

RESOLUTION 2011-TT

**A RESOLUTION OF THE EATONVILLE TOWN COUNCIL AUTHORIZING THE
MAYOR TO PURCHASE A SCALE MODEL OF THE NISQUALLY RIVER BASIN
USING FUNDS DONATED BY THE NISQUALLY TRIBE**

WHEREAS, The Town of Eatonville wishes to purchase a scale model of the Nisqually River Basin to be located in the town's visitor center building at the Eatonville Town Square;
and,

WHEREAS, The town has received a donation from the Nisqually tribe in the amount of \$28,000.00 for the purchase of a model as described on Exhibit A attached hereto, and,

WHEREAS, the model is a highly specialized and custom product for which only one manufacturer exists with the necessary qualifications and experience, and,

WHEREAS, the Town in consultation with the Nisqually tribe has identified Rauda Scale Models, INC. as the only manufacturer which has the necessary qualifications and experience to construct the type of scale model which the town seeks, and,

WHEREAS, the Town Council wishes to authorize the mayor to purchase a scale model and stand at a cost not to exceed \$28,000.00 including sales tax;

NOW, THEREFORE;

BE IT RESOLVED, by the Town Council of the Town of Eatonville that the mayor is hereby authorized to purchase a scale model and model stand from Rauda Scale Models, INC. at a cost not to exceed \$28,000.00.

PASSED by the Council of the Town of Eatonville at a regular meeting held this ___ Day of November, 2011.

ATTEST:

Raymond Harper, Mayor

Chrystal McGlone, Town Clerk

APPROVED AS TO FORM:

Patricia Buchanan, Town Attorney



NISQUALLY INDIAN TRIBE

4820 She-Nah-Num Drive S.E., Olympia WA 98513

October 31, 2011

Ray Harper
Mayor
201 Center Street
P.O. Box 309
Eatonville, WA 98328

RE: Letter of Understanding - Nisqually River watershed display model

Dear Mayor Harper:

Please accept this Letter of Understanding to memorialize the agreement between the Town of Eatonville (herein "Eatonville") and the Nisqually Indian Tribe (herein "Tribe"); the Tribe shall donate the sum of \$28,000.00 to Eatonville, for which Eatonville shall purchase the Nisqually River watershed display model (herein "model"), and provide maintenance and repair thereto. It is further agreed that the model shall be housed in the new Eatonville Visitor Center.

Upon receipt of the Tribe's donation, Eatonville shall enter into the written agreement with Rauda Scale Models Inc. (13711 Lake City Way NE, Seattle, WA. 98125, Ph: 206.365.8877) for fabrication and delivery of the model to Eatonville.

Don Perry and Jennifer Cutler of the Tribe's Natural Resources Department are available to provide additional, technical information to Rauda Scale Models Inc. as needed until completion of the model. Feel free to contact either Don or Jennifer at any time to confer about this project.

The Tribe is very excited about this ongoing partnership with Eatonville and is very appreciative for the creativity, dedication and forethought of all who have made this union possible.

Sincerely,

David Troutt

Director

Nisqually Natural Resources

RAUDA SCALE MODELS, INC. www.raudascalemodels.com

13711 Lake City Way NE, Seattle, WA 98125 * TEL (206)-365-8877 * FAX (206) 362-2400

November 3 , 2011

Don Perry
Outreach and Education Coordinator
Salmon Recovery Program
Nisqually Indian Tribe

Dear Mr. Perry,

Thank you for giving **Rauda Scale Models Inc.** the opportunity to provide a cost estimate for the Nisqually Watershed project.

Our company, in 49 years of operation, has completed over 8,000+ models for clients worldwide.

We specialize in 3-dimensional machined topographic scale models. These sizes range from small site models for architects and engineers, to large topographic maps for the National Parks, the Forest Service, BLM, the Fish and Wildlife Service, Bureau of Reclamation, State Museums, State Parks, Watersheds and other visitor centers. Relief maps for the required area are made by using information provided by the client, USGS topographic maps or DEM (digital elevation models). Rauda Scale Models, Inc. has been using DEMs to manufacture relief maps since 1997.

We have two CNC mills in our shop that we utilize to do this type of work. Our largest machine is 4 ft by 8 ft in size and is dedicated specifically to machine relief maps. We have completed jobs where the client has provided us DEM information and in other instances we have located the digital information ourselves.

In the last few years we have completed 40+ visitor center relief maps using DEM (digital elevation models) information and cut with our in-house CNC Router. The following have been made for National Park Service: Yellowstone National Park (16 ftx16 ft) with fiber optics and LED lights installed in June 2006, Mt Rainier with LED lights; Grand Teton National Park (12 ftx6.5ft) installed in 2007 Other recent relief models installed in NP visitor centers are: Valley of 10,000 Smokes, Alaska; Mt. McKinley and Denali National Park, Alaska; Haleakala, Lake Mead, Grand Canyon, Grand Mesa, Olympic Peninsula, Wrangell-St Elias, St. John, Virgin Island, Cabrillo National Monument.

For other public visitor centers, recently completed fiberglass cast relief maps include Lake Tahoe, Great Falls, Virginia, Lewis and Clark Caverns, MT and Whitewater Preserve, California, Buzzards Bay, MA, Glacier National Park, MT, White Sands NM, Smoky Mountains TN, Lanai Island HI, Big Hole Battlefield MT and Bandelier National Monument, NM.

Scale model exhibits for museums: Billiton Nickel Mine underground Australia; Toledo Zoo - reptile house exhibit; Tusayan Pueblo, Arizona, scale of 1"=3.3 ft., Park City, Utah ski area with underground mining tunnels; Model of Capitol building in Mississippi; Wildhorse Wind Farm, Washington; Desert Living Center Las Vegas 1"=4' 12 ft x 14 ft

We have extensive experience in various scales and vertical exaggeration. Based upon our 49 years of relief map making experience, we feel that there is no relief map job that Rauda Scale Models Inc., cannot effectively and accurately manufacture. In numerous projects, National Park Service has listed Rauda Scale Models Inc, as experienced company to contact for relief model work.

Please note the most important specification for the relief model is the request for a fiberglass, tactile model:

- Rauda Scale Models Inc. can provide a fiberglass cast and finished relief model
- All the relief maps we have made for the National Park Service are tactile; fiberglass cast & finished relief models.
- A fiberglass cast relief model is tactile, moisture resistant and easy to clean: with just soap and water.

Please review the procedure for manufacturing a tactile relief map.

FIBERGLASS CASTING - Making of a fiberglass casting is the more expensive, but most accurate method of replicating topography. The level of topographic detail we now achieve using digital data to run our CNC Router, is breathtaking. This technology easily surpasses the most attainable accuracy of the traditional USGS contour maps. In order to get the museum quality, tactile and durable topographic surface it requires a cartographer who is also a skilled model maker. There are vendors who have the ability to set up a DEM file for a CNC, but their skill set is restricted to programming. They are not cartographers and they are not craftsmen. The founder of Rauda Scale Models, Vigo Rauda, graduated from the University of Washington with a degree in cartography which is defined as "the study and practice of making geographical maps". This is our specialty.

RELIEF MAP

GENERAL DESCRIPTION OF WORK:

- Scale 1" = 4,400'
- Size 35.5" X 72"
- SUBMITTAL #1

Determine vertical exaggeration. We will send two options of vertical exaggeration. These will be actual 3- D machined samples of your terrain at the correct scale. Our price includes exaggeration up to 3X. At 2.5X Mt Rainier is over 8 inches tall and at 3X Rainier is almost 10 inches.

- Cut topography. Based on USGS maps, we will utilize digital files (DEM) to computer-cut the terrain with our CNC router.
- The map will be machined in solid blocks of high-density foam.
- Sand topography smooth as no steps or tool marks will remain. The terrain will look natural.
- Make a fiberglass casting of the pattern.
- The surface is then sandblasted and primed.
- SUBMITTAL #2

Make one painted sample (on a flat sheet of material) that shows boundaries, roads, rivers, lakes, labels and misted off site. Client to provide color choices for boundaries, roads, misted area and overall paint scheme in order to make this sample. There are no other samples included for the map.

- Once the color sample has been reviewed and approved we will begin painting the map.
- Show the boundaries seen on your rendering of 9/9/11. These will be dashed and yellow, green, orange or white. Client to choose color.
- Major roads to be 1/10" wide and all smaller roads to be 1/16". The number of smaller roads will be reduced so that the surface is not too cluttered.
- Show highway shields and numbers.
- Paint surface realistically. Airbrush using automotive lacquers.
- Map sides will be our standard dark color we've used on numerous displays.
- The area outside of the watershed will be very slightly misted similar to the rendering.
- Paint rivers and lakes.
- Apply labels per list. Client to provide a list and locate the labels on a map. All labels to be white Arial Bold. Please note that our proposal includes up to 80 labels. Your source rendering has over 400 labels. The labels on the rendering are roughly 11 point in size. Most visitor center maps have labels at 18 point and bold. One must keep in mind that elderly viewers will not be able to read narrow small fonts and they don't conform to ADA guidelines. Once the labels become larger they begin to crowd the map surface. That is why we recommend reducing the number of labels substantially in order to produce an exhibit that is informative as well as aesthetically pleasing.
- There may be a need to make the labels in the misted area be a shade of grey.
- No legend, icons or scale bar included in this price.
- Surface sealed with multiple layers of clear lacquer and made matte.

Lighting –fiber optics and LED lights with pushbuttons

This includes necessary transformers, power cords, wiring and momentary pushbuttons. Power into this model passes through a G.F.C.I. (ground fault circuit interrupt) into a surge suppressor which powers a regulated DC power supply. This system of safety and power conditioning features not only protects against power surges and anomalies but reduces maintenance and increases the use-full life of the electronics and lighting of this model. There will be one power cord that will have to be plugged in to make the system operational.

We will use pushbuttons that illuminate when depressed. This will help the visitor figure out which button is lighting up the map.

Fiber optics will be installed to show salmon migration within the watershed. Client has already provided one map for each species to be shown. (Chum, Chinook, Pink, Coho and Steelhead). There will be five separate pushbuttons that will illuminate five separate lines of light. If one button is depressed the other four will be locked out and not operational because the salmon migration paths overlap.

Fiber optics will be .040" diameter and illuminated as a white light.

Fiber optics will be spaced at 1/2" intervals along the river bed. This will be in the range of 300 - 350 fiber optic points.

All components will be secured to the underside of the map. Pushbuttons will be secured in the model stand and everything will be operational before the map and stand leave our shop. All you will have to do is set the display in place and plug it in.

COST \$23,300.00 plus Washington sales tax

MODEL STAND

Overall design still to be agreed upon. The goal is to keep our cost below \$4,700. This may entail not having as many doors and drawers and building it of laminate instead of wood. TBD.

NOTE: this price does not include any text or images on the angled rail with pushbuttons because that has not yet been designed. This could be silk-screened or a High Pressure Laminate. TBD.

Once the pushbutton rail has been designed we can price it, build it and install the pushbuttons and test the lighting.

We will not start any work on the stand until all features have been designed and the cost agreed upon.

Estimated cost of model stand \$4,700 plus sales tax.

- Audio is not included. I quoted this in a previous email.
- Delivery is not included.

TO DO THE WORK:

- We will use the provide maps to locate roads, boundaries and salmon/steelhead species.
- Client to provide one revised map that has only 80 labels located.

Inspection of work:

Visit by the client to our shop and/or photographs of work done sent to the client for inspection and approval before shipping or delivery of the model exhibit.

Please note that when you are considering our proposal:

- Rauda Scale Models Inc. has been in the business of making scale model exhibits since 1960 - the same location since 1970.
- Every year we are awarded relief map jobs by the National Park Service, and/or other government agencies that are on competitive bid bases.
- Currently we are working on relief map for Great Falls, Virginia and proposal for 3 ft diameter globe with topography in relief as well as numerous smaller projects.

- Recently we delivered and installed, size 16 ft x 16 ft, Yellowstone National Park relief model in Canyon Visitor Center, Yellowstone, Wyoming with 2000 points of fiber optics and 50 LED lights; Denali National Park relief map project, Wild Horse Windfarm, Eastern Washington, Grand Teton National Wildlife relief map; for State of Nevada, Lake Tahoe relief model with 300 points of fiber optics to show trails and LED's for points of interest. In 2005 - delivered & installed in Coldfoot, Alaska Visitor Center a topographic half dome model showing Northern Hemisphere and open contour, fiberglass cast relief map of Mt. McKinley and Denali National Park, Alaska.
- Please see, below, list of relief maps produced by Rauda Scale Models, Inc.
- **We have a staff of 8 model makers and a reputation of meeting scheduled deadlines**
- Cost is an important issue, but be wary with regard to quality. In the past we have been hired to repair relief maps made by other companies for a combined total of \$ 33,000. - In one case, the map surface began to peel off within a year of completion and therefore the entire model had to be rebuilt.
In another case, a different model maker kept missing the deadlines set by the client and the client finally had to relinquish the job to RSM.
- It is probable that Rauda Scale Models Inc in its 49 years has made more topographical models than all of the other companies in the United States combined.
- Please visit our web site:
www.raudascalemodels.com

TERMS: 1/3 down payment to begin work, 1/3 progress payment once the map has been fiberglass cast and we've started the painting process with the balance due upon completion of work at our shop. Additions and changes to this scope of work, based on the information provided, will be charged for labor at an hourly rate plus materials. Unfinished or incomplete drawings/information that requires design work on our part will be billed at an hourly rate. No change or additional work will be performed without client's approval or request. Additions and/or changes to finished model will be billed at an hourly rate, and will not be initiated until the full amount for the original scope of work has been paid. Cost for photocopies, enlargements, reductions not included if at-model-scale drawings have been requested. All work must be approved prior shipping. We will send detailed photos for you to review each label, road, river etc.

All payments are due in 15 days.

ACCEPTANCE OF PROPOSAL for (Nisqually Watershed)

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Date of Acceptance: _____ **Purchase order #** _____

Signature: _____ **Print name:** _____

Please FAX us back signed "Acceptance of proposal".

Please let me know if you have any further questions, call us at 206-365-8877 or FAX us your questions at 206-362-2400.

Sincerely,

Sigurds Rauda

RAUDA SCALE MODELS, INC. EXPERIENCE

PLEASE SEE OUR WEB SITE: www.raudascalemodels.com

Exhibits made by Rauda Scale Models Inc. with fiber optics and LED lights:

- Yellowstone National Park, 15 ft x 16 ft, with fiber optics and LED lights
- Lake Tahoe, Nevada State Parks, 3 ft x 4ft with fiber optics and LED's
- Lake Tahoe, City of South Lake Tahoe, with LED lights
- Glacier National Park, St Mary's Visitor Center 5 ft x 5.6 ft with fiber optics & LED's
- Mt. Rainier National Park, 5 ft x 5 ft with LD lights for Wonderland trail, etc.
- Mt. Washington, New Hampshire with LED lights
- Heyburn State Park, Idaho with fiber optics and push buttons –3.5 ft x 6 ft
- Santa Barbara Channel, Santa Barbara Maritime Museum, California with fiber optics and L.E.D. lights – 5 ft x 10ft.
- King Salmon, Alaska – with fiber optics showing migration of salmon – 4 ft x 7 ft
- Lake Mead Recreation area with fiber optics showing expansion of Las Vegas and LED lights for points of interest - 6.5 ft x 15.5 ft
- Priest Lake State Park, Idaho with fiber optics and LED lights – 4 ft x 6 ft
- Pinnacle Mountain State Park, Arkansas with fiber optics and LED lights - 5 ft diameter
- Missouri River Basin, Nebraska with fiber optics and LED lights – 6 ft x 6 ft
- Porcupine Mountain State Park, Michigan with L:ED lights - 5 ft x 7 ft
- Mouth of Columbia River for Lewis & Clark Interpretive Center, Fort Canby, WA with LED lights for sunken ships – 8 ft x 15 ft
- Mt. Hood, Oregon with fiber optics and LED lights – 5.5 ft x 7.5 ft
- North Cascades National Park, Washington with LED lights – 5.3 ft x 9 ft
- New Zealand with fiber optics - 8 ft x 12 ft.
- Map of the World with LED lights for major cities - 8 ft x 16 ft

Rauda Scale Models Inc. work is represented by the following tactile

relief terrain models for National Park Service Visitor Centers:

- Yellowstone National Park, Canyon Visitor Center, Wyoming; seamless 15 ft x 16 ft
- Mt. McKinley and Denali National Park, Alaska, tactile - open contour exhibit; scale 1"=6700' and 12 ft diameter
- Denali National Park, Alaska, scale of 1"=2000' and 11 ft diameter
- Glacier National Park – in 2 visitor centers
- Mt. Rainier National Park – in 4 visitors centers + new one with LED lights

- 5 Channel Islands, National Park Visitor Center, California
- Mouth of Columbia River for Lewis & Clark Interpretive Center, Fort Canby V.C., Washington
- Valley of 10000 Smokes, Katmai National Park, Alaska
- Grand Mesa, Colorado
- St John, Virgin Islands
- Cabrillo National Park, California
- Wrangell-St Elias National Park and Preserve, Alaska
- Bathymetric relief model of Olympic Peninsula and Continental shelf – original relief map and 5 cast & painted copies
- Grand Canyon
- Grand Canyon geological column , 4ft x6.5 ft - 2 castings
- Zion National Park
- State of Alaska and Bering Sea – in 5 visitor centers
- Glacier National Park, Montana – in 2 visitor centers
- Craters of the Moon, Idaho
- Redwoods National Park, California
- Greater Yellowstone National Park and Forests
- Big Island, Hawaii and Haleakala, Maui showing lava flows
- Puukohola, Hawaii
- Lake Chelan, Washington
- Canyonlands, Utah
- Olympic National Park – 5 visitors centers
- Crater Lake National Park, Oregon
- North Cascades National Park, Washington
- John Day Fossils Beds, Oregon
- Clearwater River (Lolo Pass) Idaho
- Half globe of Northern Hemisphere for Coldfoot, Alaska - 10.5' diameter
- Lassen Volcanic Park

Other Tactile Relief Models:

- Madrona Marsh Nature Center relief map for City of Torrance, California
- North Cascades for Seattle City Light visitor center, Newhalem Washington
- Wanagon Basin, Indonesia, Freeport-McMoRan Company, Louisiana
- Dead Horse Point State Park, Utah
- Snowbasin Ski Area and Wasatch & Cache National Forest area for Snowbasin Discovery Center, Utah
- Mining Exhibit, Indonesia.
- Island of Rota (Luta), Northern Mariana Islands. Original & 5 vacuum formed copies at scale of 1" = 2,600' and a fiberglass cast tactile relief map at scale of 1" = 1000'
- Lava Beds, California
- Kitts Peak, California
- World map for the Blind
- Relief map of Venezuela
- Relief map State of New Mexico
- Hoonah Indian Reservation, Alaska
- Saipan and Tinian Islands for the American Memorial Park exhibit.
- Kikapoo Valley Reserve and State Park, Wisconsin

- Mt. Hood watershed, outdoor exhibit, Oregon Zoo, Portland, Oregon
- Eagle viewing in Northwest States relief map exhibit, Oregon Zoo, Portland, Oregon
- John Day Fossils Beds, Oregon

OTHER INFORMATION ON RAUDA SCALE MODELS, Inc.

RAUDA SCALE MODELS, INC. www.raudascalemodels.com
 13711 Lake City Way NE, Seattle, WA 98125 * TEL (206)-365-8877 * FAX (206) 362-2400

**SUBCONTRACTOR FOR SCALE MODEL EXHIBIT AND RELIEF MAP
 WORK CONTACT INFORMATION:**

- Rauda Scale Models, Inc.
- 13711 Lake City Way NE, Seattle, WA 98125
- Telephone: 206-367-8877
- **Rauda Scale Models Inc. is a SMALL BUSINESS, incorporated in State of Washington**
- TIN # 91-167-6337
- Dun's # 055-499255
- Registered with US government Central Contractor Registration agency.
- Washington State UBI # 601-610-286
- **Certified Women's Business Enterprise in State of Washington**
- Contact person and manager is Sigurds Rauda for topographic relief model projects, Gunars Rauda for architectural and technical model projects or Vija Rauda, contract administrator.
- 10 full time professional model makers employed by Rauda Scale Models.
- Fax: 206-362-2400
- E-mail: rauda@qwestoffice.net
- WEB site: www.raudascalemodels.com
- Job estimating is based on previously completed work, that is, historical, or "actual cost of work process"
- Inspection and acceptance of finished work can be done in person in our shop or with photographs or video sent to client.
- Model shop at present location since 1970
- Rauda Scale Models Inc. **Model shop area – 9000 sq.ft.**
- Equipment for model making includes: Laser Cutting machine, CNC topographic relief model machine and contour cutting machine, CAD/CAM 3-D milling, various metal shop power tools, wood working power tools and spray painting room with all necessary spray painting equipment (see list).

RAUDA SCALE MODELS, INC. - REFERENCES

Project: Santa Cruz Island 1-08

Location: Scorpion Ranch Visitor Center, Santa Cruz Island

Model size: 52" diameter Scale: 1" = 700' Vertical exaggeration 1.5X

Description: Fiberglass casting, finish painted and labeled. Outdoor setting below canopy.

Completed: May 2008

Customer: Exhibitology
Richard Rew
80 George Street
Paterson, NJ. 07503
973-523-0033 phone
973-523-3331 fax
exhibitologyrr@mac.com

Project: Yellowstone Solicitation # N1572050015 or possibly 02-050403
88-05

Location: Canyon Visitor Center, Yellowstone National Park

Model size: 15' x 16' Scale 1" = 2,100' Vertical exaggeration 2X

Description: Fiberglass casting, finish painted and labeled. Model made in three pieces with a consistent seam of .04" wide. Thousands of fiberoptics and LEDs programmed and installed by RSM. Lighting is synchronized to audio. Audio by others. Installed on site by Rauda Scale Models staff.

Completed: July 2006

COR: Harpers Ferry Center
67 Mathers Place
Harpers Ferry, WV. 25425

Paul Koehler
304-535-6243 phone
304-535-6251 fax

Customer: Pacific Studios, Inc.
Grant Clover
5311 Shilshole Avenue NW
Seattle, WA. 98107

206-783-5226 ext 115 phone
206-783-5409

Project: Katmai, Valley of 10,000 Smokes

37-04

Location: Katmai National Park

Model size: 4' x 4' Scale 1" = 2,600' Vertical exaggeration 1.6X

Description: Fiberglass casting, finish painted and labeled. Fine texture applied to lava flow. One peak has a removable top to demonstrate what is looked like before eruption. RSM also built the model stand. Crated entire project and shipped to Alaska.

Completed: July 2004

COR: Katmai National Park
#1 King Salmon Mall
King Salmon, AK. 99613

Chief of Interpretation
Roy Wood
907-246-2122 phone
Roy_Wood@nps.gov

Project: Mount Rainier NP

Location: Mt. Rainier National Park, Paradise visitor center

Model size: 5' x 5' Scale 1" = 2,200' Vertical exaggeration 1.5X

Description: Fiberglass casting, finish painted and labeled. Hundreds of LEDs installed by RSM to show hiking trails and points of interest.

Completed: September 2008

COR: Mt Rainier National Park
Paradise Visitor Center
Tahoma Woods, Star route

Ashford, WA. 98304

Interpretive media specialist
Patti Wold
360-569-2211 ext 3327 phone

Customer: Color Ad
Glen Zook or Don Grogan
7200 Gary Road
Manassas, VA. 20109
703-631-9100 ext 127 phone
703-631-7849 fax