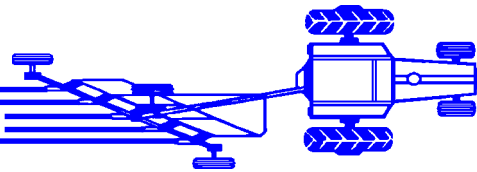


Breaking New Ground

Cultivating independence for farmers and ranchers with disabilities



A publication of the Breaking New Ground Resource Center, Purdue University and the USDA AgrAbility Program

SUMMER 1999—Volume 17, Number 2

“If anyone wants to be first, he must be the very last, and the servant of all.”
Jesus

Recently, I was invited to attend the 37th Annual Handicapped Gathering of Amish families held in Sullivan, Illinois. Several hundred Amish family members, representing communities from all over the U.S., came together for a weekend of encouragement and sharing. The heat and humidity that were helping make the corn grow in the fields surrounding the community building were oppressive, but no one complained. No pagers went off, no one was put on hold or pulled out a cellular phone to be somewhere they weren't. No one was in a hurry, and there was time to listen and focus your attention on the person in front of you.

At each meal, something very upside down, by the standards of the outside world, my world, happened that caused me to stop almost bewildered. Something was not “right”. The blind and lame, slow in thought, those in wheelchairs, on crutches, and using walkers, and the eldest were warmly invited to be seated first, in the center of the room, in the place of honor. Each was served and their needs met before the others were invited to sit and eat. There was no rush for the food, and even the children instinctively knew that their turn would come after the “least” of them became first and the “first” completed their work as servants.

Can you imagine if more schools, churches, politicians, governmental agencies, businesses, and even disability organizations took seriously their role as servants rather than trying so hard to be first or greatest? The next time you are served at a fast-food restaurant, doctor's office, license branch, independent living center, or by a local disability organization, ask yourself: Are we losing the art of service, the capacity to put the other person first? Has our desire to be first hindered our ability to serve? Is there something I can do to ensure that the virtue of service continues to be normal behavior rather than a peculiarity practiced only by the Plain People?

BNG is in the process of establishing a permanent endowment at Purdue to provide scholarships for students with disabilities pursuing careers in agriculture. We have received a \$6,000 gift that we have promised to match. If you would like to become part of this effort, additional information is found elsewhere in the newsletter. Our goal is \$20,000 by the end of 1999 which will allow us to give the first scholarship in the Spring of 2000.

Thank-you!

Bill Field
Co-Editor

Barry Delks
Co-Editor

Ed Kirkpatrick
Co-Editor

Preparation and publication of this newsletter was made possible by: CSREES USDA Project #96-EDFA-1-0033 and the generous gifts from our readers.

SPECIAL EVENTS

The Sixth Annual Assistive Technology Conference

Date: September 20-22, 1999

Location: Topeka, Kansas

The Sixth Annual Assistive Technology Conference: From Awareness to Access has teamed up with The Heartland Seating and Mobility Conference to offer an opportunity for information and skills training in the areas of assistive technology. Sessions include: Aging, Assistive Technology, Computer Access, Education, Employment, Funding, Positioning, Recreation, Rural Issues, and Sensory Adaptations. It will be held at the Capitol Plaza Hotel and Maner Conference Center. For more information, please call 785-272-4060.

Farm Progress Show

Date: September 28-30, 1999

Location: Amana, Iowa

America's premier farm show will feature an exhibit field, seed variety plots, livestock equipment and demonstrations, and field demonstrations. There will be a broad range of education booths including a “Welcoming Home” display showing attractive ways to make a no-step entrance at the AgrAbility booth in the ISU tent. Contact Mary Years at 515-294-8520 for more information.

1999 AgrAbility Training Workshop - AgrAbility Conference

Date: October 5-8, 1999

Location: Madison, Wisconsin

Topics will include concurrent technical sessions, on outdoor mobility, farming with CP, and on-farm assessments. Also included will be a theatrical performance on coping with farm stress, farm visits, and AgrAbility staff meetings. The conference will be held at the Best Western Inn Towner. Contact Carol Maus at National Easter Seals, 1-800-914-4424, for more information.

National Small Farm Conference

Date: October 12-15, 1999

Location: St. Louis, Missouri

The theme for the Second National Small Farm Conference, held at the Regal Riverfront Hotel, is “Building Partnerships” for the 21st Century.” It will provide a chance for people in the public and private sector to collaborate more effectively through open forum discussions, hands-on workshops, and participant-organized networking sessions. Look for the AgrAbility display at this conference. For more information contact Mickie Swisher at 202-401-4900 or view the conference web page at: www.luce.lincolnu.edu.nsf/.

APRIL National Conference

Date: October 23-25, 1999

Location: Cincinnati, Ohio

The Association of Programs for Rural Independent Living will hold its annual National Conference at the Regal Cincinnati Hotel. This event will include workshops on employment, core IL services, ADA and Rehab Act updates, working with underserved populations, and disability health and wellness. National AgrAbility staff will have a display at this event and Dr. Stephen Block will be conducting a full day management track. Feel free to contact Linda Gonzales at LGonz21800@aol.com for more information.

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AgrAbility Helps Farmer Overcome Disability

Amy Jo Bazile
Wisconsin AgrAbility

The day before deer hunting season in the fall of 1981, Ron Brown, a dairy farmer from Edgar, WI, reached in to unplug a running combine.

“I argued with the combine and lost,” quipped Brown. His injury was one of more than 4,000 injuries that occur on Wisconsin farms every year.

The combine had mangled the flesh on his arm, but thinking he only needed a few stitches, he drove back to the farm. His son, Doug, drove him to the hospital where they discovered the injury was much worse. Brown was taken to surgery, and Doug was asked to sign papers giving the doctors permission to amputate the arm if necessary. The doctors were able to save the arm by implanting a muscle from Brown’s leg. After a long stay in the hospital, Brown was able to come home for Christmas, but it was only the beginning of a long rehabilitation.

“The hardest part about coming home,” said Brown, “was facing the family after I had always told them to shut equipment off to work on it.”

For several months, he could not go into the barn or do other farm work because of the risk of infection. Brown says he did “what he could when he could,” and he is thankful for the help of his kids and his wife, Janice.

“We all just had to pitch in a little more,” said Janice.

Brown slowly returned to working full-time in the farming operation, even with limited use of his arm. Over the past 15 years, however, Brown has also developed arthritis in his joints, especially his knees. The arthritis, coupled with the limitations of his arm, made many farm chores difficult and painful for Brown to do.

Early in 1997 Brown read about AgrAbility of Wisconsin in a statewide agricultural newspaper. AgrAbility of Wisconsin provides direct vocational rehabilitation services and outreach education to farmers and their families dealing with chronic health conditions and physical disabilities. Brown contacted AgrAbility hoping they could help him continue to farm despite his injuries and effects of arthritis.

Brown began to work with Paul Leverenz, Director of Easter Seals Resource Center for Farmers with Disabilities (Extension’s partner in AgrAbility), and T. Ellenbecker, a vocational rehabilitation counselor with the Division of Vocational Rehabilitation in Wausau.

“Between his (Paul’s) ideas and mine, and Ellenbecker’s help, we made farming a little better and easier to do,” said Brown.

Leverenz made recommendations to Brown on the type of equipment that would help him continue to farm, while reducing the stress on his knees and arms. Ellenbecker developed a plan with Brown outlining the steps it would take him to reach his goal to continue farming.

“AgrAbility’s farm assessment served as an important part in developing Ron’s plan,” said Ellenbecker.

Some of the equipment Brown introduced to make farming a little easier included a John Deere Gator. The Gator allows Brown to herd cows into the barn, fix fences, and do many other activities around the farm.

Ron Brown says, “Farming is what I was meant to do...”

“I even used the Gator to haul maple sap out of the woods this spring,” said Brown, a year after he contacted AgrAbility. “It has been a long time since I was able to do that!”

According to Brown, drive-through gates are also a great help. He no longer has to get off the tractor to open and shut gates around the farm. An electric silage cart and an automatic feeder for the calves make feeding the livestock a much less straining task.

Brown also had a hand in enhancing the accessibility of his farm. He purchased a skid steer loader to eliminate the need to clean the barn by hand. He made some of the modifications on the farm himself by adding extra steps and handrails to his tractors. The steps and handrails have reduced the strain on Brown’s knees and arm while getting on and off the tractor.

Because of the new equipment and modifications, Brown is able to continue milking 40 to 50 cows and participate in field work with his family. However, this is not the end of Brown’s story.

Brown serves on the Board of Directors of Family Dairies USA and has shared his story with many farmers throughout Wisconsin. Brown believes there are many farmers around the state who could benefit from AgrAbility of Wisconsin. He talks to them about the services that are available, his personal experiences, and how to contact AgrAbility.

AgrAbility of Wisconsin is able to provide services to farmers or farm family members throughout the state dealing with the effects of chronic health conditions, such as arthritis or asthma, and physical disabilities, such as paralysis, amputations, or back injury. AgrAbility services are provided on the farm and are confidential. These services include: equipment and worksite modification recommendations, community and health care coordination, farm job restructuring, stress management, farm safety, and identification of funding sources.

For more information about AgrAbility of Wisconsin and its services, please contact Amy Jo Bazile, AgrAbility of Wisconsin, 460 Henry Mall, Madison, WI 53606. Phone (608) 262-9336.

Texas AgrAbility

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Agriculture is one of the most dangerous occupations in the nation. The risks associated with agricultural work are tremendous considering the variety of hazards that farmers and ranchers are exposed to on a daily basis.

Each year, a disabling injury related to work in agriculture occurs on one in every 117 Texas farms. If disabling injuries not related to farm work are included, the rate jumps to one disabling injury for every 24 Texas farms. Texas farmers and ranchers with disabilities are dually challenged by their impairments and the fact that they live in a large state with scattered resources. The Texas AgrAbility Project addresses those challenges by helping determined individuals overcome barriers to continue their chosen professions in agriculture.

Beginning April 1998, the Texas Agricultural Extension Service and the Resource Center for People with Disabilities, affiliate of Warm Springs Rehabilitation Hospital, combined to create the Texas affiliate of the National AgrAbility Program.

The Texas AgrAbility staff work with farmers, ranchers, primary caregivers, and health-related professionals in identifying problems and solutions. Staff may provide technical assistance, make referrals, or arrange for on-site visits. The goal is to enable disabled farmers and ranchers to continue to be productive in their agricultural operations. Texas AgrAbility also works with the Texas Rehabilitation Commission to find financial resources for the client's special technology needs.



Willie Esse, Jr. is a farmer in Atascosa County, South Texas. Paralyzed from the waist down from polio, he designed a deer blind that can be accessed by a person in a wheelchair.

National AgrAbility Project Training Workshop

October 5-8, 1999

Madison, Wisconsin-Best Western Inn Towner

The tentative schedule is as follows:

Tuesday, October 5 - Registration, New Staff Orientation, and Reception

Wednesday, October 6 - All-day Staff Meeting and Farm Alarm: Theatrical-based education to promote stress management and farm safety

Thursday, October 7 - Morning: Onsite Farm Assessment; Outdoor Mobility Aids; and Making Modifications

Afternoon: Women in Ag; Missouri Arthritis Project; Minimizing Risk; and Farming with CP

Friday, October 8 - Dairy Farm Visit; Ad hoc planning committee meeting; other working group meetings

The registration fees will be \$100.00 for farmers, ranchers, and farmworkers with disabilities and their family members, \$140.00 for USDA AgrAbility staff, and \$175.00 for all other participants.

The room rates will be \$79.00 + tax (\$89.67) for single and \$89.00 + tax (\$101.02) for double occupancy. The Inn Towner has 17 accessible rooms - 13 in the regular section and 4 in the Highland Club. To get these rates and assure you get an accessible room if you need it, make your reservation directly with the hotel by September 5. Call (608) 233-8778 and tell them you are part of the AgrAbility National Workshop.

News Impacting Farmers with Disabilities

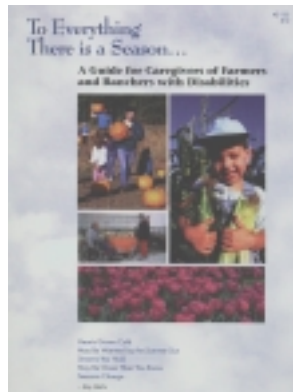
Harvest Partners® Program

The National AgrAbility Project has been selected as one of the not-for-profit organizations to receive points donated by the 1999 Harvest Partners Program.

American Cynamid coordinates the Harvest Partners program. When farmers purchase products such as Pursuit®, Scepter®, Squadron®, Prowl®, Counter® and other American Cynamid products, they now have the opportunity to donate to several charities. The AgrAbility Project is one of the programs farmers can donate their HARVEST POINTS to in 1999. For more information on how to donate, call the HARVEST PARTNERS® program at 1-800-258-2345. Thank you in advance for your points.

BNG Receives Two National Awards

The BNG resources “To Everything There is a Season - A Guide for Caregivers” and the BNG newsletter each received a Blue Ribbon from the American Society of Agricultural Engineers. These awards recognize Extension education materials as being the best in the nation and are hard to come by. The entire BNG Staff is pleased that our efforts to serve farm and ranch families with disabilities has generated resources that are considered of the highest quality. We will strive to continue our commitment to service and doing our best.



Farmers with Arthritis Project

Arthritis and related musculoskeletal conditions are the leading cause of disability in the United States today. In fact, arthritis is the most common reason given by adults between the ages of 40 and 75 for limitations in their activities and restrictions in their daily life. Rural, agricultural environments presents major physical challenges for persons with arthritis, both at home and on the job. With a Department of Education - NIDRR grant, the Missouri AgrAbility Project (MAP) has teamed up with the Missouri Arthritis Rehabilitation Research and Training Center (MARRTC), to help farmers with arthritis by developing arthritis-related resource materials and to facilitate technology provision to rural communities. To learn more about the MARRTC-funded "Farmers with Arthritis Project," call Karen Funkenbusch, Coordinator, University of Missouri-Columbia, at 1-800-995-8503.

Language - A Powerful Tool*

“Handicapped man confined to wheelchair...” “Girl stricken with cerebral palsy...” Words and phrases such as these help to shape incorrect perceptions of people with disabilities. By working together to create positive attitudes toward people with disabilities, we can create a better society - and that is a positive step for everyone. Negative attitudes are often the greatest barrier for people with disabilities to overcome. Even the word “handicap” itself is considered insulting by some - and should be avoided. “Handicap” is derived from “cap in hand,” a phrase associated with beggars.

When speaking or writing, always refer to the person first and not his or her disability. Do not say “a blind person” or “afflicted with blindness.” Instead, refer to “a person with blindness.” Be sensitive when choosing words. Grouping individuals together as “the mentally retarded” or “the handicapped” puts the focus on the disability, not on the individual. “People with disabilities” or “individuals who use wheelchairs” places people first.

The following are some more respectful and descriptive words. A person with/ with a/who has:

- ◆ blindness
- ◆ cerebral palsy
- ◆ communication disorder
- ◆ deaf
- ◆ developmental disability
- ◆ disability
- ◆ epilepsy
- ◆ wheelchair-user
- ◆ visual impairment
- ◆ unable to speak
- ◆ seizure disorder
- ◆ psychiatric disability
- ◆ paraplegia
- ◆ hearing impairment

**Used with permission from the Indiana Governor's Planning Council for People with Disabilities.*

Special *Breaking New Ground* Technical Report
Rural Church Accessibility*

Ned Stoller William E. Field Barry Delks
Rural Rehabilitation Specialist Professor Director

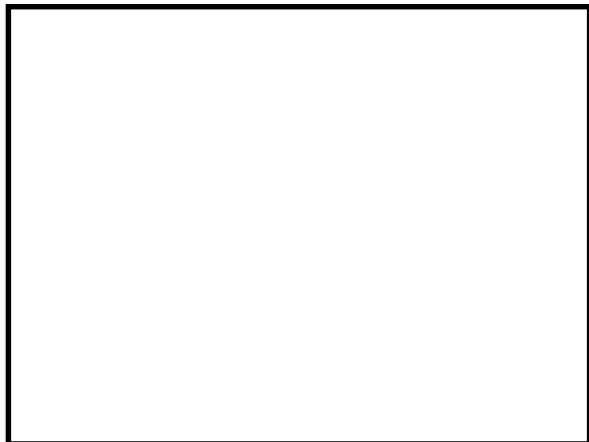
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INTRODUCTION

“Nobody with a disability comes to our church.”
“We can’t afford all those modifications.” “Do
people with disabilities even live in our
community? I never see them.” “The law will
force us to spend more on remodeling than we can
afford, so we’re not even going to start.” “The
ADA doesn’t say we have to comply anyway.”
“We’re already serving shut-ins.”



Churches serve as a meeting place in many rural communities.

Are these valid excuses for not making a church accessible to all people?

Local churches have been and continue to be one of the most significant influences in rural America. People gather at rural churches to worship, fellowship, participate in community activities, and vote. Other functions may include day care centers, preschools, senior centers, civic groups, and Cooperative Extension meetings. Participating in a local church offers the

*This work was sponsored in part by the United States Department of Agriculture, CSREES USDA Project #96-EDFA-1-0033.

¹Superscript numbers refer to the corresponding resource at the end of this article.

opportunity to strengthen one another and to grow, as well as to keep up with current community events, make new friends, and be an active part of the community.

Many of the meeting places for rural church services were constructed decades ago, often with volunteer help from members of the congregation. In the design of the simple or the ornate, little attention was given to ensuring freedom of access by those with disabilities. People in the congregation provided the needed assistance, or if the disability made access too difficult, people with disabilities joined the class known as shut-ins and were cared for by the congregation.

A survey of rural churches will typically find the entrances adorned with a large column of stairs and a heavy front door, the restrooms are small and the hallways are narrow. Consequently, these architecturally beautiful church structures, which add so much to rural America, have remained largely inaccessible to many rural residents with disabilities who would like to participate in church activities.

So is this problem really worthy of concern? Are there enough people with disabilities in a rural community to warrant the effort required to make a church accessible? The answer is a well-documented “yes”!

The importance of addressing the issue of rural church accessibility is stated in the final report of the *Assistive Technology Needs Assessment of Farmers and Ranchers with Spinal Cord Injuries* that was completed in 1994 by the Breaking New Ground (BNG) Resource Center⁽¹⁾. This survey explored the needs of farmers and ranchers with spinal cord injuries, including their participation in various community activities. The results revealed a deep need for improving church accessibility in rural communities.

Nearly 60% of the respondents reported being very active or active in their church; however, 40% rated their churches as not accessible or only partially accessible. Other assessments have

produced similar findings. As a result of these observations, the BNG Outreach Program designed and conducted a series of workshops for rural churches that would assist them in improving facility access. This Plowshare is an outgrowth of those workshops. It will consider physical and communication barriers and present solutions often found in rural churches. It will also discuss ways to encourage families of people with disabilities who are part of the church family.

STEPS TO ACCESSIBILITY

There is a logical path leading toward church accessibility. First, remember that to serve the people in the church it is imperative that their needs are known. Identify barriers that are causing difficulty to the current attendees and place them at the top of the priority list. Then evaluate the entire facility using an accessibility checklist, like the one at the back of this Plowshare, to identify all the barriers present. The next major step is to prioritize which barriers are most critically affecting people's participation in various church and church-related activities.



Assessing the physical barriers is a good place to start.

High priority areas may include entrances to the building, accessing the sanctuary or fellowship area, or using the restrooms. Each congregation must decide which areas are the most critical to church participation. Once the priority list is made, a timeline or plan should be laid out to accomplish the various levels of accommodation. If all areas are addressed at the same time, the accessibility project may appear overwhelming and expensive. However, by working on smaller segments of the project, accessibility can be attained over a period of time based on the level of resources available.

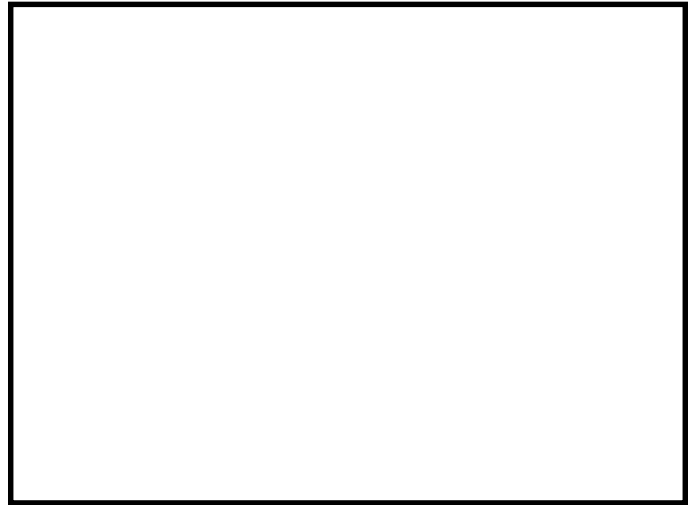
When considering extensive modifications, both short and long-term goals should be reviewed. If there is a vision to add onto the existing structure, lower cost alternatives to improve access could be considered for the short-term while working towards a carefully laid out plan of extensive modifications in the future to provide full access. In some situations, the need to improve accessibility

has been the catalyst to bring about an already needed building project.

Experience from the church accessibility workshops suggests that many of the modifications can be made at low cost and often by members of the congregation. Remember, the purpose is not to comply with laws and rules, but rather to ensure that every member is considered essential to the congregation and has the opportunity to participate fully in the functions of the church.

ARCHITECTURAL BARRIERS

The most obvious barriers to people with physical disabilities are the architectural aspects of the church, such as steps, narrow doors, and small restrooms. When someone is using a wheelchair, a four-inch step might as well be a forty-foot wall. When someone has an arm amputation or arthritis, a door with a smooth doorknob might as well be chained and locked. This section will



Steps are a major barrier in most churches.

address the common physical barriers to accessibility and provide suggestions for alleviating the problems. Beginning with the parking areas and pathways, ramps and lifts will follow; then restrooms, the sanctuary, and fellowship areas will be considered.

Parking Areas

The first challenge that might be faced in accessing a rural church is in the parking lot. Parking surfaces at a rural church can range from an asphalt lot with painted lines to a grassy yard under a shade tree or even the shoulder along a gravel road. When providing accessible parking, consider the following guidelines and tips:

- Accessible parking for those with disabilities should be located as close to the building's accessible entrance as possible.

- There should be no less than one accessible parking space for every 25 standard spaces; however, more spaces may be needed depending on the congregation's needs.

- An accessible parking space should be no less than 8' wide with a 5' access aisle. Two accessible parking spaces can share the same access aisle to save space.

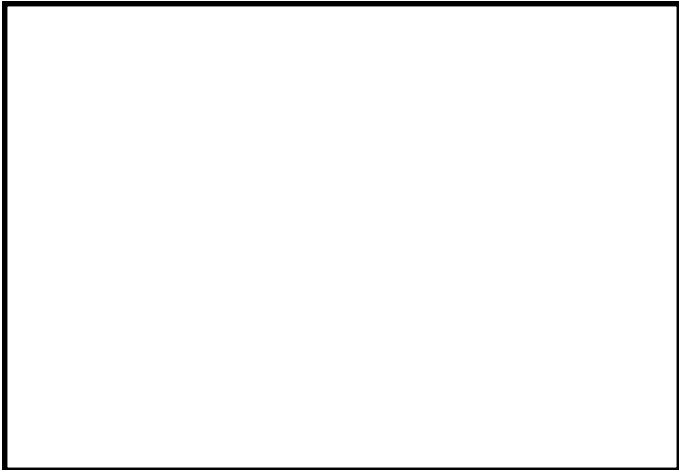


All accessible parking areas should be well marked.

■ All accessible spaces should be level and have a well-drained, smooth, hard surface. Avoid sod and loose gravel. Concrete and asphalt are good paving materials. Well packed, crushed limestone containing the fines (residue from stone crushing) also makes a solid, inexpensive surface; however, it will require more maintenance.

■ A smooth, accessible pathway should be provided from the accessible parking space to the accessible entrance. Be careful to replace all curbs and steps with curb cuts and ramps. Also avoid thresholds over 1/2".

■ Proper signage is important at all accessible parking, pathways, and accessible entrances. If the main entrance is not accessible, there should be signs to direct people toward the accessible entrance. Signage is also an important tool to inform, and demonstrates that the church openly welcomes people with disabilities and their families.



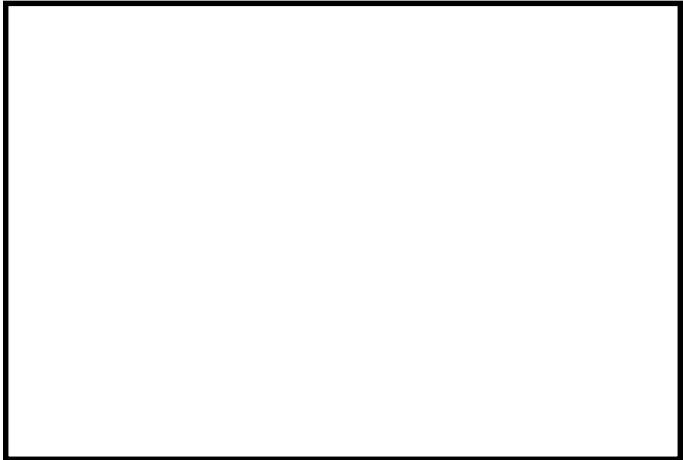
Signage can improve accessibility.

Ramps and Lifts

The challenge of ascending the flight of steps leading to the front door of many churches is daunting, to say the least, for people with lower extremity disabilities. But, before significant modifications are made to the primary entrance, the layout of the entire building should be considered. Does the church have more than one level?

Do all levels require access? Will an interior lift or ramp system be required once inside the front door? Often a series of steps leads up to the front door, and inside the building there is a second flight of stairs leading up to the sanctuary and a third flight leading down to the fellowship area and classrooms. In such a situation it may be beneficial to install a lift box that can access every level. However, if the church is all on one level, a ramp leading to the front door may suffice.

Several general guidelines apply to the construction of ramps for people using wheelchairs or having difficulty climbing steps. The following is a list of ramp specifications:



A ramp or lift can even make this church accessible.

■ The slope should not exceed a ratio of 1:12 (1" rise for every 12" run).

■ The cross slope (slope from one side of the ramp to the other) should not exceed a ratio of 1:50.

■ The ramp should be at least 36" wide.

■ For every 30' of ramp run there should be a level platform as wide as the ramp and 60" long for a resting area.

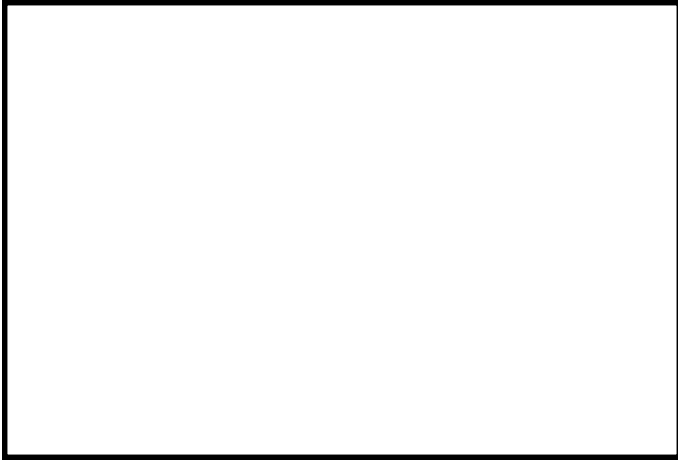
■ If a ramp changes direction, there should be a 60" x 60" level platform for turning.

■ If a ramp rises 6" or more, handrails should be provided on both sides at a height between 34" and 38".

■ A level platform at the top of the ramp should be provided for a wheelchair to rest on while accessing the door. This allows the door to be opened without sitting on the sloped ramp surface.

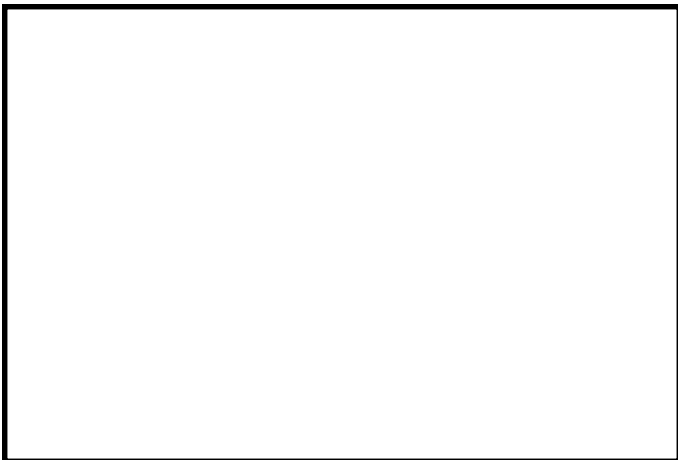
Ramps are typically the least expensive option to climbing steps, so they are used whenever possible to help hold expenses down. Ramps come in various configurations and can be made from materials such as wood, concrete, and metal. They can even be constructed by altering the landscape and pouring a sidewalk to provide a gentle slope up to the church doors. Or, if a ramp needs to go below grade or ground level, soil can be excavated to provide a slope down to a basement entryway. When building ramps, it is important to consider the surface texture since moisture, frost and ice make ramps hazardous if they are too smooth. Adding a textured surface to the concrete, or using a non-slip surface material such as

abrasive paints or rubber mats will improve traction and safety.



A well designed ramp can blend in with the beauty of the existing building.

A ramp does not work in every situation. Sometimes a lift or elevator is the best or only option. Elevators that use cables and counterweights are in many cases cost prohibitive for small congregations to construct and to maintain. Lifts are less expensive to maintain and cheaper to install, and they operate using hydraulic actuators or electrical screw jacks. Lifts can be installed to serve multi-levels with more than one door.



Covering an exterior liftbox protects it from weather.

A lift can cost as much as \$30,000 to purchase and install, so it is a large investment. Placing the lift wisely to provide access to as many levels as possible is important. Potential church expansion should also be taken into consideration when installing the lift to prevent reinstallation when providing access to new additions. Lifts can be built on the interior or exterior of the church. If built inside, the appearance of the church building is not compromised; however, space is lost. If the lift were constructed on the exterior, no space is lost inside, but the looks of the building would be altered. Choosing a location to construct the lift is a decision your church will have to make based on its priorities.

Other options exist for overcoming barriers to steps. Seat or platform stair-climbers are electrically powered devices that follow a track up or down flights of stairs. The seat or platform can fold up against the wall when not in use so the steps are not blocked for other users. When folded up, the seat is about 14" wide and the platform about 20". The seat type lift (capacity 300 pounds) bolts to the steps, while the platform lift (capacity 450 pounds) is usually wall mounted. The cost of an installed seat climber on a straight flight of eight steps would cost around \$5,000 while the platform climber would be around \$13,000. If a curve or turn is required in the climbing track, the estimated seat and platform costs would be approximately \$10,000 and \$20,000 respectively.

The seat stair-climber provides access to upper levels for people who can not climb the steps, but the wheelchair would need to be carried up the steps. The seat option also requires the user to transfer from the wheelchair to the seat and then back whenever the steps are used. For these reasons the seat device may not be a desirable long-term solution; however, the seated stair-climber costs less than half as much as the platform climber. In addition, people with mobility impairments, but not needing a wheelchair, may be more likely to use the seat-climber than the platform-climber.

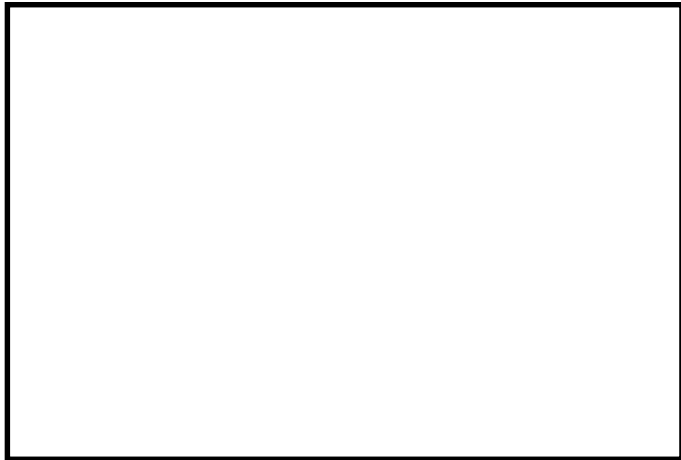


A platform stair-climber can provide access to many levels.

The benefit of the platform-type stair-climber is its capability to transport the wheelchair also. No transfers are necessary between the person's wheelchair and the platform since the platform can carry both the person and their chair. Because it will carry a chair, the platform-climber meets ADA accessibility code requirements. A powered folding option is commonly installed on the platform-climbers to fold them out of the way. It is operated by push-button controls and has safety rails to keep its users from falling during transport.

A fourth option would be to use a mobile stair-climbing device such as the Stair-Trac. This is a mobile, battery-powered device used to carry people in wheelchairs up and down steps. It moves on rubber tracks similar in concept to bulldozer tracks. A wheelchair is strapped onto the device and then driven up or down the steps. The cost of this device is approximately \$5,000, and training is required

on safe and proper use. This may be a valid, less expensive option for churches with several levels and flights of stairs. However, people using the device in wheelchairs may feel insecure on it and it lacks the independence provided by other lifting devices (it does not meet ADA code).



The Stair-Trac can be a short-term, less expensive method of accessing a church.

The type of lifting device chosen should be based on the input of the individuals in your congregation who have disabilities as well as the resources and priorities of your church. All four options provide access to different levels of church buildings, but the ultimate question to ask is “Will this adequately serve the people with disabilities in our church with the resources available?” Always remember to consult the church members with disabilities before making decisions that affect them.

Restrooms

Many small rural churches do not have accessible bathroom facilities for several reasons. Since restrooms aren’t central to the church’s purpose, they may be overlooked as an area needing to be accessed. In addition, when many rural churches were built, indoor plumbing was not an option. When indoor plumbing became a priority, churches often converted closets, coatrooms, and other small areas into restrooms.

Typically, these small restrooms are far from being accessible to someone with a mobility impairment or using a wheelchair. The restroom doors are often too narrow, the stalls too small, and there is little room to maneuver a wheelchair. In addition, churches seldom have space enough to create two accessible restrooms. An option is to create one larger, accessible unisex restroom with a lock on the door.

An accessible unisex restroom would require less space and expense than modifying two restrooms for accessibility. Some people with disabilities have an attendant help them in the restroom, and quite often it is that person’s spouse or parent. The unisex restroom allows the attendant to serve without going into the opposite gender restroom.



A high sink, lever handles and a lowered mirror help make this restroom more accessible.

An accessible restroom should include:

- At least 5’ diameter of clear floor space for turning a wheelchair.
- A toilet seat 18” high.
- Grab bars mounted beside and behind the toilet 1 1/2” from the wall and 33”-36” high.
- 32” high lavatory without a cabinet underneath and all exposed pipes padded and insulated to prevent burns or bruises.
- Lever type door and faucet handles.
- A mirror mounted no more than 40” above the ground.

If the existing restrooms in a church are large enough to rearrange or modify for accessibility, other characteristics should be considered in addition to those mentioned previously. Restrooms with stalls will need to have at least one stall that is accessible as shown in the accompanying diagram.



A standard accessible restroom stall should have these characteristics.

SANCTUARY & FELLOWSHIP AREAS

Modifying a church building should allow those with disabilities to comfortably participate. For example, having a person sit in an aisle will cause him or her to feel more uncomfortable than if sitting within the pew area.

Sanctuaries can be modified to accommodate persons using wheelchairs by shortening several pews or exchanging long pews with shorter pews and offsetting them so that a parking space, or “pew cut”, is made outside of the aisle. When pew cuts are installed, it is advised that signage be used indicating that the short pews are reserved for people with disabilities and their families. People with disabilities appreciate sitting with their families just like everyone else. It may be appropriate to have one pew removable to provide open space for several wheelchairs.

When providing general accessibility throughout the church, consider the following suggestions:

- All drinking fountains can be made accessible at low cost by attaching a drinking cup dispenser.

- Coat racks can be made accessible by hanging a bar down lower with chains so people with limited reach can use them.

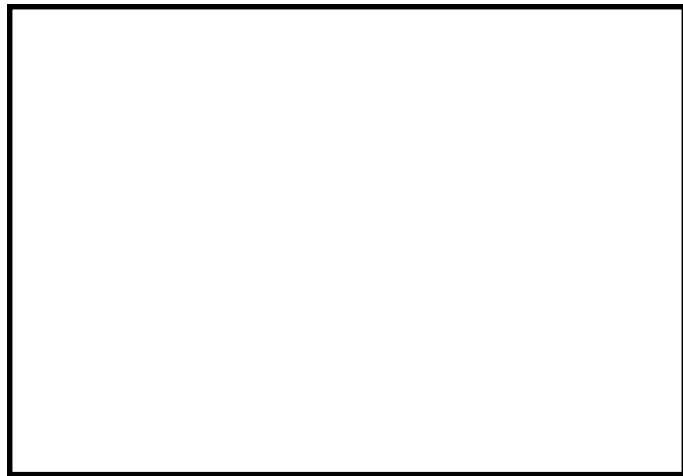
- All hallways and aisles should be free of steps, and thresholds should be no higher than 1/2” and rounded.

- Door openings should be at least 32” wide (36” is better). In some cases narrower door jams can be retrofitted with offset hinges so that the door’s thickness swings clear of the frame, providing an adequate opening with the existing doorframe.

- All high-traffic doors should have lever door handles.

- Meeting areas should be set up so that people using wheelchairs, crutches, and walkers can maneuver between tables and chairs. Keep chairs pushed under tables to provide wider aisles.

- Tables and desks can be made accessible by placing the legs on blocks and removing chairs. Most tables need to be raised 2” to allow a wheelchair to roll under them.



Coat racks can be made accessible by hanging a bar down lower or installing a lower bar.

- Post an invitation in newsletters, bulletins, directories, offices, and food service areas, that states: “If you need assistance, please ask or contact.....”.

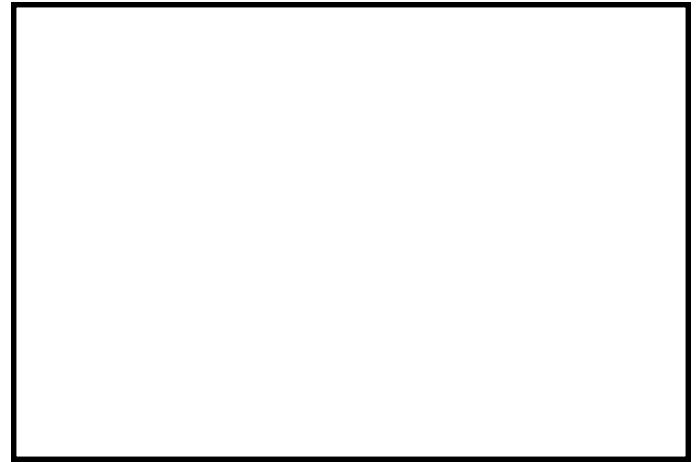
- Special services such as baptisms can be provided at alternative locations such as rehabilitation centers, hospitals, or accessible public pools.

- Changing the location of a meeting or a class is often the best way to achieve accessibility. It may be

easier to move people than to make an inaccessible room or area accessible.

COMMUNICATION BARRIERS

Communication barriers hindering people from accessing the services of a church may be more subtle than the physical barriers. Communication disabilities may not be visible or obvious to others in the congregation, so they are less likely to be addressed. However, hundreds of thousands of people in rural communities have hearing, vision, and speech impairments that may prevent them from full participation in religious events.



Large open auditoriums require proper sound systems so that everyone can hear.

The purpose of church services is to communicate meanings and ideas to the attendees. If communication barriers are unchecked, the entire purpose of the service is lost, and the person with the disability has been effectively excluded. Although a ramp helps people access the front door, it is useless if people can not communicate once inside the door.

Hearing

More than 10% (28 million people) of the American population have hearing impairments, including 50% of the farmers between the age of 45 and 54⁽²⁾. Also, three out of every eight senior citizens have hearing loss. Considering that many farmers hear poorly, addressing the issue of adequate sound systems in rural churches is important.

For personal fellowship or individual conversations, the person with a hearing impairment will probably be equipped with hearing aids or an assistive listening device (ALD). An ALD looks like a hand-held radio with a set of headphones attached. The ALD acts as a microphone, receiving sound signals and amplifying them before sending them on to the headset and the person’s ear.

A person with a hearing impairment may also read lips or communicate with sign language. In such cases, the reader needs a well-lighted room so the fingers and lips of the presenter can be easily seen. This applies specifically to the sanctuary where a lip or sign language reader may be watching. A well-trimmed moustache creates less



This diagram shows the components of an assistive listening system and their function.

interference for those reading lips. The speaker should make a conscious effort not to cover his or her mouth and block a lip reader's view. If notes on the presentation are available, they would help the person with a hearing impairment who is trying to follow along with the sermon.

An ALD and hearing aid will not be as effective in a large room or sanctuary, so other systems must be utilized. *Assistive listening systems (ALS)* are systems used to project sound from one source to many people in the crowd. Four types of ALS's are used to help people with hearing impairments hear the service. The *hardwired system* is the oldest and least used system because of its inflexibility. It uses a headset which is wired directly to the sound system and the sounds are passed directly to the listener. However, the person using it must sit in the same place every service without moving around.

The other three ALS's are more modern and include the *inductance audio loop*, the *FM broadcast*, and the *infrared broadcast* systems. The inductance loop is a wire that surrounds the worship area and anyone inside the looped area with a receiver can pick up the signal. Hearing aids with the T-coil (or telephone switch) option can act as receivers so the user does not need an additional unit. The



The PPA Deluxe System from Williams Sound Corp. is an example of an assistive listening system that would improve accessibility in a church sanctuary.

wire loop acts as a large transmitter, and the T-coil acts as an antennae by picking up the electromagnetic signal from the wire and converting it to sound. The sound quality may be poorer on this system than on others. The approximate cost is \$900 for a loop system and one extra receiver. Fewer receivers are needed since 30% of hearing aids have the T-coil.

The remaining two ALS's operate in a similar fashion to each other. A transmitter is wired into the microphone of a sound system. The transmitter then broadcasts a signal across the worship area to hand-held receivers used by each person with a hearing impairment. The receivers look like hand-held radios, and a small headset carries the sound to the listener's ears. The volume on each receiver can be individually controlled by the listener.

The FM broadcast system is a low power radio broadcast signal between 72 and 76 MHz that will reach about 300 feet and will pass through the walls of a room. This system can be used to listen to a service from outside the room. If a person so desired, he or she could use the receiver and listen to the service from a car or outside the building. This system may have some static interference in the broadcast, but it allows the listener to move about the sanctuary freely and sit in various locations. The cost is about \$900 for a transmitter and four receiver units.

The infrared broadcast system has an infrared frequency transmitter that takes sounds and broadcasts a signal of invisible light at either 95 or 250 kHz, which the receivers pick up. The signal will not pass through the walls of the room, so privacy in the room is an option if necessary. The system cannot be used in direct sunlight, and there may be some interference caused by fluorescent lighting at 95 kHz. The cost is approximately \$1300 for a transmitter and four receivers.

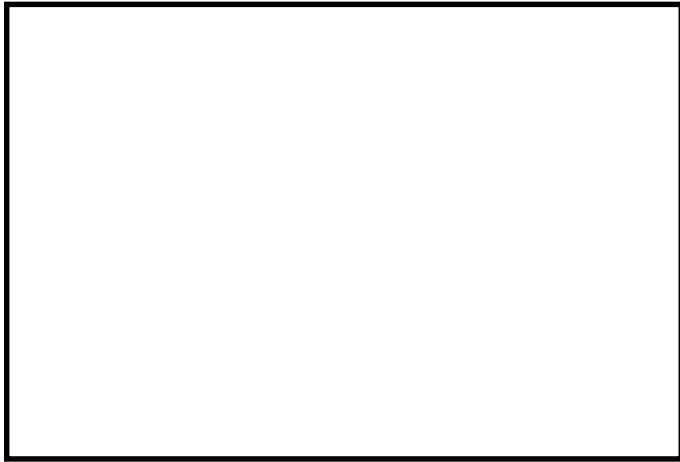
Videos are often used during worship services or subsequent classes. Videos with captioning provide printed text on the screen as it is spoken in the video. This allows people with hearing impairments to follow the video as it plays. Captioning can come in two forms, open or closed captioning. Open captioning displays the printed text at all times while closed captioning can be turned on or off by settings on the VCR.

Other items around the church that may help serve people with hearing impairments would be flashing fire alarms and a text telephone. If fire alarms are used, they should not only make sound, but also flash light to warn people with hearing impairments of danger.

The text telephone, or TTY, allows people to type and read messages into the phone instead of speaking and listening. A telephone relay service for people with hearing impairments is available in each state as required by law. The relay service acts as a translator between a person using a TTY and a person speaking or listening. A person using the TTY calls the relay service which then calls the desired recipient and passes on a message. The recipient responds to the message, and the relay operator types it to the TTY user. This process continues throughout the conversation to allow people without TTY's to communicate with TTY users.

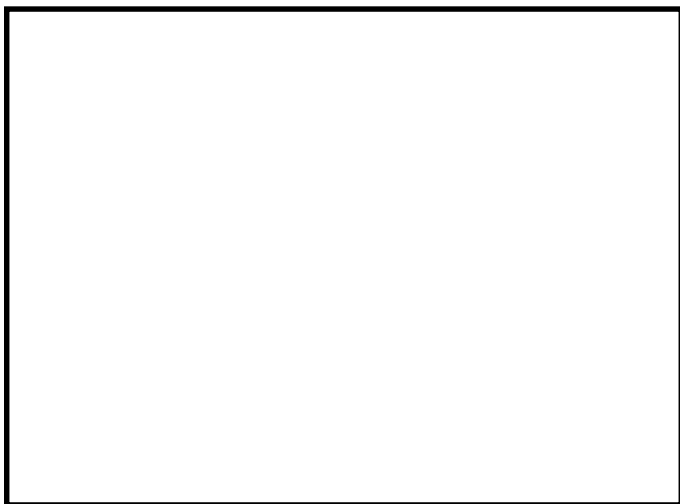
Vision

With 11.4 million Americans having some type of visual impairment, it is also important to take steps to accommodate people with low vision. Low vision means that the person can see objects 20 feet away in the same way someone with healthy vision can see when 50 feet away. Fully half of the people who are legally blind (those who can see at 20 feet what someone with healthy vision could see at 200 feet) are over the age of 65⁽³⁾. By improving the accessibility of the church to those with visual impairments, it will lead to more elderly people attending services on a regular basis.



A textured mat indicates the top or bottom of a ramp to enable someone with a visual impairment using a cane to identify their location.

The first way to improve accessibility for people with visual impairments is to help them reach the worship service if they cannot drive. It may be appropriate to have a member of the congregation provide transportation to the church services. If they are able to walk to church using a cane, make sure any curb cuts are striped with yellow paint or textured so rises can be detected by a cane. Ramps should have a texture difference at the top and bottom to help people using walking canes know when a slope change will occur. Wind chimes might also be hung by the church door to guide them by sound to the door.



Large print material is helpful for those with low vision.

Once inside the church, bright lighting helps people with low vision navigate more easily. Handrails along the walls and along stairways help provide stability and balance. If leading a person with a vision impairment, notify them of steps, slopes, resource materials, posted bulletins, and other pertinent information that they cannot detect. Books such as Bibles, hymnals and other printed materials are available in large print and Braille, and can be placed for use by people with low vision. Bibles and many other religious books can also be purchased on audio tape.

Low Vision Communication Tips

- ♥ Identify yourself.
- ♥ Speak the person's name to get their attention.
- ♥ Face the person and use a normal tone of voice.
- ♥ Give verbal cues when guiding.
- ♥ Describe materials being distributed or presented.
- ♥ Offer handouts and bulletins in large print.
- ♥ Tape services for future reference.
- ♥ Alert people of posted or resource materials.
- ♥ Inform the person when you leave the area.
- ♥ Provide magnifying glasses.
- ♥ Offer to have volunteers read newsletters, mail and lessons.
- ♥ Provide printed material in Braille. Ask state and national denomination offices for Braille resources.
- ♥ Provide newsletters, sermon notes, and lessons on computer disks.

THE CHURCH AND THE LAW

Those involved in churches and other religious organizations may be under the impression that because of the misinterpreted "separation of church and state" concept, laws protecting the rights of people with disabilities don't affect them. In fact, they may have read the exemption for private clubs and religious organizations in Section 307 of the Americans with Disabilities Act (ADA) and figured this is one law they don't have to worry about. This is not necessarily true.

Churches need to be mindful of the Act's mandates, and at least be aware of other laws in their state that may have an impact in three areas. The areas are employment, accessibility and new construction. This section includes the laws of the state of Indiana as an example of relevant state legislation in addition to the ADA*. Employment and accessibility are covered by the ADA and the Indiana Civil Rights Act (ICRA). New construction is regulated by the ADA Accessibility Guidelines and the Indiana Fire Prevention and Building Safety Commission (IFPBSC).

Employment

There are two laws that impact employers: the ADA and the states' civil rights codes. In Indiana, the Indiana Civil Rights Commission (ICRC) is directed by the Indiana

**Check with local and state officials to determine specific regulations in effect in other states.*

code which contains comparable language to the ADA. So, if the employment requirements of one are understood, the requirements of the other are generally understood. There are certain differences in the two, but not for the purposes of this article. The main difference to understand is that the ICRC enforces the ICRA and the Department of Justice enforces the ADA.

If a church employs fifteen (15) or more people for each working day in each of 20 or more calendar weeks in the current or preceding year, the law applies to how churches hire and employ people with disabilities. (Section 101 of the ADA and IC 22-9-5-10) Section 103 of the ADA and 22-9-5-22 of the Indiana Code reads:

In general. This title shall not prohibit a religious corporation, association, educational institution or society from giving preference in employment to individuals of a particular religion to perform work connected with the carrying on by such corporation association, educational institution or society of its activities.

Religious tenets requirement. Under this title, a religious organization may require that all applicants and employees conform to the religious tenets of such organization.

In other words, a church may require its applicants and employees to adhere to their religious beliefs, but they may not discriminate in their application or employment process against people with disabilities. As for an employer's specific obligations under the law, the Equal Employment Opportunity Commission has issued guidelines that goes into great detail about what is:

- a qualified person with a disability,
- a reasonable accommodation, and
- an undue hardship.

To get a copy of the laws and guidelines, contact the Great Lakes Business and Technical Assistive Center (listed under organizations in the resource section). A church, and any employer, runs into problems when they make employment decisions based on a person's disability rather than the person's ability.

Accessibility

Religious entities are exempt from the requirements of Title III (Public Accommodations) of the ADA (Section 307); however, if a religious entity rents their facilities to a non-religious tenant, the tenant is responsible for insuring access to those with disabilities. For example, if a community theater group leases a church auditorium for the group's performances, the theater group is covered under the mandates of Title III of the ADA and are responsible for accessibility. If the space is donated, the non-religious group is exempt.

The ICRA does not contain such an exemption, so the ICRA may investigate a complaint of discrimination. If from another state, check with that states Civil Rights Commission for specific applicable laws. The question of accessibility is answered by looking at whether or not a person with a disability can access the services (those things that an entity has to offer). Similar to the employment

section, if someone is excluded because of their disability, this could lead to litigation.

New Construction

The IFPBSC has developed a new building code that requires all new construction to meet physical accessibility requirements. Check specific state's Building Safety Commission to learn of relevant building code requirements. The new code in Indiana is consistent with the ADA's Accessibility Guidelines (ADAAG) in terms of widths, heights, slopes, etc. It is important to note that if building something that requires a building permit, construction has to conform to this code. As for the enforcement of this, be aware of the fact that the IFPBSC does not enforce the ADA or the ADAAG, but only the building code.

In most instances regarding accessibility in employment, accessibility and new construction, the best test of compliance is to look at the ADA because many of the laws in Indiana were patterned after the ADA. Of course, while churches may be exempt from these laws, they have a *higher mandate* to share with all people. This of course includes people with disabilities.

Ministries to Persons with Disabilities

The rural church is more than a building. It is also a community of people holding a common faith that have come together to worship and serve each other. In most rural churches, ministry and service are central to the life of the church. There are no second class citizens. When trouble strikes, it is often the church that corporately, or as individuals, responds in concrete ways to bring relief to the hurting. In some cases, these responses have become so common-place and institutionalized that they may not even be viewed as ministry but just the way it's always been done.

There is much that even the smallest rural church can do to enhance the quality of life for persons in the congregation with disabilities and ensure their inclusion into the community. The following are a few suggestions.

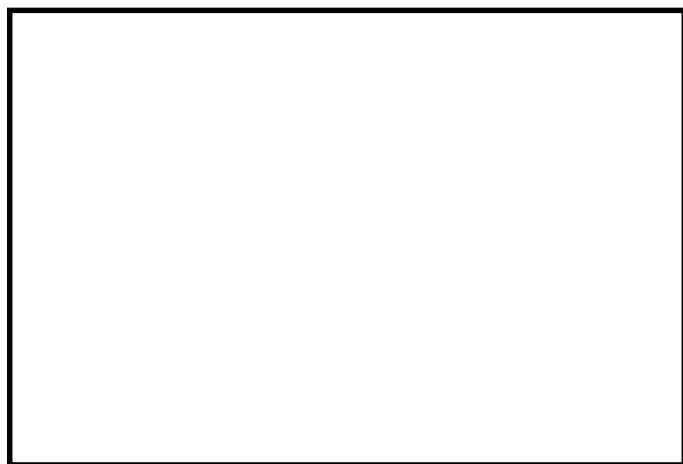
1. Make a congregational commitment to be accessible to everyone with a disability. Include an accessibility statement in the church mission document, use the universal accessibility logo on church stationary and advertisements, and let the whole community know that people with disabilities are welcomed and valued.
2. Encourage regular visitation to all those members who are recovering from a disabling condition or who are unable to participate in church-related activities. An ember left out of the fire will soon grow cold and burn out. Personal visits, phone calls, and cards can help every member feel attached and significant.
3. Make service to those needing assistance an everyday activity of the church. Everyone, without exception, will someday need someone to help mow the lawn, wash the windows, pick up groceries, or complete a multitude of other daily living activities. The folks in Washington, D.C. or any state capital will never be able to replace the caring assistance that can come from fellow members of a community of faith.

4. Offer workshops and other educational experiences that are directed at specific disability needs such as nutrition, caregiving, and home accessibility. Most communities have access to resources that can be tapped to conduct these activities. Don't be afraid to open these activities up to the community.
5. Provide formal and informal respite services to allow long-term caregivers the opportunity to take a break and refresh themselves. This can take the form of a specialized day care service or volunteering to take over for an evening.
6. Sponsor recreational and learning opportunities for members of the congregation needing specialized activities, but who may be unable to afford them. Sponsor a child to go to camp or participate in therapeutic horseback riding lessons, or cover the cost of a couple with a special needs child to attend a specialized workshop on providing appropriate care.
7. Encourage members of the congregation who are struggling to establish independence through their own business by purchasing their products and services.

CONCLUSION

What is the greatest barrier to making churches and other places of worship accessible to people with disabilities? Is it the steps out front? Is it the narrow doors or small bathrooms? Is it the dim lighting or old sound system? Is it the cost of the modifications? Or is it our attitude toward persons with disabilities?

Why aren't people using wheelchairs attending our churches? Why aren't people with disabilities seen around our community? Of course no one in a wheelchair comes to a church that has twelve steps up to the front door and no ramp or lift. It may be too much effort to simply get out into the community when there is no way to get from the street to the sidewalk, and few of the buildings have doors wide enough for a wheelchair. These difficulties may explain why so few people with disabilities are seen around our communities and in attendance at our churches.



The entire congregation can participate in making the church accessible.

The cost of making a church accessible can be minimal when divided among all the members of a congregation.

The most significant barrier to church accessibility is our unwillingness to consider the needs of all those who desire to worship with us. At times we give property a higher value than people. What is the value of welcoming all people with disabilities and their families to church? Does it not surpass the expense of a ramp, new sound system, or a change to the appearance of the church? A ramp is just not enough. Our hearts must open up and we must want to welcome people with disabilities and their families into our churches, for true access begins in the heart.

Truly accessible churches consider people with disabilities and their families a privilege to serve with rather than a burden to bear. Such service addresses the very mission of the church: all people working together to serve one another. Everyone is included in all services, meetings, activities, and leadership roles. They realize that all people have limitations, and denying access to certain people because of their limits is inconsistent with the life of the church. People with disabilities are the best experts on access, and their talents can be utilized along with the skills of others.

When the hearts of the congregation are open, motivation is from within and not forced. People with disabilities are then really welcomed, doors quickly become accessible, physical barriers are removed, and everyone can feel the support and warmth of being a part of the accessible community.

REFERENCES

- (1) *Assistive Technology Needs Assessment of Farmers and Ranchers with Spinal Cord Injuries*. Breaking New Ground Resource Center, West Lafayette, Indiana.
- (2) Plakke, B., and Dare, E. (1992). Occupational hearing loss in farmers. *Public health reports*, (107) 188-192.
- (3) American Foundation for the Blind (1987). *Low Vision Questions & Answers: Definitions, Devices, Services*. New York: American Foundation for the Blind.

RESOURCES

Organizations

University of Illinois at Chicago
 GLDBTAC (ADA information)
 1640 West Roosevelt Rd.
 Chicago, IL 60608
 (800) 949-4232

Mark 2 Ministries
 8605 Allisonville Rd., #155
 Indianapolis, IN 46250
 (317) 598-9147

Christian Church Foundation for the Handicapped
 PO Box 9869
 Knoxville, TN 37940
 (423) 579-0883

National Organization on Disability
Religion & Disability Program
910 16th St., NW
Washington, DC 20006
(202) 293-5960

Christian League for the Handicapped
PO Box 948
Walworth, WI 53184-0948
(414) 275-6131

National Catholic Office for Persons with Disabilities
PO Box 29113
Washington, DC 20017-0113
(202) 529-2933

National Catholic Office for the Deaf
814 Thayer Ave.
Silver Spring, MD 20910
(301) 577-1684

Free Bibles on Tape
Bible Alliance
PO Box 621
Bradenton, FL 34206
(941) 748-3031

Christian Fellowship for the Blind International, Inc.
PO Box 26
South Pasadena, CA 91030

Mennonite Mutual Aid
1110 N. Main St.
Goshen, IN 46527
(800) 348-7468

Special Education Ministries
Church of the Nazarene
6401 The Paseo
Kansas City, MO 64131
(816) 333-7000

JAF Ministries
PO Box 3333
Agoura Hills, CA 91301
(818) 707-5664

United Synagogue of Conservative Judaism
8080 Old York Road
Elkine Park, PA 19027
(215) 635-9701

Lifts & Ramps

Box Lifts, Platform & Seated Stairway Lift
Access Industries, Inc.
4001 E. 138th St.
Grandview, MO 64030
(800) 925-3100

Mobil Platform Lift
Adaptive Engineering Ltd.
3604 Burnsland Rd. SE
Calgary, Alberta
Canada, T2G 3Z2
(403) 243-9400

Stair-climbing Lift
Garaventa Accessibility
7505 134A St.
Surrey, BC
Canada V3W 7B3
(800) 663-6556

Elevators, Platform & Seated Lifts
Concord Elevator Inc.
107 Alfred Kuehne Blvd.
Brampton, ON
Canada, L6T 4K3
(800) 661-5112

Automatic Door Openers

Stanley
65 Scott Swamp Rd.
Farmington, CT 06032
(860) 677-2861

Dor-O-Matic
4640 North Oketo Ave.
Harwood Heights, IL 60656
(800) 815-1517

Hearing

Audex Assistive Listening Systems
710 Standard St.
Longview, TX 75604
(800) 237-0716

Assistive Listening Systems
Williams Sound Corp.
10399 West 70th St.
Eden Prairie, MN 55344-3459
(800) 843-3544

Vision

Low Vision Aids
LS&S Group
PO Box 673
Northbrook, IL 60065
(800) 468-4789

Miscellaneous

Threshold Ramps, Signs, Pipe Padding, Modular Ramps
Van Duerr Industries
426 Broadway St., Ste. 207
Chico, CA 95928
(800) 497-2003

ACCESSIBILITY CHECKLIST FOR CHURCHES

	Date Checked	Improvement Warranted	Improvement Made
--	-----------------	--------------------------	---------------------

EXTERIOR

- | | | | |
|--|-------|-------|-------|
| 1. Is parking provided for persons with disabilities near an accessible primary entrance? | _____ | _____ | _____ |
| 2. Is there a sidewalk without steps from the parking area to the accessible entrance? | _____ | _____ | _____ |
| 3. If ramps are necessary, do they have a slope of one inch for every 12 linear inches or less? (1 to 20 is better.) Do ramps have a level area every 30 feet or wherever they change direction? Are the sides of ramps adequately protected with handrails? | _____ | _____ | _____ |
| 4. Do signs clearly direct persons to ramps and accessible entrances? | _____ | _____ | _____ |

INTERIOR

- | | | | |
|---|-------|-------|-------|
| 1. Do all doors have a clear opening of at least 32 inches? | _____ | _____ | _____ |
| 2. Are doors easy to open (max 5 lbs. of pull)? | _____ | _____ | _____ |
| 3. Is floor level for at least 60 inches on each side of all doorways? | _____ | _____ | _____ |
| 4. Are water fountains, bulletin boards, etc. at a height accessible to persons in wheelchairs? | _____ | _____ | _____ |
| 5. Are braille signs and textured doorknobs provided at appropriate places? | _____ | _____ | _____ |
| 6. Is lighting, especially in corridors, adequate? | _____ | _____ | _____ |

RESTROOMS

- | | | | |
|---|-------|-------|-------|
| 1. Can persons in wheelchairs reach the restrooms easily and without assistance? | _____ | _____ | _____ |
| 2. Are toilet stalls large enough for a wheelchair? Do they have handrails? | _____ | _____ | _____ |
| 3. Is the sink accessible? Are the pipes under the sink insulated to prevent hot pipes from burning the legs of a wheelchair user? Are the faucet controls easy to operate? | _____ | _____ | _____ |
| 4. Are mirrors, soap, and towels accessible to persons in wheelchairs? | _____ | _____ | _____ |

SANCTUARY

- | | | | |
|---|-------|-------|-------|
| 1. Are several places for wheelchairs provided so that wheelchair users have a choice of seating? Such areas should be at least 36" wide, 52" long. | _____ | _____ | _____ |
| 2. Are aisles wide enough (36") for wheelchairs to pass? | _____ | _____ | _____ |
| 3. Is there a sound amplification system for the hard of hearing? | _____ | _____ | _____ |
| 4. Are braille and/or large print bibles, hymnals, and bulletin's provided? | _____ | _____ | _____ |

This checklist is only a general indicator of the barriers that may exist to persons with mobility, visual, or hearing difficulties. It is created to help churches begin to deal with the limitations of their buildings.

BNG Establishes an Endowed Scholarship

With an initial gift from Hubert Von Holten, President and founder of Round Grove Machine of West Lafayette, Indiana, a permanently endowed scholarship has been established to provide financial support to students with disabilities enrolled at Purdue University and who are pursuing careers in agriculture. The scholarship is being established as a means of honoring the contributions that Mr. Von Holten has made to improve the quality of life of farmers and ranchers impacted by

disability through his generous collaboration with the Breaking New Ground Resource Center and to bring attention to the unique “can-do” spirit that he has demonstrated throughout his life.

Over the years, he has taken the preliminary concepts developed by Purdue students and converted them into safe, functional, and marketable pieces of equipment that have provided the means for hundreds of severely disabled farmers to gain access to and operate agricultural tractors, combines, and other off-highway equipment. His tractor and combine lifts are found on farms across North America and clearly demonstrate the potential that appropriate assistive technology has to enhance the independence of persons with disabilities.

BNG has agreed to help match Hubert’s gift and work towards growing the endowment so that several students can

be scholarships recipients each year. If you are interested in supporting this effort, please give Bill Field a call at 765-494-1191 or send your check made out to The Purdue Foundation in care of BNG.

Breaking New Ground Staff Has Served Farmers for 20 Years

Twenty years ago a severely disabled farmer contacted the Agricultural Engineering Department at Purdue University requesting assistance with equipment modifications. As a result of this interaction, Dr. Bill Field started the Breaking New Ground Outreach Program to serve other farmers and ranchers with disabilities.

Under his leadership, BNG has served farmers and ranchers with disabilities and their families all over the U.S. and the world. His desire to provide direct services to families has resulted in thousands of on-farm assessments since 1979. More than 50 resources have been developed under his guidance. The BNG newsletter and technical Plowshares are distributed to more than 13,000 individuals across the U.S., Canada and 5 other countries. The staff of BNG desires to continue serving others and their work has resulted in numerous awards including:

- ◆ Best Practices in Independent Living
- ◆ Cooperative Extension Award for Diversity
- ◆ Innovative Caregivers Award
- ◆ Purdue University Dean’s Team Award
- ◆ ASAE Blue Ribbons

Dr. Field provides the leadership and direction for the Breaking New Ground staff shown in this recent photo.



Front row (left to right) Farmers, consumer/consultants with Souther Indiana Center for Independent Living (SICIL), Ron Thomas and Ed Bell; Denise Heath, has been part of the BNG staff since 1979; Michelle Stoller, student assistant. Back row (left to right) Doug Kingman, Graduate Assistant; Ned Stoller, Engineer; Bill Field, Professor and Project Director; Paul Jones, Outreach Coordinator/Resource Specialist; Aaron Yoder, Graduate Assistant; and Barry Delks, Resource Center Director. Not pictured: Ed Kirkpatrick, Editorial Resource Assistant and Al Tolbert, Director of SICIL.

RESOURCES AVAILABLE FROM BREAKING NEW GROUND




To Everything There is a Season...A Guide for Caregivers of Farmers and Ranchers with Disabilities

To Everything There is a Season...A Guide for Caregivers of Farmers and Ranchers with Disabilities is a self-contained resource package targeting rural caregivers. This resource can be used both by new and experienced caregivers as well as rehabilitation professionals to help caregivers in preparing for the stresses associated with caring for an individual with a disability or illness.

The resource package features an encouraging 45-minute videotape with advice from caregivers from across the country, experts in the field of caregiving, and an assistive technology specialist. Additionally, a written resource and brochure, filled with color photos, are included, that provide advice on many aspects of caregiving.

A Leader's Guide and overhead transparency masters have recently been completed to provide training materials for the educator or rehabilitation professional.

 *NEW Leader's Guide, Overheads, and Resource Package: \$85.00*

1999 Barn Builders

Barn Builders is a peer support network of farmers and ranchers with disabilities and caregivers. This resource is designed to help "connect" individuals who have recently been injured with other farmers or ranchers with similar disabilities or experiences. This resource includes 102 farmers and 35 caregivers representing 23 states and Canada. All the individuals listed have agreed to assist other farmers or ranchers by: talking with them; corresponding by mail and/or making farm or hospital visits.



 *Cost: \$15.00*

Summer Special

Identifying, Selecting, and Implementing Assistive Technology in the Agricultural Workplace. This guide provides assistance to rural rehabilitation professionals and other service providers in identifying, selecting, and using assistive technology that is appropriate for the agricultural workplace. Chapters address several topics, including: what is assistive technology, how to select the appropriate level of accommodation, developing creative solutions to agricultural workplace barriers and strategies for financing assistive technology.

Cost: ~~\$30.00~~ Now Reduced to \$20.00

Bridging Horizons

Bridging Horizons is a publication to provide FFA advisors with information to assist in their efforts to include all youth in FFA, including those who have disabilities. It contains sections on: cultivating independence and ways to improve accessibility in FFA facilities and programs; and case histories of members with disabilities who have successfully participated in FFA programs.



Cost: \$5.00

What's in a Name?

It's been know as "Volume II", "The Big Green Book", and probably many other informal titles. But no matter what you've called it, *Agricultural Tools, Equipment, Machinery & Buildings for Farmers & Ranchers with Physical Disabilities, Volume 2*, has been an invaluable resource to scores of professionals.

BNG is now in the process of updating the next edition of this resource, so we decided to give it a name that everyone could say in one breath: *The Toolbox*. And we think you'll like more than the name. After the printed version of *The Toolbox* is completed, we have plans to produce CD and worldwide web versions.

As you might imagine, producing *The Toolbox* is a mammoth task, and there's still much work to do. However, we're hoping to have it ready for use by the early months of 2000.

Order Form

To order, complete this form and mail with payment (U.S.) to: Breaking New Ground Resource Center, Purdue University, 1146 ABE Bldg, West Lafayette, IN 47907-1146

Name _____ Phone Number _____

Address (no P.O. Box #'s please) _____

Resources ordered _____

Amount enclosed \$ _____

(765) 494-5088 (Voice/TT) * 1-800-825-4264 (Voice/TT) * (765) 496-1356 (FAX)

DIGGING DEEPER

Resources to help you break new ground



Rhino Post Drivers

Driving fence posts is a physically demanding job and may be impossible for some ranchers with disabilities. The Rhino PD-55 (post driver) is easily operated by one person.

A reciprocating piston strikes directly on the drive cap or post. The drivers are lightweight and portable. Air powered post drivers could be used by ranchers with back impairments or decreased strength. For more information contact Rhino Tool Company, 620 Andrews Ave., P.O. Box 111, Kewanee, IL 61443 or 309-853-555.



Rhino air operated post driver.

Canine Group Offering Free Service Dogs

Canine Assistants, Inc., a non-profit group that trains dogs to assist adults and children with physical disabilities, is accepting applications from qualified people to receive a free dog. The offer includes full training for both the individual and the animal, as well as lifetime veterinary care and feeding, according to CA officials.

To receive an application, interested persons should call Canine Assistants at 770-664-7178. Recipients will be selected through an application review and personal interview.

Canine Assistants dogs are given extensive training, and upon graduation of the program, can perform a variety of tasks, including opening doors and retrieving dropped articles. In addition, the organization trains seizure response dogs for people with epilepsy and seizure disorders.

Jennifer Arnold Bruner founded Canine Assistants after being diagnosed with multiple sclerosis. Since its launching in 1991, CA has matched nearly 200 dogs with grateful recipients in 12 states.

Stanley Introduces New Access Door Operator

The Stanley Works, a worldwide supplier of tools, hardware, doors, and a variety of other products, has developed a new low-energy automatic door operator that turns manual doors into automatic doors. Called the MA900, the unit is a compact, electromechanical, spring-closed, low-energy swing door operator.

The opening speeds and forces of the MA900 are designed to meet the needs of the physically challenged, company officials report. The unit is field-adjustable to comply with ADA laws and codes, and is suitable for retrofit or new installations.

Conveniently packaged in a single box, the unit can be installed by one person and works with metal, wood, or glass doors, whether hinged or offset pivot.

The operating mechanism can be activated by a touch of the door, external sensors, switches, or pushpads. It can also be radio controlled or hard-wired. For more information about the unit, contact 1-800-STANLEY or www.stanleyworks.com. You can also contact Joe Halloran, 1-800-7-ACRES.

Man-Lifts for Sale

John Deere 6620 Series Combine Platform Lift - This farmer-built platform lift is powered by an electric winch and is operated with a small lever located at shoulder height. The steps were removed and the lift was bolted on in its place. It could be mounted on any 20 series John Deere combine. The platform is designed to automatically stop if the cable breaks. A hand rail is mounted for stability along with a crutch hanger. Al Copeland is asking \$2500 and can be reached at 317-326-8133.

Kubota L35 4WD Loader Tractor with Hydraulic Lift and Hand Controls - This tractor has only 45 hours on it and is adapted for a farmer or landscaper who needs a lift and hand controls to operate a tractor. The lift is hydraulically actuated and the lift seat docks into the tractor so no transfer is needed from the lift to the tractor. The starter switch, steering, hydraulics, and all other controls are located on the arm rests of the lift seat so they are readily accessible. Elvin Heisey is asking \$38,000 for the tractor and lift, and can be reached at 717-426-4650.



Kubota L35 4WD with hydraulic lift and starter switch, steering, and hydraulic controls all on the arm rest.

Problem Solved!

If you have a solution you would like to tell us about, please send in a description of the item or technique and a photograph. You may also call Breaking New Ground at 1-800-825-4264 and talk with Ned Stoller if you have a solution to share or have questions about this column.

Problem: Entering a pasture or livestock lot without leaving the vehicle to open or close gates

Solution: Drive Through Gates

Idea From: Ecklund Drive Through Gates
Box 700
Broadview, SK, Canada S0G 0K0
(306) 696-3272; Fax (306) 696-2408

Estimated Cost: \$187.00

Many farmers and ranchers have cattle in pastures and feed lots and must often pass in and out of the lots through gates. When driving a vehicle, they must leave the vehicle, open the gate, drive through the gate, leave the vehicle, close the gate, and then get back into the vehicle. This is a long involved process for someone with a mobility impairment such as spinal cord injury or lower extremity amputation.

To address this problem, gate opening and closing devices have been developed to help farmers and ranchers with lower extremity impairments. One of these devices is the **Ecklund Drive Through Gate**. It is a single-arm, adjustable length (between 10' and 16 1/2'), electrified gate that allows entry and exit without dismounting from the vehicle. It is insulated from the post when properly installed using the two lag bolts and the special insulator bushings supplied.

The gate does not scratch vehicles or get caught in tractor lugs because as the gate is bumped, it "pops" open and the vehicle is able to pass through before the gate

swings shut. The gate always moves faster away from the vehicle than the vehicle is driving through. After swinging shut, a latching mechanism holds the gate and resists wind forces until the gate is bumped by a vehicle. Ecklund offers a 10% discount to farmers with disabilities.

Ecklund reports that the drive thru gate doesn't wrap up in your 4WD tractor tires.

The electrically conductive rubber bumper sleeve has a cushioning effect while still maintaining an electrified cattle gate.

Breaking New Ground Resource Center
Purdue University
1146 Agricultural & Biological Engineering Building
West Lafayette, IN 47907-1146

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