

STEP 2 — Preparation of the Project Area.

Prepare the bunker to be renovated by first removing the sand from the face and base of the bunker slope, so as not to contaminate the sand with soil. Then, cut the desired angle into the slope of the soil base.

The desired angle is the backbone against which the sod strips will be butted.

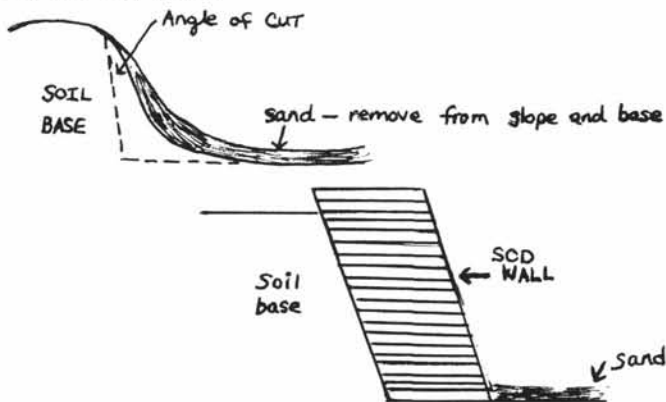
STEP 3 — Construction of the Sod Wall.

Before building the sod wall, in addition to the sod, a supply of sand or soil will be needed as filler between each layer of sod, similar to the mortar between bricks in a brick wall. The soil/sand is used for the following reasons:

- 1) The sand/soil helps solidify and stabilize the sod in the sod wall.
- 2) It is used to fill in cracks and low spots in the sod wall.
- 3) The amount of sand/soil needed will also depend on how thick the sod is cut. The greater the amount soil cut with the sod relates to less sand/soil needed.

There are two methods to stacking the sod for the wall. The first method is to place each piece of sod soil surface down and filling the sand/soil between each layer. This type of stacking will show less of a layering pattern than the second method.

The second method is to place the first layer soil surface down, then add the soil/sand to cover the grass side for a level surface and place the second strips of sod grass side down. Therefore, the wall will have interfaces of soil-soil and grass-grass. The sand/soil will be used only between the grass-grass interface, or every other layer. Continue stacking and butting the sod until the desired height is reached. An additional layer or more of sod can be added to compensate for any compaction or settling that may occur.



My preference is for the second method because it gives a better brick like or layered appearance than the first. After a period of time, the grass interfaces of the sod wall will grow out and provide a beautiful grass faced bunker. The grass can be trimmed if the layered appearance is preferred. Also, the life of the bunker face will probably be increased if it isn't exposed toward the southern horizon and the hot summer sun.

Credit: Ron Crowley, Golf Magazine

Negotiating for Success

by John Turner

Negotiations are an important part of our everyday lives. Virtually all interactions we have with others include possibilities for negotiations. The value in successful negotiations comes from the philosophy to create a "win-win" situation. That is both parties perceive they have hammered out an agreement that fulfills their concerns and real needs. Each emerges feeling like a winner!

Can you think of a recent situation that you have negotiated a deal and won or lost? Winning or losing an agreement is determined by the amount of planning necessary for discussing any proposal. Negotiating on several key issues about a subject will result in more favorable responses than focusing on only one key point. Therefore, in any negotiation ... never, never negotiate on **only one** issue!

When establishing a good negotiating proposal, one requires a firm action plan. A series of steps can be useful for organizing your thoughts on developing a persuasive argument. They are:

1. Develop a case
2. Justify the need
3. Provide the facts
4. Offer a resolution.

Should the process breakdown or fail, then one needs to obtain more information concerning the subject. It is estimated that planning may represent approximately 90% of the entire negotiation process. So it is vital to consider in detail strategies and a clear concise plan for presenting your ideas.

So the next time you begin to negotiate an idea, implement an action plan that illustrates several issues on "what's in it for me" and "what's in it for them". The end result: a successful win-win event that provides satisfaction to both parties.



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MAGCS Clinic — November 18

by Dave Blomquist

Capt. Al Haynes, United Airlines

Mike Bavier/Gordy Whiteveen, "South African Golf"

Roger Stewart, "Ameritech Senior Open"

Ed Fischer/Craig Joscelyn, "High Maint. Low Play -
Low Maint. High Play"

Tony Rzadzki/Fred Behnke/Terry Dillner, "New Supt.
Roundtable"

Pat Kelly/John Maguire/Chuck Totten, "Mechanics
Roundtable"

Vince Dodge, "Superintendent — Assistant Interactions"

Jerry Taft, "Our Goofy Weather" (tentative)

NCTE

Workshop — Bruce Williams, "Teamwork Approach Towards
Golf Course Maintenance" — Nov. 30

MAGCS Session — Roundtable Pesticide Discussion — Dec. 1
Participants: Dr. Frank Rossi, Dr. John Harkin,
Dr. Tom Long, Dr. Bill Jameson, Ms. Camille Stauber,
Ms. Barbara Mullarky

Remember to attend the proposed By-Law Explanation meeting that will be held on November 4th at the Oak Brook Hills G.C. at 4:30 p.m. in the Yorkshire room. Bruce Williams will chair the meeting.

This fall we plan a full education agenda. Keep the following dates open:

November 18 — Midwest Clinic at Medinah C.C.

November 30 — MAGCS Workshop at the NCTE

December 1 — MAGCS educational session at the NCTE

At the clinic, local superintendents, assistants and mechanics are going to share their ideas with us. Our "Keynote Speaker" will be Captain Al Haynes. Some may remember Captain Haynes as the pilot of the ill fated C-10 that crashed in Sioux City, Iowa. He has an informative, exciting and inspirational presentation.

Bruce Williams, Superintendent, at Bob O'Link Golf Club will present a workshop that is open to and geared for your entire crew. Bring your assistant, mechanic, spray technicians, and laborers to gain some insight towards working as a team to accomplish your goals.

For the MAGCS session at the NCTE, we are going to have a "Roundtable" pesticide discussion. University specialists, government officials, and local lobbyists will discuss the hottest pesticide related issues. This will be an excellent opportunity for superintendents to bring anyone who has shown interest in your plant protection program, either good or bad. The MAGCS will allow these parties free admission to this particular session as long as you have contacted Dave Blomquist beforehand. Superintendents will gain valuable knowledge when dealing with "adverse" parties if you attend this session.

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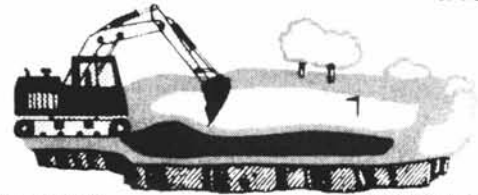
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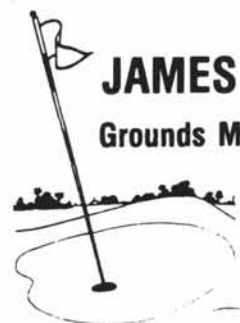


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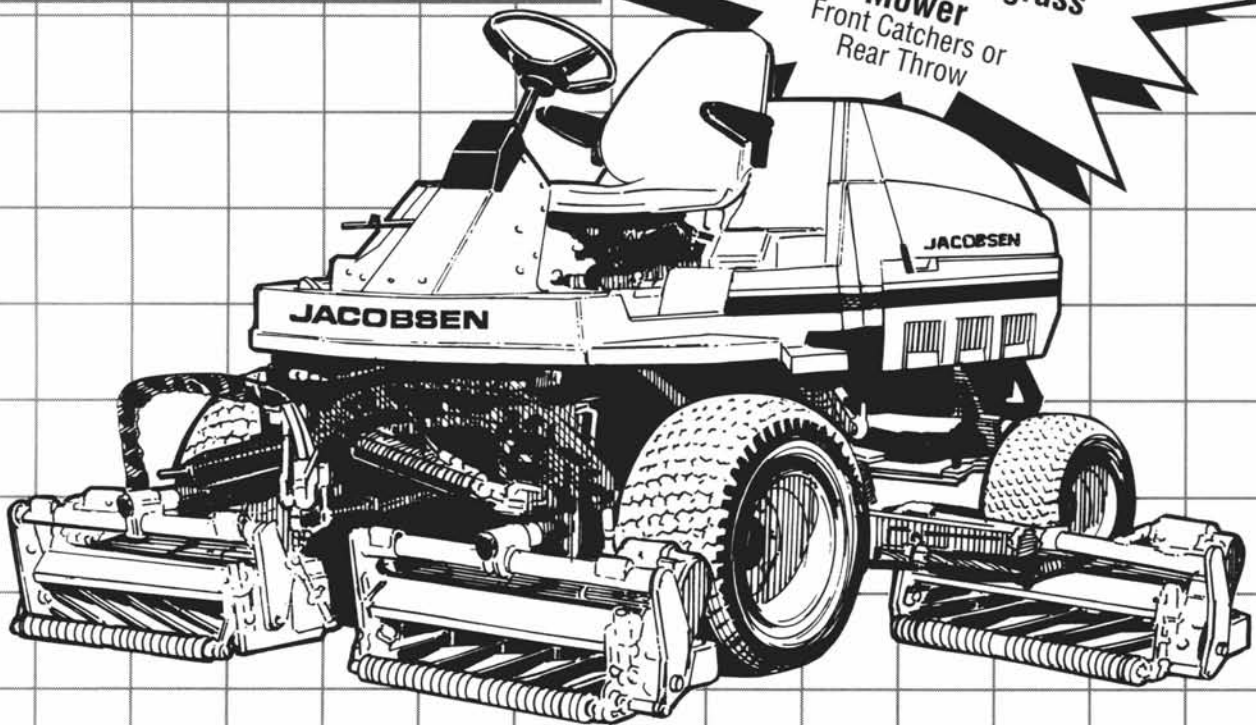
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Upcoming Events—Mark Your Calendar

October 5 — ITF Golf Outing at Olympia Fields C.C.

October 12 — MAGCS monthly meeting at Settlers Hill G.C.

October 23 — Fall Dinner Dance at River Forest C.C.

October 27 & 28 — Wisconsin Golf Turf Symposium, please note the new location this year: Hyatt Regency Hotel.

November 4 — By-Laws meeting at Oak Brook Hills G.C.

November 18 — MAGCS Clinic, Medinah C.C.

November 30-Dec. 1 & 2 — NCTE at Pheasant Run Resort

January 23-30, 1993 — GCSAA Conference & Show, Anaheim, CA

April 26, 1993 — MAGCS monthly meeting at Geneva G.C.

June 21, 1993—MAGCS monthly meeting at River Forest G.C.

July, 1993 — MAGCS monthly meeting at Poplar Creek G.C.

NECROLOGY

It is with a deep sense of loss that we announce the deaths of two of our long time members. Walter Domm of Chicago Heights, a retired greenskeeper at many south side clubs, died Friday, August 28. Mr. Domm was a Class AA member of the GCSAA. He was employed at Olympia Fields C.C., Midlothian C.C., Calumet C.C., South Shore C.C., Silver Lake C.C., and Cherry Hills C.C. Mr. Domm was 84 and is survived by his wife, Florence.

It is with a deep sense of loss that we announce the death of Warren Kris Nadler, 23, son of William Keith Nadler of injuries sustained in an automobile accident on August 29, 1992.

Ben Warren passed away on August 20th in Tucson, Arizona. Please read Dudley Smith's "Chicago's Gentle Ben" on page 18.

A couple of the courses have some good size projects going on. Julius Albaugh at Westmoreland holds the #1 position here in having almost every hole being worked on. A new practice tee, two fairways being moved, over 75 trees moved, two new greens and a practice green, old shop and buildings torn down and a new maintenance building built, new traps, new tees and I know I left out something. Maybe Julius will be good enough in the winter months to write an article on all that took place.

Bill Aiston at Lake Shore C.C. is digging a new lake and having the city of Northbrook run a water line through the middle of his course. During this time a new irrigation system will also be installed.

Terry Dilner reports that he has hired a new assistant at Woodmar C.C. — Congratulations Mike Moran!

October 21 — Settlers Hill G.C. — Event is the annual MAGCS College championship. Format will be a 2 man scramble and a college must have at least 2 two man team scores to qualify for the championship. The college championship winner is gross scores only. You must play with only your partner from your college. May play with another team from another college. The winner will be the college with the lowest two team gross total. Prizes will be awarded in both gross and net. The team net score will be determined by adding the two handicaps together, dividing by two and taking 80%. This number will be subtracted from the team score. There will be a non-college open division as well.

Event Chairman — Kerry Blatteau

Pre-Event co-chairman — Brian Bossert

Post-Event co-chairman — Mike Bavier

Congratulations to Kerry Blatteau on becoming Certified on July 1, 1992.

Remember to get your dues in and include the informational sheet along with it. Enter your fax number and a mobile phone number if you have one and would like to have it listed in the next directory. As with most directories, they seem to be outdated as soon as they are printed. Please make your corrections and send them along to our Executive Secretary.

Congratulations to MAGCS member Fred Behnke of Mt. Prospect Golf Course for being featured in the "First Person" article in the "Chicago Tribune Magazine" on August 30, 1992.

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Kenneth R. Zanzig

Remember to make reservations and to pre-pay for the Fall Dinner Dance at River Forest C.C., October 23. Hosted by Debbie and Joel Purpur. Cocktails at 7:00 p.m., dinner at 8:00 p.m. Open Bar after dinner is sponsored by Nadler Golf Cars. Music and dancing from 9 till midnight. \$70.00 per couple. Reservations: call 708/820-8181 and mail the pre-payment to: MAGCS, P. O. Box 248, Eola, IL 60519.

Chicago's "Gentle Ben"

by Dudley Smith

A dear friend of the Midwest Superintendents, Ben O. Warren, passed away on August 20th in Tucson, Arizona. In recent years he had suffered from heart disease, colon cancer, and most recently Alzheimers disease. The tired old machine just ran out of oil. Ben Warren was 82.



In 1938 Ben started Warren's Turf Nursery and built the business into the world's foremost sod producer. We are familiar with only the local Palos Park and Sullivan, Wisconsin farms.

In World War II Ben was decorated with the Bronze Star for gallantry as a Marine Medic in the South Pacific campaigns. He helped surgeons sew up the wounded while dodging Japanese machine gun fire.

A quiet man with an inquisitive mind, if Ben could not find what he needed; he built it. Ben Warren held eleven patents. I remember the automatic cut-off on the sodcutter (Ryan), the field harvester that rolled the sod and fed it to a conveyor (Brouwer), a shredder that cut bent sod into stolens, and washed bluegrass sod for Dr. Bill Daniels Prescription Athletic Turf. Ben let me use an old Ford dumptruck modified with a PTO Royer to blend our own topdressing.

The office wall at Warren's Turf was adorned with many plaques, but in his barn out back you saw his next invention.

Many years ago, I gave a talk at Penn State about 11:00 a.m. on the problems and mishaps of working with student labor. It was a humorous slide presentation that had even Grau, Musser, and Duich laughing. Ben Warren was the next speaker, "Updating the Sod Industry" at 11:30 a.m. Ben approached the podium and said, "I can't follow an act like that. Let's go eat!" Standing ovation!

Another year I had three new greens to sod before snowfall. Ben said that his Toronto C-15 sod was not mature enough to market, he urged me to hold off until spring. He offered to fly me to Sullivan to inspect the bent sod. When we approached for a landing, we were almost killed as thousands of startled Canada geese took flight.

Ben respected two professors, Dr. Reed Funk, Rutgers University; and Dr. Richard Smiley, Cornell University. He even sponsored two of their graduate students. We know the students today as Dr. Bill Meyer, Oregon seed geneticist; and Dr. Hank Wilkinson, Illinois pathologist. Ben Warren was a very generous person.

When the Illinois Turf Foundation was founded in Champaign-Urbana, who was a charter member and the organization's first president? When the Musser International Turf Foundation was founded, who was the treasurer for over ten years?

(cont'd. page 17)

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(Gentle Ben cont'd.)

When Paul Butler built his monster golf links in Oak Brook, he selected Art Benson, Sr. and Ben Warren as his turf advisors. The fairways would be sprigged with a new dwarf hybrid bluegrass, Warrens' A-20; the greens would be stolonized with Toronto C-15 bent. How distressing it must have been for Ben Warren to hear the touring pro's cursing as they hit "flyers" from his bluegrass fairways. Follow that with the downfall of Toronto C-15, as it succumbed to the dreaded bacterial wilt disease. Ben related, "This means the end of vegetative creeping bents, but ... tomorrow is another day."

In 1982 at the National Turf Conference in New Orleans, President Mike Bavier presented Ben Warren the GCSAA Distinguished Service Award.

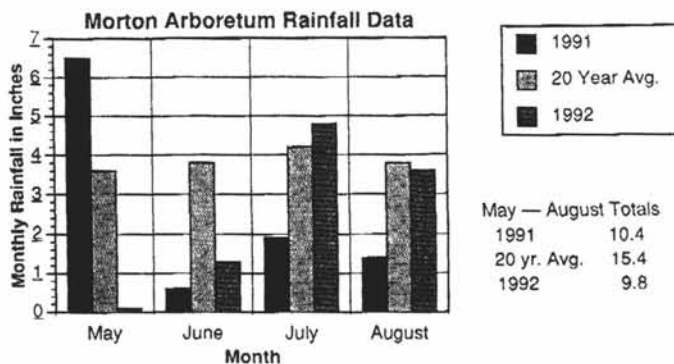
A quiet, attentive scientist, "Gentle Ben" was a giant in our turf profession.

His widow is our former MAGCS executive secretary, the charming Dorothy Carey Warren. Please write Dorothy at her home: 1900 W. Sage, Tucson, Arizona 85741.

The Season of 92 — What Happened?

by Rex A. Bastian, Ph.D.
Hendricksen, the Care of Trees

The spring and summer of 1992 have been another "abnormal" year. If we look at the rainfall data from the Morton Arboretum, we can see that 1992 was indeed very dry. Weather patterns greatly affect pest populations. This is not new information, but I would like to discuss a few principles that we should remember concerning the relationships between tree pests and the weather.

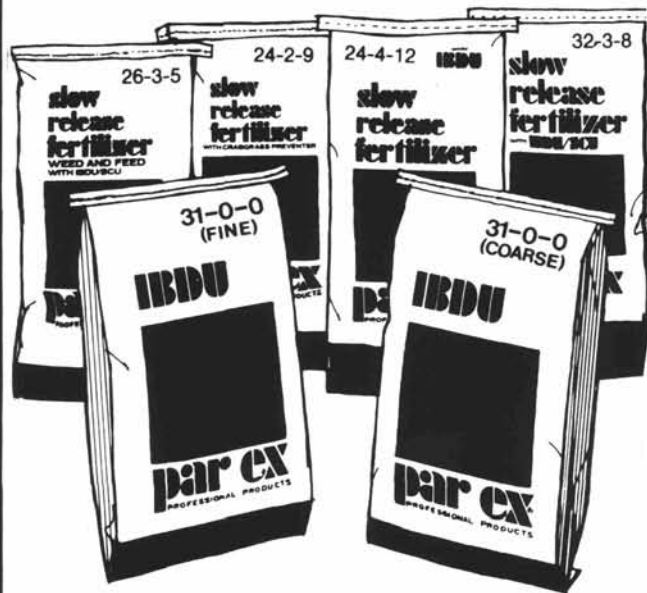


We observed quite a decrease in tree diseases this year compared to last year. As with turf, most tree diseases are caused by fungal pathogens. As arborists, the most bothersome diseases we deal with are the scabs, rusts and anthracnoses. Scabs and rusts cause the most problems on crabs and hawthorns. Anthracnose diseases cause the most problems with sycamore, ash and maple.

(cont'd. page 18)

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(The Season of '92 cont'd.)

Because of the dry spring weather, scab, rust, and anthracnose were not much of a problem this year. These diseases didn't go away completely because they can always be found where air circulation is poor or where overhead irrigation is common. Over the general landscape, however, fungal disease populations were low.

We notice that when diseases are absent for a year, people tend to forget about them. This can be a serious mistake. Just because a disease was not present this year doesn't mean it will not be present next year. If May of '93 is as wet as that of '91, rest assured that foliar diseases will be back in force.

When we consider plant diseases, we know that preventive fungicide applications can be very important. Once established, it is almost impossible to "cure" diseases of woody landscape plants. When looking at budgets for the upcoming season, don't forget to include a slot for disease management on susceptible trees in crucial locations. If you know your trees are resistant to a certain disease (i.e., 'Donald Wyman' crabapple is scab resistant) it is reasonable not to treat. The same holds true for trees in out of the way locations where a diseased tree will have little visual impact. For those trees that are important or their susceptibility is unknown, the adage, "An ounce of prevention is worth a pound of cure," holds true.

A similar situation applies to insect pests as well. Remember last November? During the early part of the month there was a rapid temperature drop from the 50's into the teens. A couple of weeks later, many of our Scots pines began to turn brown as a result of cold temperature injury. A similar situation occurred during the early part of March. As the trees began to leaf out, we observed substantial dieback in many species. Hardest hit were the Siberian elms, willows, maples, cotoneasters and spireas.

What does this have to do with insects? Well, if the winter weather is hard on plant materials, it is usually hard on overwintering insects as well. Even though last year was one of the mildest winters on record, rapid temperature fluctuations injured both the trees and the insects. I predicted heavy soft scale infestations this year based on last year's observations. It didn't happen. Soft scale populations were very low this year. Why? The overwintering crawlers could not handle the rapid temperature changes. Other insects, such as the honeylocust plant bug and leafhopper, were unaffected. Their overwintering eggs are located inside the twigs where they are more protected.

The moral of the story is to pay close attention to the weather. It has a significant impact on both insect and disease populations. Spending a little time learning the life histories of the common pests in the area can help us determine what impacts, if any, we might expect from the weather.

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Dr. Norm Hummel - Cornell University
Mr. Jim Moore - USGA Green Section, Mid-continent Region
Mr. Bill Huber - Huber Sod Farms
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The Registration fee is \$75 in advance/\$100 at the door which includes lunch and cocktail gathering on Tuesday. Room reservations can be made through the Hyatt direct at 1-800/233-1234. Be sure to inform reservations clerk that you are attending the Wisconsin Turf Symposium to obtain a special rate.

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Lightning Protection for Golf Courses

by Jeffrey A. Hager

Golf course lightning protection, a topic that interests most of us. What really can we do about it? While the golf course may seem to be a special problem for the lightning protection installer the real headaches are with the Superintendents who are charged with the duty of finding an answer to all the questions the grounds committee asks.

What can we do about it, who can install it, why does it cost so much, what liability do we have, does lightning protection really work, and if it does work, how does it work?

To start at the beginning, the first thing that must be done is find a reputable installer who has experience working on a course. After working all year on your fairways, you don't want some guy driving his four wheel drive pick up all over the place. This is probably a priority for you but the real qualifications are whether or not he is a listed contractor with Underwriters Laboratories, Inc. (UL). UL is located in Northbrook and by calling 708-272-8800 you can verify the listing status of a contractor.

By using a UL listed contractor, you can obtain the Master Label for any structural installations you have done. This label is your guarantee that the installation was made in accordance with current UL standards and practices. If the contractor can't or won't deliver the Master Label, then he probably is not worth having on the course. Don't be fooled by any other certifications, the Master Label is the only disinterested third party "certification" process.

SHELTER PROTECTION

Shelter protection is really quite simple. However, with all lightning protection work, if improperly done, you may create a greater hazard than if you did nothing at all.

Most shelters are either a straight gable or a pyramid or hipped roof. Basically, air terminals or lightning rods must be spaced no further than twenty feet apart and be installed within two feet of the end of the ridge. With this in mind, if you have a 10' long shelter, you need two air terminals. If you have a hipped roof shelter, only one terminal is required. Flat roofed shelters require air terminals around the perimeter, all being within two feet of the roof edge and outside corners. In all cases there must always be at least two paths to ground. If you have a shelter with only one cable leading to the ground, it has not been installed correctly. The down conductor cables should be covered with a PVC cable guard. This not only done for safety, but also to help minimize damage to the system.

Grounding for the systems should consist of 5/8" copper clad ground rods, driven vertically into the ground for a minimum depth of 10 feet. If the shelter has a dirt or open floor, a ground loop conductor should be installed around the perimeter of the structure connecting the ground rods. This will help reduce the risk of injury from dangerous ground currents from near by strikes to anyone standing on the bare ground.

Ideally, consideration should be given to the installation of a raised or non conductive floor.

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