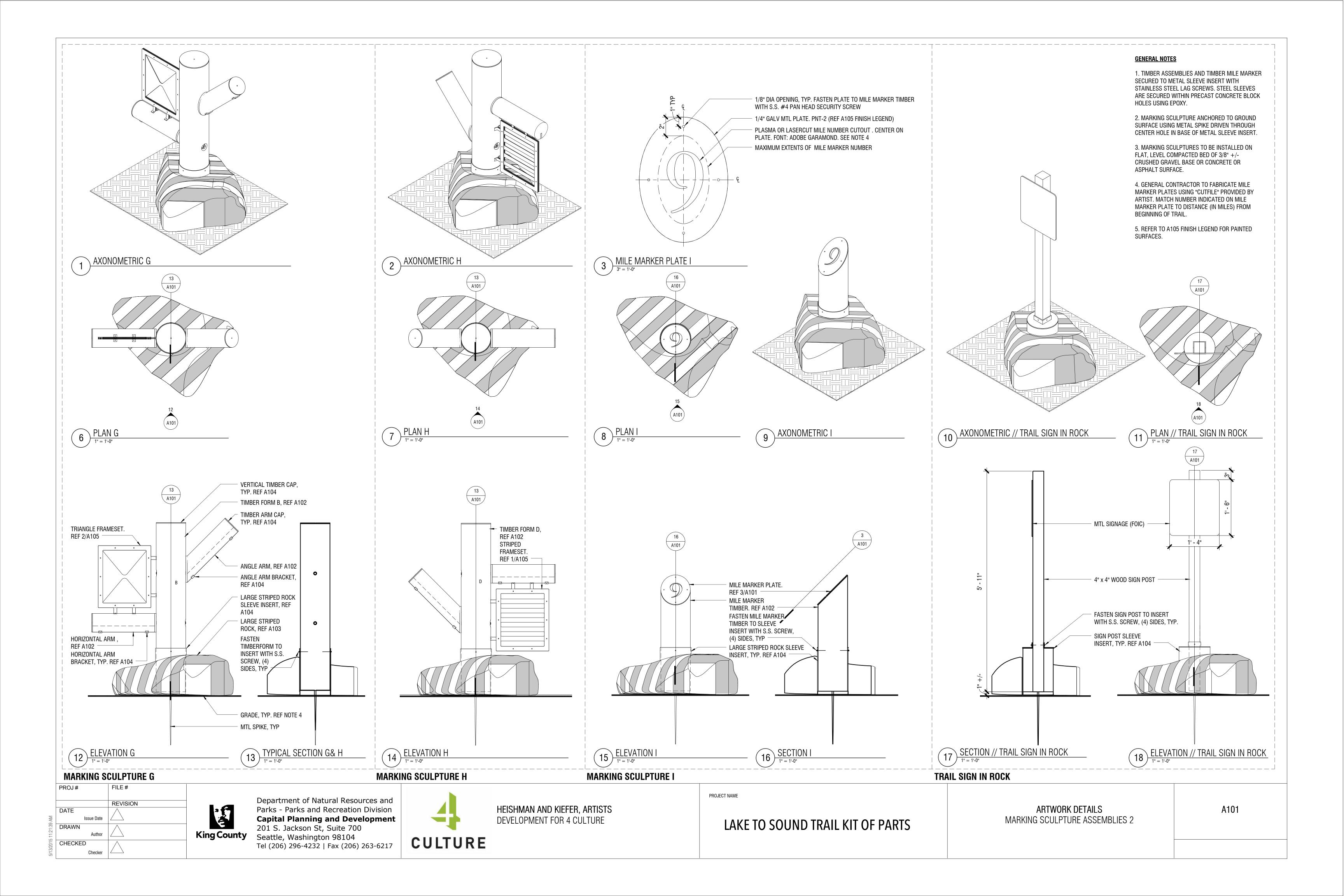
Jenny's work is known for playful gestures in which recognizable forms and materials are transformed into objects that reward the viewer with unexpected discoveries. Her work has been recognized with grants from Artist Trust (2005), 4Culture (2006), Artist Trust and Washington State Arts Commission (2006), PONCHO (2009), and in 2011 she was awarded the northwest regional Betty Bowen Award and a grant from the Pollock Krasner Foundation.

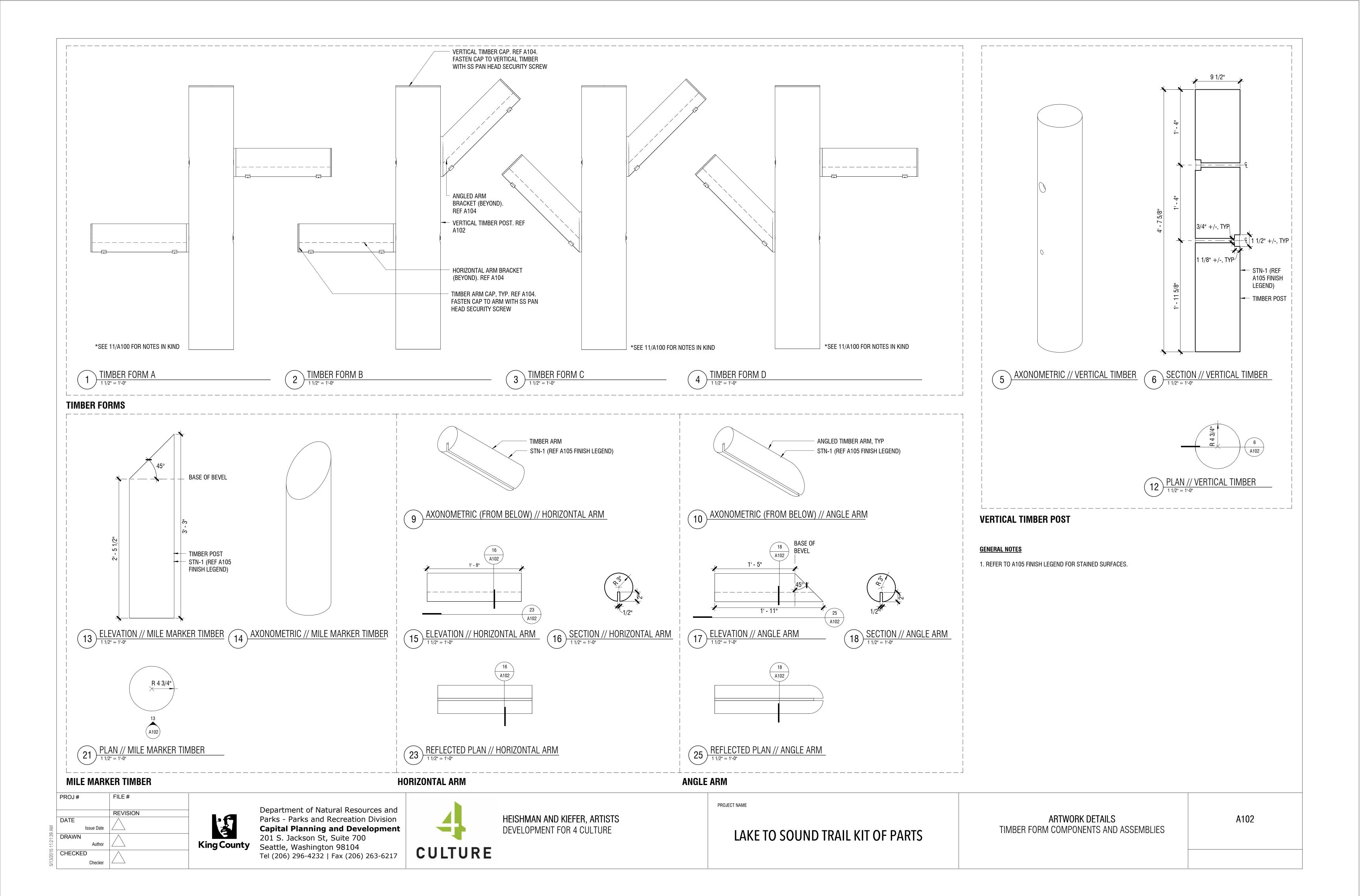
Over the last twenty-five years Kurt has designed and built theatrical scenery, carved gargoyles, worked in nonprofit arts galleries, led nonprofit boards, facilitated many public art projects and created his own sculpture and other artworks for exhibitions and public places.

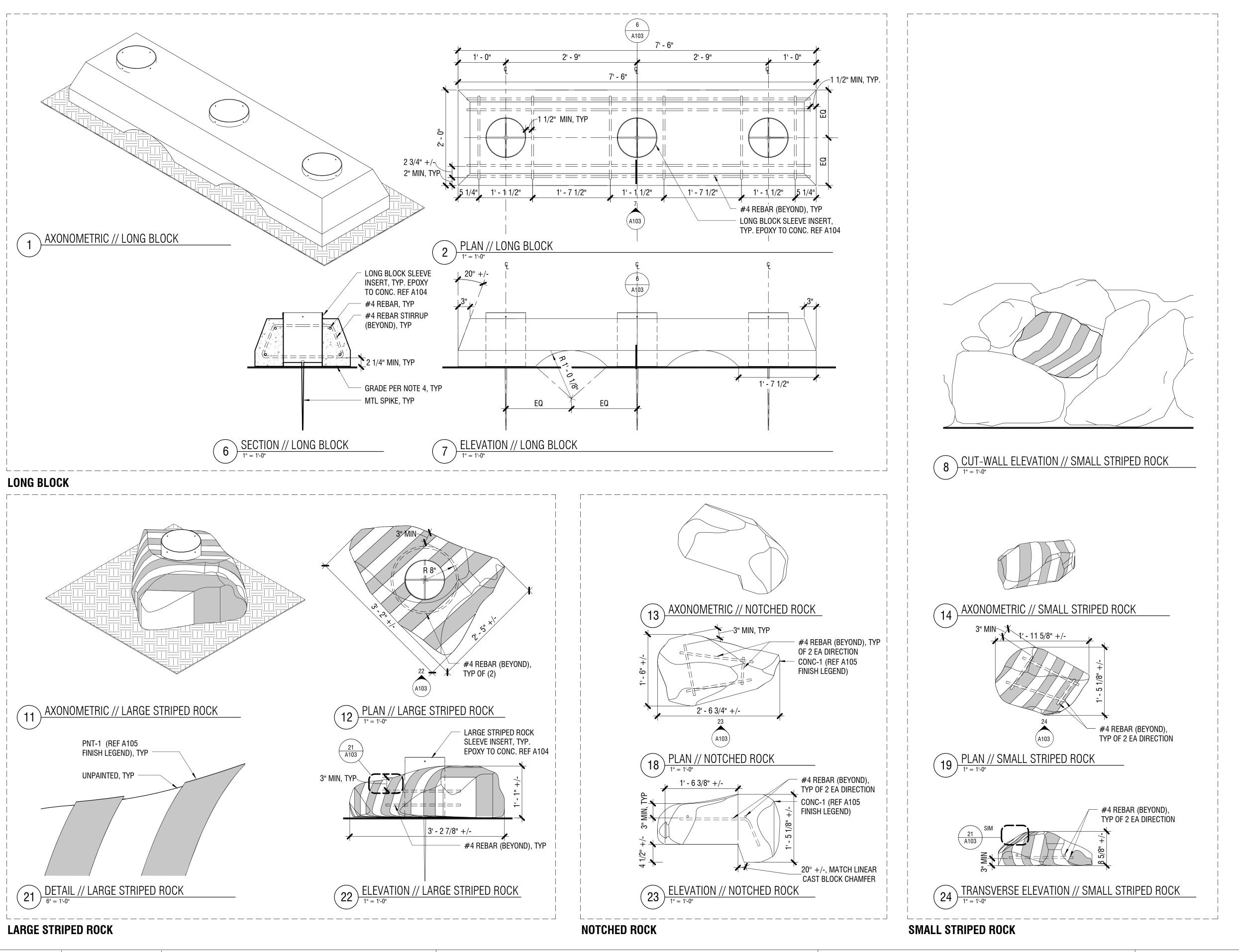
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CONSTRUCTION DRAWINGS









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PROJECT NAME

ARTWORK DETAILS
PRECAST CONCRETE COMPONENTS

GENERAL NOTES

INSTALLATION.

SLEEVE INSERT.

PAINTED SURFACES.

CONCRETE OR ASPHALT SURFACE.

1. FORM FOR PRECAST CONCRETE ROCKS TO BE PROVIDED BY OTHERS. GC TO PROVIDE MATERIALS, FABRICATION, FINISH, AND

2. ROCK STRIPES FORMED BY KERFS IN OUTER SURFACE OF ROCK.

3. MARKING SCULPTURE ANCHORED TO GROUND SURFACE USING METAL SPIKE DRIVEN THROUGH CENTER HOLE IN BASE OF METAL

5. REFER TO A105 FINISH LEGEND FOR PIGMENTED CONCRETE AND

4. MARKING SCULPTURES TO BE INSTALLED ON FLAT, LEVEL COMPACTED BED OF 3/8" +/- CRUSHED GRAVEL BASE OR

A103

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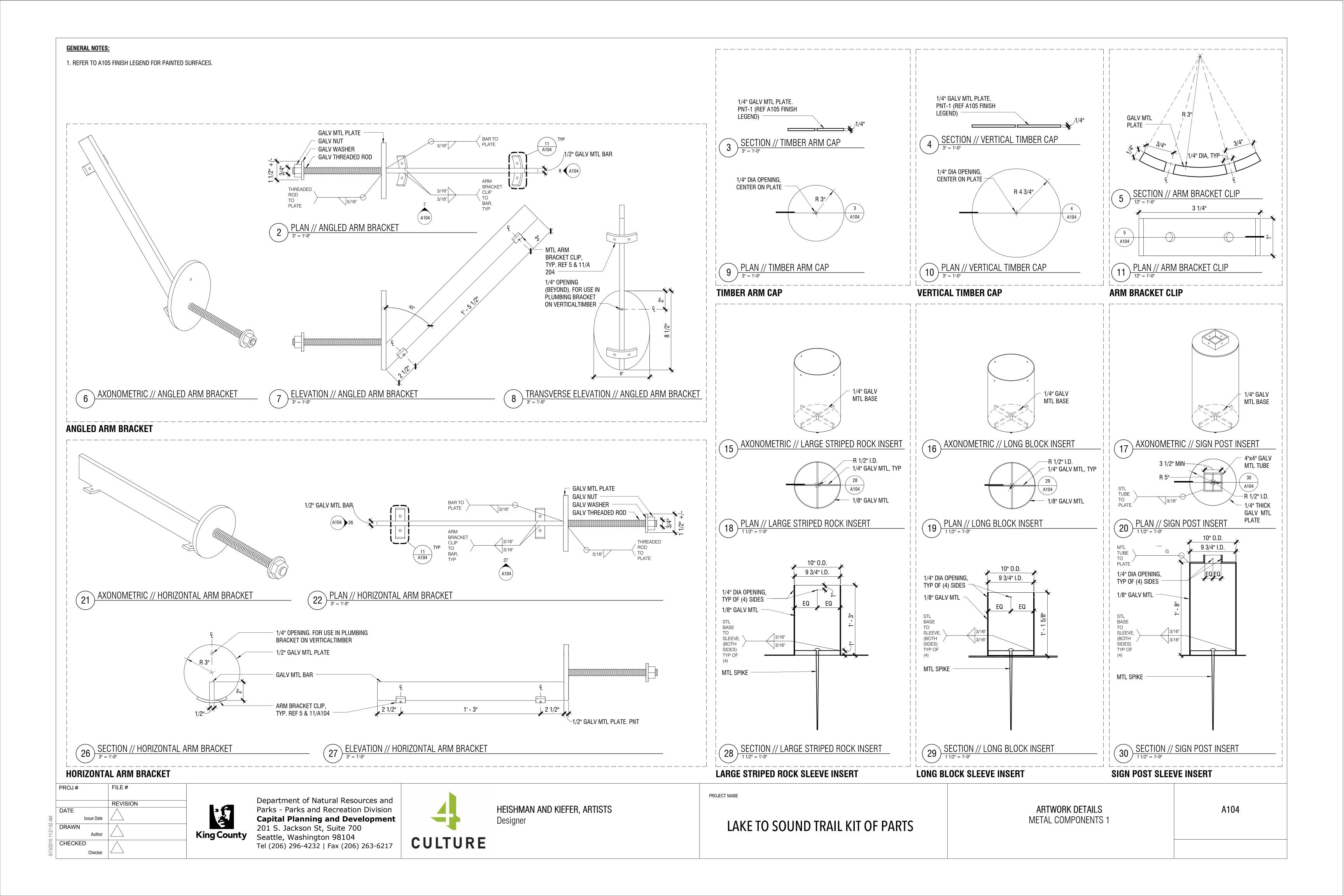
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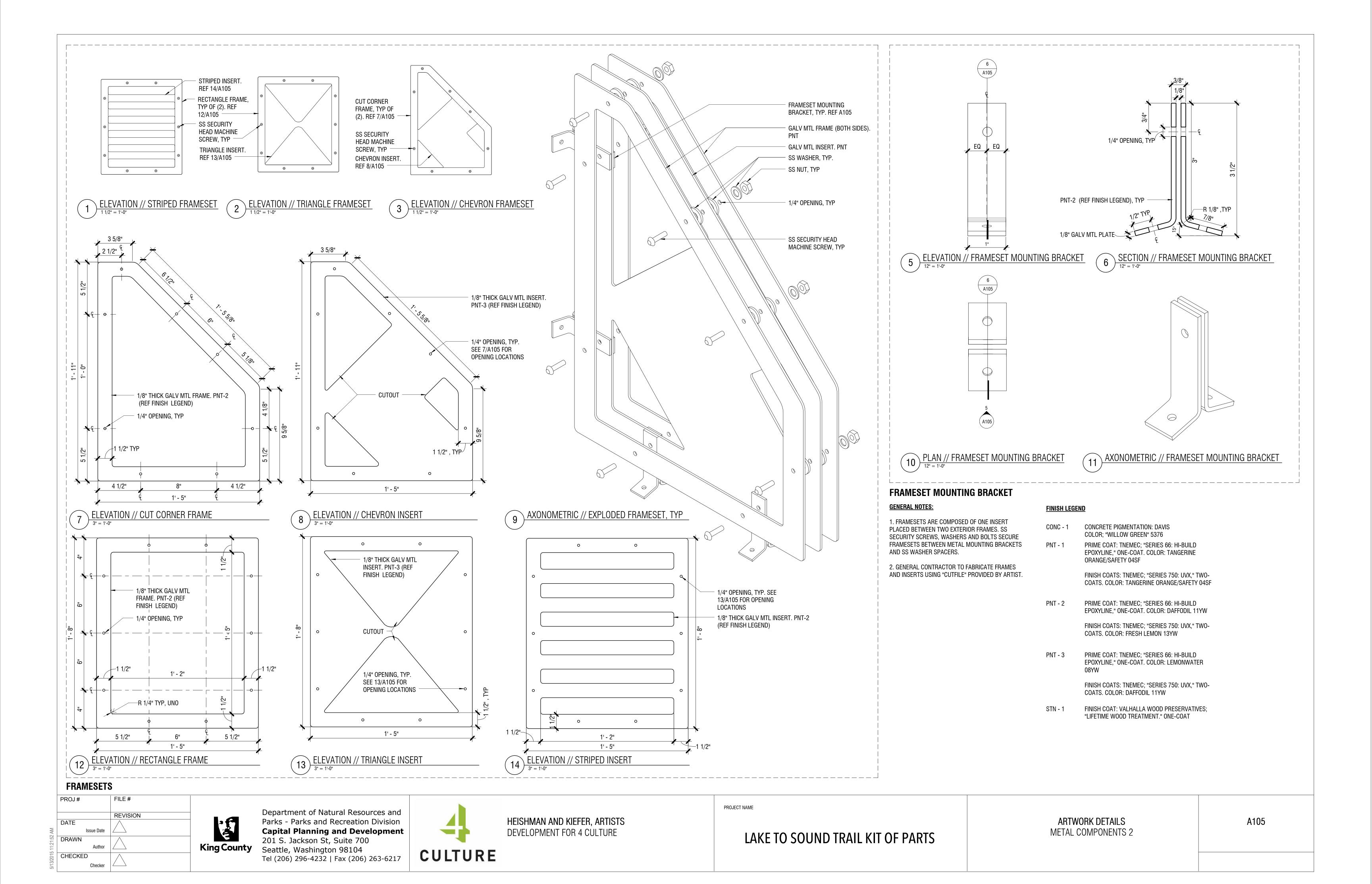
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HEISHMAN AND KIEFER, ARTISTS
Designer

LAKE TO SOUND TRAIL KIT OF PARTS





LAKE TO SOUND TRAIL KIT OF PARTS PROJECT

PROJECT ARTISTS Jenny Heishman and Kurt Kiefer



4CULTURE PROJECT MANAGER
Jordan Howland



PROJECT ADVISORS
Jason Rich and Robert Foxworthy
King County Parks and Recreation Division

PROJECT STAKEHOLDER ADVISORY GROUP

Todd Black (Renton), Stephanie Gardner (Tukwila), Lawrence Ellis (SeaTac), Gina Kallman (Burien) Rose Clark & Kitty Milne (Des Moines Memorial Drive Preservation Association)

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