

2025 Past Year in Review Newsletter

Dear Friends and Supporters,

Here we are already nearing the end of 2025. Everyone at Beneficial Designs (BD), has been busy focusing on sidewalk, trail, and rest stop assessments. We continue to work on research projects, standards development, and wheelchair testing. We are also continuing to do presentations and work collaboratively with students to develop improved technologies and inspire students toward engineering and accessibility.

With the development of the Manual Efficient Trail Assessment Process System (METAP), we have been able to provide a more affordable option to assess trails using the Digital Tread Squared (DT²).

Our work for NDOT has continued statewide. The sidewalk assessments have been completed and the NDOT now has the data to work on their next steps. The rest stop assessments are mostly complete and our team is now working to get the data and individual reports to NDOT.

We continue to work with US air carriers, wheelchair manufacturers, and disability groups to standardize how mobility devices should be handled during air travel. Peter Axelson gave three presentations this year in relation to air travel. As the next sections of the standard go through final review and publication, we hope this will reduce damage to mobility devices and make the air travel process more efficient. We are also excited to announce a new invention: the Padded Tipping Plate™. This new, patent-pending technology has the potential to drastically improve the way air carriers tip powered wheelchairs to fit into aircraft with short cargo doors and ensure access to all flights, no matter the aircraft, for passengers who rely on powered wheelchairs for mobility.

Peter Axelson attended the PVA Summit in Anaheim, California. He provided a presentation titled “Me and My Wheelchair Are Always One until We Travel by Air—Empowerment through Preparation.” In this dynamic presentation, Peter outlined how passengers who are non-ambulatory can plan and prepare for the air travel process. This was a well-attended presentation resulting in requests for follow-up presentations. In May 2025, we attended the Move United conference in Park City, Utah. We gave presentations all about how the HETAP system works, from calibration to station capture, assembly, and more. We also provided information on integrating TAI data into digital trail databases.

This year has been a successful year with several HETAP trainings and continued work for rest area assessments for NDOT.

Thank you for your continued interest in our work. We wish you the very best for 2026!



Projects

Wheelchair Testing & Design

Being accredited as an ISO 17025 test lab by ANAB has allowed us to continue to provide confidential wheelchair testing for the manual- and powered-wheelchair industry. This includes the following national and international standards: RESNA WC-1, WC-2, and WC-3; ISO 7176; ISO 16840; PDAC; EN 12183; and EN 12184. Standardized test procedures are used to verify that mobility devices are safe for the end user. BD has helped dozens of manufacturers improve their products to meet and exceed the minimum requirements. We have also improved our quality management systems ensuring client satisfaction.

For more test information and to view BD's accredited scope of services please visit www.beneficialdesigns.com or contact mail@beneficialdesigns.com.

Public Right-of-Way Assessment Process (PROWAP) to Determine Accessibility

US DOT #DTRT57-08-C-10058 & DTRT57-10-C-10081

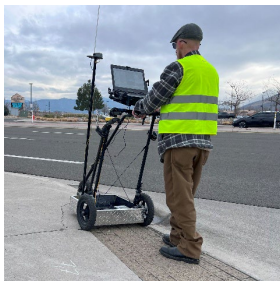


Beneficial Designs developed the semi-automated Public Right-of-Way Assessment Process (PROWAP) that enables assessment coordinators to systematically identify problematic elements within the pedestrian environment, such as steep curb ramps, severe cross slopes, vertical discontinuities (tripping hazards), and pathway obstructions. We are able to reduce the time to perform assessments by up to 80% of the time generally required to perform assessments manually. The system uses wireless devices to measure vertical discontinuities and make linear measurements of features and sidewalk panels. We offer sidewalk assessment

services throughout the US and continue to assess college campuses, metro stations, rest stops, and all aspects of public sidewalks. On September 3, 2024 the final rule for the Public Right-of-Way Accessibility Guidelines (PROWAG) went into effect. Now government construction will require training for employees to adhere to these new standards. For more information, explore our [sidewalk assessment web pages](#).

ADA Assessment of Nevada DOT Public Rights-of-Way

NDOT 239-20-052



At the end of June of 2025, Beneficial Designs completed a four-year contract with the Nevada Department of Transportation to perform ADA and PROWAG assessments of sidewalks in the NDOT public right-of-way. During the last two years, Beneficial Designs implemented the Public Right-of-Way Assessment Process (PROWAP) to collect line data alongside the NDOT ArcGIS Field Maps app feature data collection. The NDOT ADA Sidewalk and Feature Collection process now collects comprehensive feature and line data to provide a complete self-evaluation of pedestrian access routes in the NDOT public right-of-way.

Assessment data is provided to NDOT using both the NDOT ArcGIS Field Maps App and PROWAP geodatabase files for efficient documentation and analysis by NDOT.

On 26 June 2025, Beneficial Designs delivered to NDOT a total of 110 miles of processed line data, collected from July of 2023 through December of 2024. Compliance formulas were added to the data layers to automatically evaluate and highlight compliant and non-compliant grade, cross slope, and tread width values according to PROWAG requirements. The distance of line data collected roughly represents the equivalent of approximately 1448 blocks, corner to corner, based on an average city block length of about 400 feet. This line data provides a clear and visual inventory of NDOT pedestrian access routes along sidewalks, driveway crossings, curb ramps, medians, and crosswalks. This new data layer can be analyzed with the existing feature layer, which now contains over 34,000 features across Nevada, including

curb ramps, driveway crossings, pedestrian pushbuttons, narrow access points, missing features, and discontinuities (changes in level, openings, excessive cross slopes, excessive grades, drop-offs, protruding objects, and multiple-feature issues).

While government changes have delayed additional project funding at the state level, Beneficial Designs staff is eagerly waiting to continue the inventory and assessment of NDOT sidewalks in Nevada.

ADA Assessment of Nevada DOT Rest Areas

NDOT 109-22-052



In October of 2022, Beneficial Designs was awarded a contract with NDOT to conduct ADA self-evaluations for all rest area facilities across the state of Nevada. During the last three years, Beneficial Designs has made major improvements to the feature assessment process, which now automatically evaluates attribute data for compliance with applicable standards. Beneficial Designs is now in the fourth year of the project and our focus is on the reporting phase. As of November 2025, Beneficial Designs has finished field assessments at all but a few of the 32 NDOT rest area facilities. To assist NDOT in the management, prioritization, and

improvement of rest areas, and to provide access information to the public, a comprehensive facility report and geodatabase will be provided to NDOT for each rest area facility. Beneficial Designs is also annually updating the NDOT transition plan.

Surface Accessibility/Surface Testing

ASTM F1951-21 Testing

Beneficial Designs is ISO 17025 accredited by ANAB to perform ASTM F1951-21 “Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment”. The standard uses the Wheelchair Work Method to compare the work required to propel and turn on any type of surfacing versus the work required to propel and turn on a 7.1% slope ramp. If it requires less work to propel and turn on a test surface than the 7.1% slope ramp, then the test surface passes the test. BD has tested playground, sport, and trail surfaces, including engineered wood fiber, artificial turf, and all kinds of outdoor surface stabilization systems. Beneficial Designs normally performs this testing at our accredited test lab, where the ISI RP is also used to measure the surface at the same time of testing. This enables surface manufacturers to use the ISI RP to verify their surface installations in the field and over time.

For more test information and to view BD’s accredited scope of services please visit

www.beneficialdesigns.com or contact mail@beneficialdesigns.com

Surface Accessibility/Rotational Penetrometer

NIH/NICHD SBIR Phase II Grant #2 R44 HD30979-02



The series 100 Rotational Penetrometer (RP) is an instrumented surface indenter (ISI) designed to measure the firmness and stability of all types of surfaces. The Series 100 RP model uses a calibrated spring and indenter to measure with a resolution of 0.0005 inches. BD is now ISO 17025 accredited as a certified calibration laboratory by ANAB to calibrate the BD RP ISI. Parks, municipalities and school systems use this technology to ensure that the surfaces on their trails, access routes and playgrounds are kept in firm and stable condition. When the DOJ published the 2010 ADA Standards for Accessible Design (15 Sept. 2010), the standards were expanded to include requirements for playgrounds. The

requirements state that playground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F1951. The RP ISI results correlate with ASTM F1951 test results

as shown in the peer-reviewed article "[Use of Two Test Methods to Ensure Accurate Surface Firmness and Stability Measurements for Accessibility](#)." We have a limited number of free copies of this peer-reviewed article available.

A settlement agreement was reached in May of 2020 between the US government and the Iowa City Community School District under the ADA. The BD RP ISI was used to objectively assess the lack of firmness and stability on playgrounds and is being used to monitor ongoing conditions. If you would like to obtain a copy of the report, check [this DOJ link](#).

Beneficial Designs regularly performs laboratory and field testing of surfaces using the RP ISI and ASTM F1951. For ordering or testing information, please visit our [website](#) or contact us at surfaces@beneficialdesigns.com.

SmartTool™ with Smart Feet



The SmartTool™ offers objective and detailed slope measurements in degrees, percent slope, and pitch to 0.1 degrees of resolution and 0.2 degrees of accuracy.

The SmartFeet are precision-machined feet added to both ends of the 24-inch (60-cm) SmartTool™ level to prevent teetering on uneven surfaces. Teetering can cause significant measurement errors and is common on all types of surfaces. The position of the feet can be adjusted to measure a grade or cross slope over a distance of up to 24 inches, representing the stance of a typical person rolling or walking across a path of travel. One of the two feet is wider, creating three points of

contact. A strap is also included, enabling easy measurement without the need to bend over. Contact us for more information at trails@beneficialdesigns.com.

Universal Trail Assessment Process & High-Efficiency Trail Assessment Process (UTAP & HETAP) Workshops, Equipment, and Services

NIH/NICHD SBIR Phase II Grant #2 R44 HD29992-02

NIH/NICHD SBIR Phase II Grant #2 R44 HD36538-02

USDA SBIR Phase II Grant #2005-03226



The years 2024 and 2025 were yet more successful years for our HETAP program, with twelve new trainings and three assessments. The trainings were done at Zion National Park in Utah; the Professional Trail Builders Association (PTBA) International Trails Summit held in Madison, WI; the 40th California Trails and Greenways Conference in Pomona, CA; the Little Red Schoolhouse Nature Center in Willow Springs, IL; the Move United conference with the National Ability Center in Park City, UT; the Gallatin Valley Land Trust in Bozeman, MT; in Grand Forks, MN; the Washington State Park in Spokane, WA; the Kurt Gowdy State Park in

Cheyenne, WY; for the Bureau of Land Management in Moab, UT; as well as two virtual trainings for the Appalachian Mountain Club in Russel, MA and Guelph City in Ontario, Canada. We have a separate UTAP / HETAP newsletter that is available. If you would like to see that you can access it on our website.

The assessments were completed in Mt. Rainier National Park and King County (both in Washington); Old Mill State Park in Minnesota; and Grand Canyon National Park with support from Move United.

Currently, over 1900 trail enthusiasts have been trained to lead assessments using the Universal Trail Assessment Process (UTAP) and/or the High-Efficiency Trail Assessment Process (HETAP). Trainings are typically held twice a year at conferences, but private trainings can also be scheduled. Beneficial Designs

provides UTAP/HETAP training materials and tools through PaxPress, while American Trails coordinates training courses. The HETAP 3.5 software and TrailWare 2.0 can be used to generate Trail Access Information, signage, and trail management reports.

The Lakeshore Foundation, which provides BD's HETAP equipment for rent in Alabama, put together a [short video](#) that explains the benefits of providing TAI. An [additional video](#) was produced at the same time, which highlights our HETAP and UTAP equipment, services, and training.

The Wheeled Instrumentation Sensor Package (WISP), available on HETAP equipment, collects higher accuracy, objective information about trails, including shared-use paths, backcountry trails, single-track trails, OHV routes, and cross-country ski trails. HETAP systems are available and are purchased throughout the US and Canada by private entities, state and city land managers, and the National Park Service.



BD has provided trail assessment and mapping services for local, state, and federal government entities in several states. This includes almost 500 miles of assessed trail in several Nevada State Parks, including nearly 400 TAI Sign Posts and over 100 panel maps. Trail assessments can also be paired with DORAP assessments of trailhead amenities (see below).

Our next advancement with TAI is sharing how it can and should be incorporated into trail databases. This is bringing trail accessibility to the digital world. At a minimum, TAI includes typical and maximum values of grade and cross slope, and typical and minimum values for tread width, surface type and quality, as well as obstacle information. Having TAI included online in trail databases will allow hikers to see if they would be able to negotiate a trail before they even get there.

For more trails-related information on Trail Access Information, please visit our [trail assessment web page](#), contact us at trails@beneficialdesigns.com, or visit www.americantrails.org. A TAI introduction document, introducing Trail Access Information, and a TAI fields document, explaining the TAI data fields necessary for trail databases to receive and disclose TAI, are available for download on our [website](#).

Digital Tread Squared (DT²)



With two SmartTool levels attached perpendicular to one another on an assessment wheel, BD's Digital Tread Squared (DT²) is a lightweight, upgradeable tool designed for measuring distance, grade, and cross slope on a variety of surfaces, while reducing the number of times an assessor needs to squat or kneel. Developed as a tool to use with a mobile device, the DT² is now available for purchase to use in trail, accessible route, public right-of-way, or clear space assessments—or any

time an accurate grade or cross-slope measurement is needed. With HETAP software on a tablet it is possible to conduct trail assessments with a much lower equipment investment than required for a full HETAP system. For ordering information, please visit our [Beneficial Designs Square Site](#).



Tahoe Rim Trail
to Tahoe Meadows

Length	21.8 mi (35.1 km)
Elevation Gain	2894.3 ft (882.2 m)
Elevation Loss	5528.0 ft (1684.9 m)

YOU ARE HERE

Latitude 39° 6'15.93" N
Longitude 119° 53'49.00" W

TRAIL USE

- Hikers
- Dogs on Leash
- Equestrians
- Mountain Bikes
- No Motor Vehicles

GRADE

Typical Grade	7.3%
23% of trail is	9% to 14%
2.4 mi (3.9 km) is	14% to 29%
Standard Ramp Grade	8.3%

CROSS SLOPE

Typical Cross Slope	3.2%
18% of trail is	5% to 10%
2433 ft (741.6 m) is	10% to 20%

TREAD WIDTH

Typical Width	28 in (70.7 cm)
Minimum Width	18 in (45.7 cm)
1.4 mi (2.3 km) is	18 in (45.7 cm)

SURFACE

Surface Type	Soil
Typical Firmness	0.17 in (F)
1% of trail is	Moderately Firm (MF)
Typical Stability	0.51 in (MS)
1% of trail is	Moderately Stable (MS)
Minimum Firmness	0.40 in (MF)
Minimum Stability	0.73 in (MS)
25% of trail is	Moderately Stable

OBSTRUCTIONS

No Obstructions

WARNING: Trail conditions may have changed since August 2017 when this trail last was assessed. Temporary trail obstructions were not recorded. Obstructions less than 2 in (5.1 cm) or outside of the tread area (36 in (91.4 cm) wide by 170 in (404.8 cm) high) were not reported. LT-41-2020-08-17

Signage created by Beneficial Designs Inc. using Trail Access Information data collected by a certified trail assessment coordinator. Funded by the Nevada Recreational Trails Program and the Nevada Department of Conservation & Natural Resources.

TAHOE RIM TRAIL

Universal Design Guidelines for Fitness Equipment (UDFE)

NIH/NICHD SBIR Phase I Grant #1 R43 HD049236-01

RERC NIDRR Grant #H133E070029 & H133E120005

RERC NIDILRR Grants # 90RE5009-01, 90REGE0002-01-00 & 90REGE0019



We are working with the University of Alabama at Birmingham on a Rehabilitation Engineering Research grant to complete a harmonized set of International ASTM Standards on universal design specifications for mainstream accessible fitness equipment and RESNA American National Standards on Inclusive Fitness Environments. ASTM general (F3021/F3022), strength equipment (F2276/F2277), elliptical (F2810/F2811), treadmill (F2115/F2106), and cycle (F1250/F3023) standards for UDFE specifications and test methods are now published and available through www.astm.org. New test methods for adjustable dumbbells are

being drafted.

In 2020, the RESNA Standards Committee on Inclusive Fitness (IF) re-published the ANSI/RESNA Standard for Inclusive Fitness—Volume 1: Inclusive Fitness Environments, which contains Section 1: Providing and Marketing Inclusive Fitness Environments, Section 2: Disclosure of Published Methods and Requirements for Creating Inclusive Fitness Environments and Implementing Inclusive Fitness Practices, and Section 3: Specifications, Test Methods, and Best Practices for Facility Accessibility. As chair of the RESNA IF committee, Stephanie is working with experts on three additional sections regarding policies, information disclosure, and training and certification for fitness center staff as well as best practices regarding what needs to be taught in college curriculums for inclusive fitness. The section on training and certification will be going out for ballot and public comment soon. The committee is actively recruiting experts in these areas. For more information, visit the [RESNA IF](http://RESNA IF website) website.

Development of Uniform Standards for Cognitive Accessibility

RERC NIDRR Grant #H133E090003 & H133E140054

The Coleman Institute for Cognitive Disabilities

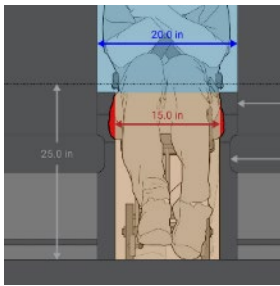
RERC NIDILRR Grant #90RE5019-01-00

We have completed two five-year RERCs for Advancing Cognitive Technologies (RERC-ACT) projects through the University of Colorado. This project launched the RESNA Standards Committee on Cognitive Accessibility (CA), whose goal is to develop universal design standards to provide information to the consumer about the usability of consumer products. The RESNA CA committee is currently drafting a section about labeling consumer products with objective information indicating the product's cognitive accessibility.

As chair of RESNA CA, Stephanie played an active role in collaborating on international standards with ISO/TC 173/WG 10 Assistive products for cognitive disabilities. Portions of RESNA CA-1:2018 Universal Criteria for Reporting the Cognitive Accessibility of Products and Technologies were incorporated into ISO 21801-2:2021 Cognitive accessibility—Part 2: Reporting. RESNA CA meetings are open to all, and the committee is actively recruiting members. For additional information, visit www.facebook.com/CognitiveAccessibility.

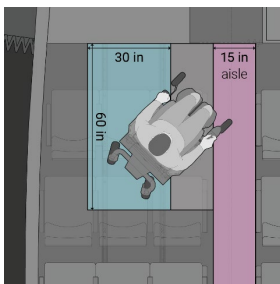
Air Travel Standards

RESNA & Beneficial Designs



The Paralyzed Veterans of America Research Foundation supported a project to study Airline Travel: Technologies for Non-Ambulatory Passengers (PVA Grant #3028). As a result of this research, Peter and Heather Ansley presented at the PVA Summit in August of 2022 and August of 2024 on solutions to address air travel for non-ambulatory wheelchair users. Peter also led the development of the RESNA Standards Committee for Assistive Technology for Air Travel (ATAT). This committee is made up of airline carriers, disability groups, and wheelchair manufacturers to draft standards related to air travel for non-ambulatory passengers. The guideline creates standards for mobility device features that will reduce the likelihood of wheelchairs being damaged, standardize the handling procedures for stowage of assistive technology on aircraft, and streamline the information-gathering process for passengers who use mobility devices. Section 4 of the standard contains design standards for wheelchairs that are less likely to be damaged during air travel and was published in September of 2021. Section 3 covers procedures for handling mobility devices was published in 2024. For more information visit the [RESNA ATAT](#) website.

Peter participated as a member of the IATA Mobility Aids Action Group (MAAG) that published the [IATA Guidance on the Transport of Mobility Aids in February of 2023](#). Peter presented at the International Air Transport Association IATA World Passenger Symposium in November of 2022 on “What you need to know and do to prevent damage to mobility aids.”



Peter participated on a committee for a Study on the Feasibility of Wheelchair Restraint Systems in Passenger Aircraft that published a preliminary assessment on the [Technical Feasibility of a Wheelchair Securement Concept for Airline Travel](#), a consensus report of the National Academies of Sciences, Engineering and Medicine that was published and presented to congress in 2021. Crash testing of powered wheelchairs is currently underway related to this work.

BD created a graphics template to enable wheelchair manufacturers to create [air travel configuration cards](#) that will assist air carriers to prepare mobility devices for air travel. The RESNA Wheelchair Standards Committee has balloted and approved the requirement for all new wheelchairs to be provided with air travel configuration cards. This ballot is going through a final revision process. Beneficial Designs has also been working to develop a process by which air travel configuration cards can be created for existing wheelchair users. An online template is now available on the [BD website](#) to allow wheelchair users to create their own Air Travel Configuration Card.

Loading with a mechanical lift or trolley

Pull grab bar at the top of the Padded Tipping Plate™
Push wheelchair base

Move
tipped package
forward onto
belt loader

Padded Tipping Plate™ remains attached to wheelchair at all times during the air travel process

Beneficial Designs has been working with PVA to help improve air travel for passengers using powered mobility devices. Due to short cargo hold doors on 737s and other regional aircraft, powered mobility devices that do not sufficiently reduce in height must be tipped on their side to fit into the cargo hold. This

practice has damaged many powered mobility devices. In order to reduce the likelihood of damage to wheelchairs when tipped on their side, BD developed the [Padded Tipping Plate™](#) that straps to the side of a powered wheelchair. The package can then be tipped to ride up the belt loader and into the aircraft. This patent-pending device has undergone RESNA drop testing and has been demonstrated to the RESNA Air Travel Standards Committee.

Wheelchair Standards

PVA & Beneficial Designs



As secretary of the RESNA Standards Committee on Wheelchairs (WCS), Peter is a US delegate to the ISO wheelchair standards work. Beneficial Designs conducts experimental testing to develop new test procedures to keep up with the development of new technologies. Peter is typically the only wheelchair user representing the voice of veterans and other wheelchair users at ISO international meetings. This is important since the RESNA national standards committee typically adopts the ISO standards in some form. The RESNA national standards were approved for republication in 2019, and new clauses included in them are being included in the ISO wheelchair standards.

Adaptive Ski Equipment Standards

RESNA & Beneficial Designs



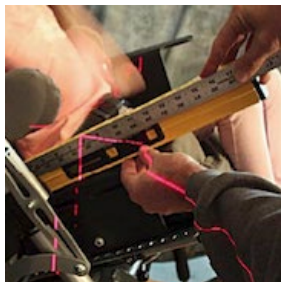
Peter is the secretary of the RESNA Standards Committee on Adaptive Sports Equipment (ASE), developing specifications and test methods for adaptive ski equipment. A revision of the American National Standard, RESNA ASE-1, was published in 2019 that includes a new test procedure for restraint harnesses for skiers who are prone to seizures. The committee is looking at restraints for sit-skis that are adjustable that can be used by instructors to prevent a sit-skier from sliding forward off of a chairlift. The committee meets each year in December, in conjunction with the Ski Spectacular event in Breckenridge, Colorado. For more information, please visit the [RESNA ASE](#) website. Members of the committee are collaborating with the ANSI B77 Aerial Tramway Standards committee to develop specifications for a Universal Access Chairlift to use with newer chairlifts that have access issues. Peter is also a member of the ANSI B77 where he is cochair of the ADA Ad-Hoc Committee advocating for accessibility of ski lifts.

Wheelchair Training Guides

PVA Research and Education Foundation

The 2nd edition of *The Manual Wheelchair Training Guide*, *The Powered Wheelchair Training Guide*, and *A Guide to Wheelchair Selection* provides wheelchair users and therapists with step-by-step instructions for selecting wheelchairs and for training manual and powered wheelchair users on how to safely negotiate various environments. These books are used as textbooks by professors teaching courses for future occupational and physical therapists. Paperback and electronic editions are available directly through PaxPress, a division of Beneficial Designs. PaxPress is also distributing the books electronically through Amazon and Nook. Contact paxpress@beneficialdesigns.com for more information or see our [Beneficial Designs website](#).

Expert Witness Services and Forensic Testing of Mobility Devices



As an expert on mobility devices, Peter Axelson has been able to help represent claims based on evidence found in testing. Peter has been an expert witness to support and represent both plaintiffs and defendants. To discuss a specific case or to learn more about expert witness services, please contact peter@beneficialdesigns.com.

Commercially Available Assistive Technology



Canoe Seating System

NIH/NICHHD SBIR Phase II Grant #2 R44 HD36944-02A1

The Universal Design Canoe Seat—now sold as a Universal Paddling Seat/Basic Seat—replaces or attaches to the existing bench seat in a canoe or kayak. It provides adjustable pelvic, back, and lateral supports to improve balance and comfort. For more information, visit [Creating Ability](#).



HipGrip

NIH/NICHHD SBIR Phase II Grant #2R44 HD36156-02A2

The HipGrip is a dynamic, spring-loaded pelvic support device for people who have difficulty maintaining pelvic positioning in their wheelchair. The HipGrip allows the user to lean forward and provides variable resistance to assist the user back into an upright position. The HipGrip was manufactured and distributed worldwide by Bodypoint and is unfortunately no longer available.

For more information, Google “HipGrip pelvic stabilization device.”



FlexRim®

NIH/NICHHD SBIR Phase II Grant #2 R44 HD36533-02A2

The FlexRim® is a compliant handrim that replaces the rigid interface between the wheelchair wheel and the handrim, reducing the gripping force and the impact forces. For more product information, visit [Spinergy](#).



PaxBac

NIH/NICHHD SBIR Phase II Grant #2 R44 HD29983-02

The PaxBac is a lightweight back support that provides lumbar/sacral back support on wheelchairs with sling upholstery. We hope to get this back support into production once again.

Special Thanks & Acknowledgments

Funding Agencies and Other Acronyms

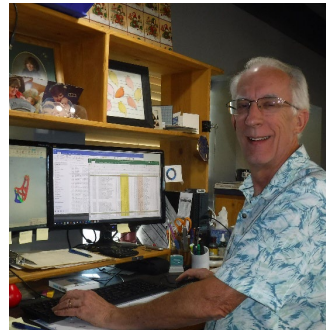
ANAB	ANSI National Accreditation Board
DOT	Department of Transportation
HETAP	High Efficiency Trail Assessment Process
ISO	International Organization for Standardization
METAP	Manually Efficient Trail Assessment Process
NAS	National Academy of Science
NDOT	Nevada Department of Transportation
NICHHD	National Institute of Child Health and Human Development
NIDILRR	National Institute on Disability, Independent Living, and Rehabilitation Research
NIDRR	National Institute on Disability and Rehabilitation Research, now NIDILRR
NIH	National Institutes of Health
PVA	Paralyzed Veterans of America Research and Education Program
RERC	Rehabilitation Engineering Research Centers
RESNA	Rehabilitation Engineering and Assistive Technology Society of North America
SBIR	Small Business Innovation Research
USDA	United States Department of Agriculture



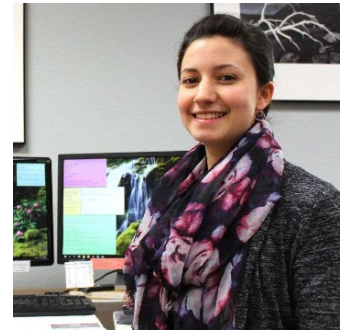
Peter Axelson



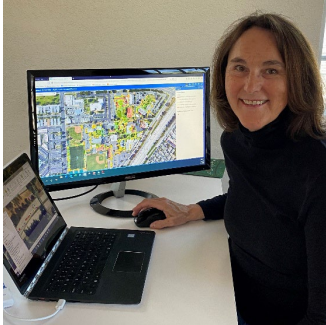
Ria Axelson



Bill Blythe



Maegan Elkaraki



Debbie Hester



Ben Hubbard



Travis McDonald



Stephanie Stephens



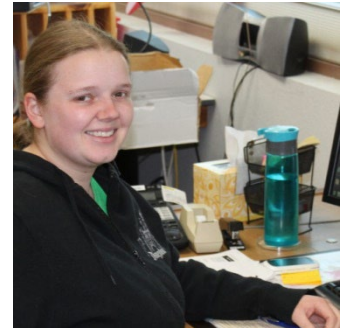
Paul Schnorbus



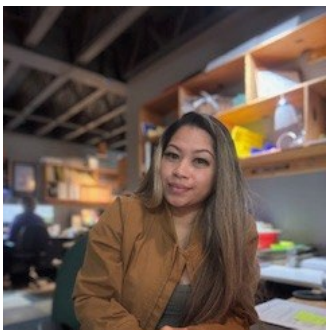
Wynter Sturtevant



Paola Vazquez



Sharon Vazquez



Susan Kha



Abraham Lesiuk



Todd Ackerman



Annabeth Johnson



Samuel Johnson



Thomas Lee



Jeremy Kennemur



Lindsay Schinzing

Staff

Peter Axelson	Founder and Director of R&D, presents our work worldwide. He loves spending time with his daughter Ria, skiing and flying light aircraft.
Ria Axelson	Office Manager and Bookkeeping Assistant, attends the University of Nevada, Reno, is a full-time nursing student, and enjoys spending time with her friends and family and studying.
Maegan Elkaraki	Project Assistant, enjoys spending time with her husband and children, and enjoys baking and a good book.
Debbie Hester	GIS Coordinator, provides GIS expertise to our trail and sidewalk assessment projects, and enjoys traveling with her husband and son.
Ben Hubbard	Graphic Designer and Project Manager, enjoys time with his wife and children, painting, reading, learning, and hiking.
Annabeth Johnson	Office Assistant, enjoys spending time with her husband and children, reading, and road trips with her family.
Samuel Johnson	Facility Assistant, when not busy with work or schoolwork, likes to take dance classes, perform in theater productions, and play Minecraft.
Jeremy Kennemur	Assessment Technician, husband and father of three boys, loves writing and recording music, playing guitar, bass, and drums.
Susan Kha	Office Assistant, loves making new memories with her little minis, autumn leaves are beautiful, but she wishes Christmas was also all year round!
Abraham Lesiuk	Sidewalk Assessment Technician, loves spending time with his boys, DIY projects, camping, hiking, kayaking, and playing guitar.
Travis McDonald	Assessment Technician & GIS Assistant, provides assistance in review, guidance, & data edits via GIS system. Enjoys backpacking, reading, running, music & exploring OHV trails.
Linsday Schinzing	Technical Assistant, enjoys spending time with her husband, two children, and their standard poodle, and reading and baking.
Paul Schnorbus	Machinist, likes Legos, machining, target shooting, camping, and a well-told story.
Stephanie Stephens	Quality Manager, lives in India with her husband, where she continues to work for Beneficial Designs, is learning to cook amazing food, and is attempting to drive in a city that is consistently in the top 10 for worst traffic in the world .

Wynter Sturtevant III	Research Assistant, also preaches in the Central Valley of California and loves spending time with his family.
Paola Vazquez	Office Assistant, attends WNC and enjoys being with family, jogging, and working with children.
Sharon Vazquez	Bookkeeper, enjoys spending time with family and friends, reading, and music.

Consultants

Todd Ackerman	Trail and Sidewalk Assessment Coordinator, leads trail and sidewalk assessments and enjoys outdoor activities, traveling and teaching the trail assessment process.
Bill Blythe	Facility Manager, enjoys spending time with his wife, cooking, and working with computers; he is also the facility and IT manager at his church.
Martin Clemons	Electrical Engineer, designed the HETAP 3 electronics and firmware and is the lead engineer to assess outdoor recreation trails.
Nathan Tolbert	Sidewalk Assessment Trainer and Project Coordinator, loves hiking, fishing, and camping with his wife and sons, and enjoys coaching a variety of sports.
Thomas Lee	IT & Management Assistant, loves working on and building ecommerce websites, is father to two boys 5 & 9, and enjoys spending time with family and watching football, basketball, and baseball.

Board Members

Chris Lynskey	Chris is experienced in the sidewalk assessment process and has a vast range of financial and management experiences. He loves golf and skiing and gets exercise when he and his wife are walked by Micah, their golden retriever.
Kent Nelson	Kent is a UTAP trainer who also assists with designing amusement park ride recommendations. For BD as a whole, he offers valuable advice based on common sense and an ability to see to the heart of issues.