

❖ Meet the BD Team ❖

❖ **Peter Axelson**, founder and Director of R&D, leads BD and spends much of his time traveling throughout the world to attend meetings and present our work. He's also a pilot and avid mono-skier.

❖ **Denise Yamada Axelson**, Director of Research, coordinates the research at BD and assists with technical writing and grant proposals. She loves to play volleyball.

In October, Peter and Denise were joined in marriage at their church in Santa Cruz. They enjoyed a short honeymoon in the Sierras.

❖ **Allen Siekman**, Director of Seating & Design, oversees the seating and design projects. He collects and restores antique cars and motorcycles and coaches youth softball teams.

❖ **Khrys Kambitsch**, Administrative Assistant, assists on various projects and helps the office run smoothly and efficiently. She enjoys all things creative, and hopes to one day be an elementary school teacher.

❖ **Seanna Kringen**, Research Assistant, has a background in physiological sciences, and assists on the research components of our projects. She enjoys swimming and hiking with her husband and three children.

❖ **Malou Manalo**, Bookkeeper, is in charge of BD finances. When she's not crunching our numbers, she enjoys shopping, especially adding to her collection of 250 Beanie Babies.

❖ **Matt McCambridge**, Design Engineer, is part of the BD design team. He enjoys the mountains and ocean cliffs of Santa Cruz.

❖ **Kathy Mispagel**, Project Coordinator, is developing the UTAP Train-the-Trainers

program and manual as well as the Trail Data Processing Software known as TrailWare. She enjoys swimming and making scrapbooks.

❖ **Tim Pratt**, Administrative Assistant, helps out on our UTAP and surface measurement projects. He is also a published poet and fiction writer.

❖ **Oliver Rahm**, Network Administrator, oversees the phone system and keeps the computers running smoothly. A citizen of both Switzerland and the U.S., he holds a degree in electronics and enjoys kite surfing.

❖ **Stacy Rose**, Research Assistant, works on a variety of projects at BD. She is a performing singer/songwriter who also loves to run and bike in the beautiful Santa Cruz mountains.

❖ **John Tipton**, Facilities Manager, oversees the upkeep of our facilities as well as helping with welding and the testing of assistive technologies. In his free time, he enjoys dancing and bowling.

We would like to thank past employees Julie Kirschbaum, Tamra Martin, Jeremy Smith, Julie Stein, and Joe Ysselstein, whose work on our projects was invaluable. We also wish to thank consultants Clay Butler, Phil DiSalvo, Mike Groh, Patti Longmuir, Joan Lowden, Jamie Noon, and Mark Richter, who have made significant contributions to our projects this year. We are grateful to our technical consultants Arne Folkedal and Jeff Liebermann, and to Debbie Hickey for her wonderful work keeping our office clean and tidy. Thanks also to Natalie Smith and volunteer Volker Weiss for their support.



Working toward universal design through research, design & education

December 2000

Dear Friends & Supporters:

And so we come to the end of another year of changes, challenges, opportunities and accomplishments. The new year will bring even more change, as Beneficial Designs moves its main office to Minden, Nevada. Minden is located near Lake Tahoe, just south of Reno. We are very excited about the new opportunities this presents. We will be maintaining a Design Center in Santa Cruz, California.

We would like to share with you a few of the projects we've been working on this past year, and to thank you for your continued support and interest in our work. All of us here at BD would like to wish you a joyful holiday season.

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|-------------------|------------------|
| Peter Axelson | Matt McCambridge |
| Denise Y. Axelson | Kathy Mispagel |
| Allen Siekman | Tim Pratt |
| Khrys Kambitsch | Oliver Rahm |
| Seanna Kringen | Stacy Rose |
| Malou Manalo | John Tipton |

Funding agencies and other acronyms:
DOT FHWA = Department of Transportation, Federal Highway Administration
NIH = National Institutes of Health
RESNA = Rehabilitation Engineering and Assistive Technology Society of North America
SBIR = Small Business Innovation Research
USDA = United States Department of Agriculture

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Where's Minden?



Canoe Seating System

NIH, SBIR Phase I Grant #1R43 HD36944-01A1
Allen, Denise, Stacy, Seanna & Peter

A prototype seating system for use in canoes was fabricated, and user evaluations were completed in collaboration with Wilderness Inquiry in Minneapolis. We are now in the process of analyzing the data from these trials, and in April of 2001 we will be submitting an application for a Phase II grant to further develop the seating system.

UTAP Coordinator Workshops

Kathy, Peter, & consultant Patti Longmuir

This year 49 individuals were trained as Universal Trail Assessment Coordinators. Sessions introducing the benefits of UTAP were presented at several conferences including the Western Trailbuilders, California Parks, West Valley College, the National Trails Symposium, and the National Recreation and Park Association. The Florida Trail Association and Georgia Department of Natural Resources have begun using the UTAP, joining other state programs (California, Indiana, and Minnesota) that have implemented Statewide use of the UTAP.

Training Program for UTAP Trainers

USDA, SBIR Phase II Grant #00-33610-9415
Kathy, Peter, & consultant Patti Longmuir

Materials are being developed to provide training that will prepare Certified Trail Assessment Coordinators to teach UTAP Workshops. The project Advisory Board met at the National Trails Symposium and the National Recreation and Park Association conferences to continue project planning.

TrailWare: UTAP Software

NIH, SBIR Phase II Grant #2R44 HD36538-02
Kathy, Peter & consultants Mike Groh, Joan Lowden & David Matzner

Funding was awarded in May to continue development of TrailWare, the data processing software for the UTAP. Two database programmers, Mike Groh and Joan Lowden, are working with Beneficial Designs to develop the software. Several agencies and organizations have been evaluating the program to assist in developing a product that will be useful for all who are using the UTAP. Plans are underway to add modules that will identify compliance with design guidelines as well as reports for trail managers and signage for trail users.

Trail Explorer Web Site

DEd SBIR Phase II Grant #ED-98-CO-0046
Peter & Julie Stein

Development of Trail Explorer, the searchable website for trails that have Trail Access Information, was completed this year. Additional work will continue on the site to emphasize trails across the nation that have been assessed using the UTAP and to provide Trail Access Information to users.

Sidewalk & Trail Design for Access

DOT FHWA, Contract #DTFH61-97-C-00028
Julie K., Julie S., Peter & consultant Patti Longmuir

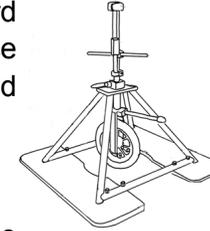
Beneficial Designs completed work on the document, *Designing Sidewalks and Trails for Access: A Best Practices Design Guide*, which will be published by the Federal Highway Administration early in 2001. This document was a follow-up to *A Review of Existing Guidelines and Practices*, which was published in September 1999.



Surface Accessibility

NIH, SBIR Phase II Grant #2 R44 HD30979-02
Denise, Stacy, Peter, Joe Ysselstein & Jeremy Smith

The design development of the Rotational Penetrometer was completed this year and it is currently being distributed by Beneficial Designs. This portable tool can measure the firmness and stability of trail surfaces, carpet, and other pedestrian routes. Denise is chairing the RESNA subcommittee that is developing a national standard test method for surface firmness and stability based upon the use of this device.



Design Consulting

We have continued to provide testing and design services on a consulting basis for the seating and wheeled mobility industry. Peter and Allen have led the design team on several projects this year.

Technical & Wheelchair Standards

Paralyzed Veterans of America
Peter, Denise, Julie Stein, & Khrys

At this year's RESNA conference in Orlando, the Technical Guidelines Committee was promoted to a Technical Standards Board. As Chair, Peter oversees the work of all RESNA standards subcommittees. Peter was re-elected as Chair and Denise as Secretariat of the RESNA Standards Subcommittee on Wheelchairs. Peter also continues as Convener of the International Standards Organization Working Group on Wheelchair Test Methods. Beneficial Designs will be hosting the ISO Working Group meetings in May 2001 at Chico Hot Springs in Pray, Montana.

Wheelchair Seating Standards

Allen, Denise & Peter

Allen was elected as Chair of the RESNA Standards Subcommittee on Wheelchair and Related Seating. The subcommittee will develop a working draft ISO standard by February of 2001. This standard will cover terms and definitions, and testing of postural support devices and seat cushions.

Ski Area Accessibility

Peter continues to consult for the ski industry, helping to make their facilities and programs more accessible. He is also chairing a subcommittee that is developing a RESNA standard on adaptive ski equipment.

International Appropriate Technology

RESNA Special Interest Group (SIG-17)
Denise, Peter, Matt, Khrys

This year we planned and coordinated numerous activities held in conjunction with the annual RESNA conference, including the SoreButts International Wheelchair Cushion Design Competition to encourage the development of low cost cushions using appropriate materials. Matt presented a paper and led a roundtable discussion, and Denise and Peter had poster presentations concerning assistive technology in developing countries.

Tools for Life

Beneficial Designs recently incorporated a new not-for-profit organization named *Tools for Life*. The mission of this organization is to provide information on people and organizations that facilitate the provision of mobility equipment and adaptive seating to persons with disabilities in developing countries.