

Metamorphosis —

Maintenance barn to maintenance facility

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As golf course superintendents are trying and succeeding in improving our professional image, it's time to also improve and update the image of the old maintenance barn.

Although this article is geared more toward the design and building of a new maintenance facility, there are areas that could be useful in renovating or upgrading of an existing facility.

The first thing you need to do in planning a maintenance complex is to be as up to date as possible on all of the local, state and federal regulations pertaining to this type of facility. Most of the time, you would take your layout to an engineer or construction consultant and let them put the finishing touches on your plan, making sure it conforms to all of the pertinent regulations. They will come up with a set of working drawings and a set of specs for the proposed builders.

Remember that you don't often have a second chance to design or build the facility. Take your time and think through all the different aspects of the facility, from adequate parking, equipment and fuel storage to office space. I'm no expert in the field of design, but I have been fortunate enough to have been involved in the design and construction of three maintenance facilities. If there is a single most important thing I brought to these facilities, it was convincing the ownership that this was a very important piece of the development puzzle. This is the hub of all maintenance that is performed on the project. It has to be efficient, well designed and well run, with safe operation as the foremost aspect of the facility.

With that said, I would like to touch on certain design criteria that should be considered.

Office, lounge and restrooms

It is important that each person on your office staff has a place to do his or her paperwork and reports.

The lounge should be sized so that it will allow the entire crew to sit and eat, or attend staff/safety meetings. It should have a minimum of a refrigerator, microwave and sink. We sized ours so that we could include lockers for employees. This keeps the jackets, rainsuits, etc., from laying around. We also have a TV and VCR in this area to help us in training and safety meetings. This is also the area where we keep our haz-com plan and other important information.

Restrooms should be designed to accommodate maximum staff size.

Equipment, small tools storage

The equipment storage area should be well thought out. Every piece of equipment should have its own place. Nothing is worse than having to move 2 or 3 pieces of equipment to get to the one you need. Also, the more equipment you can keep

under cover, the longer it will last.

Small tool storage is also in this building. We have a 15 x 15 caged area that can be locked and is adequately sized to store hand tools.

Mechanics office, shop and parts

These areas should be adequately sized according to your equipment inventory. The mechanic needs to do his paperwork, parts inventory, parts ordering, preventive maintenance reports and fuel reconciliation and monitoring reports. Most important, it should be an area that can be secured, or at least out of the main flow of traffic. Employee accessibility to this area should be restricted to eliminate potential liability and insurance risks.

Chemical, fertilizer storage

There are a couple of options pertaining to these areas:

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Practical Application III Fiddlesticks Country Club

LOU CONZELMANN, SUPERINTENDENT

Currently there are two beneficial nematodes available for the control of mole crickets: *Steinernema scapteriscus* (Proact) and *Steinernema riobravis* (Lesco, Vector). I have not had experience with the Vector product, therefore I cannot comment on its performance. My experience with *Steinernema scapteriscus* began several years ago when Fiddlesticks Country Club became a site where research through the University of Florida was conducted using these nematodes. Through the years I have seen this product effectively kill many mole crickets.

The nematodes carry a bacteria which is released into adult mole crickets. After entering the nematode, the bacteria kills the mole cricket within a couple of days. They are most effective against adult mole crickets, so are best used in the spring and fall when adults are present.

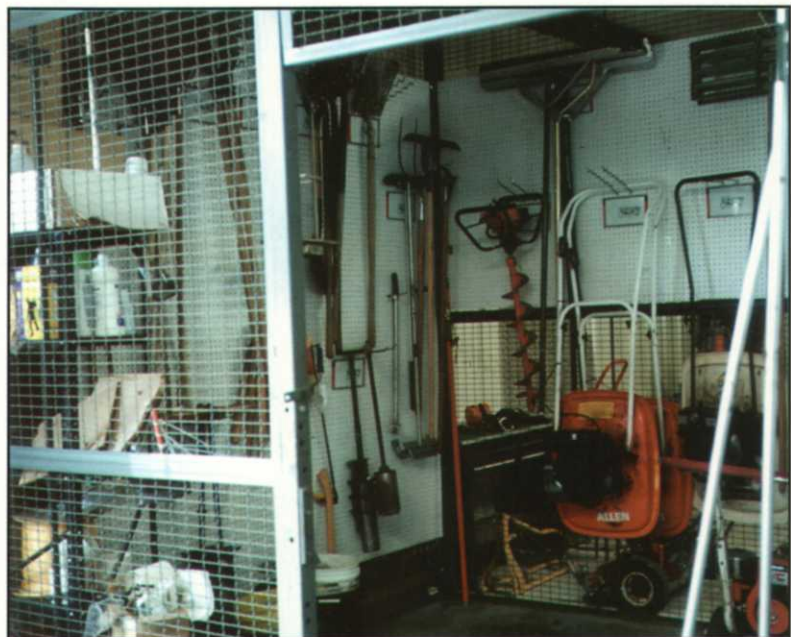
I have seen mixed results with Proact applications. I attribute this to application methods. Since ultra violet radiation is harmful to the nematodes, they need to be applied at dusk or later. Also, the turf should be irrigated before and after application. Fertigation systems can also be used to apply nematodes. I haven't used the fertigation system for nematode application, but I'm beginning to do some experimenting with it. I feel that it may be an excellent method of nematode application.

As with chemical insecticides, nematodes need to come into contact with the mole crickets. Timing of application and thatch now come into play. Recently, I





The Sanctuary maintenance facility (left). Note the required containment around fuel tanks (background) and the fertigation tanks (right). Below, are indicated proper storage of chemicals (left) tools and equipment (right).



- 1) Prefab metal type building, or
- 2) Concrete structures

We chose the concrete structures. An article in the *Leader Board* from the GCSAA is a good guideline for this area. You need to have a dedicated storage building, not vulnerable to flooding, and accessible to fire engines and delivery vehicles. It should have an Impermeable concrete floor with bermed perimeters to catch and hold spills. Good ventilation fans and spark-proof wiring help prevent explosions and fires. Security, particularly locks and inaccessible windows, emergency supplies and first aid station with emergency shower immediately ac-

cessible should also be available. The size of this structure would depend on your operation. There should also be an impermeable surface outside the chemical storage area for your mixing and loading.

Fuel storage

There are three basic options:

- 1) Above ground storage tank (AST) with self-containment (e.g. Convault) steel tank that is encased in concrete.
- 2) Underground storage tank (UST). You gain more space with this type, but there is more monitoring and record keeping.

We chose the third option:

- 3) An AST with a containment wall around it. With this type of fuel storage, the area has to have impermeable floors and walls. Walls should be poured solid and reinforced. The containment area should be sized so to hold at least 110% of the largest tank.

All of the different types of storage areas should have overfill protection, leak detection and an impervious surface for filling of equipment and vehicles. For any of these tanks, you must meet the insurance requirements for financial responsibility.

Storage bins

Storage bins for topdressing, mulch and sand are probably not considered a necessity, but I recommend that if space permits, you should make this part of your plan. Separate bins for each will considerably cut back on the amount of contamination and waste of these materials. It will also add to the overall cleanliness of the facility. Usually these bins have reinforced concrete floors and walls and graduated side walls from front to back. These areas can have a roof added, but have to be designed so large trucks can have access.

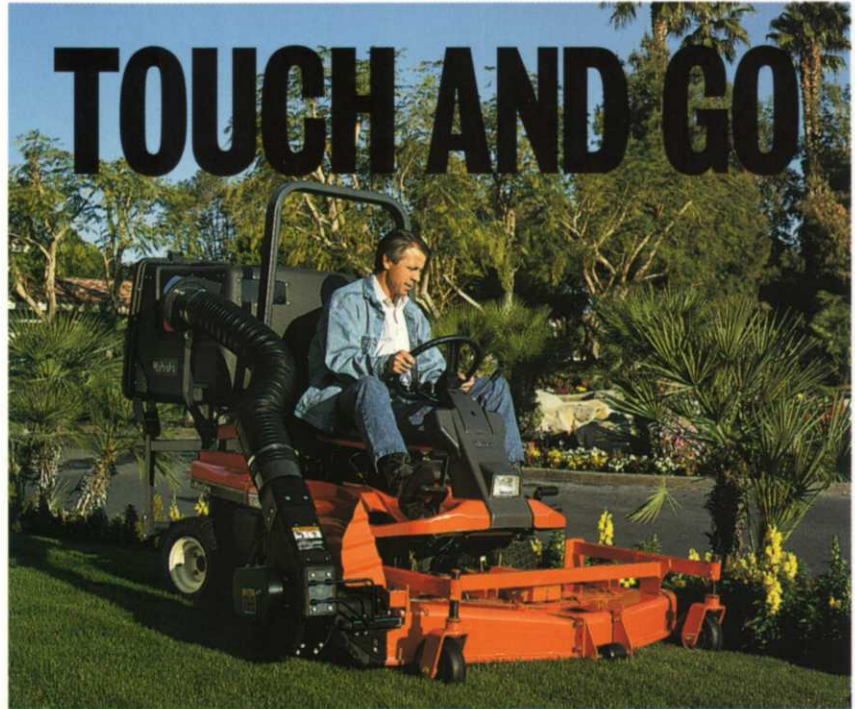
Signage and safety

This area pertains not only to new facilities, but existing ones as well. You should have a hazard communication plan set up and operational and all pertinent signage in place.

Cleanliness

Once again, this applies to all maintenance facilities, new and old. This goes hand in hand with the safety of your maintenance operation. Everything should have its place, not blocking a fire exit, safety signage, etc. You should practice what you should be preaching. There is a certain image that we need to promote. We are professionals and should look the part. I can remember being told by a superintendent that I worked for that first impressions were important. We have a lot of vendors and other professionals that visit us on a daily basis. Some never even see the golf course. I know what my first impression would be, "I sure hope this guy doesn't take care of the golf course the way he takes care of his maintenance facility."

It doesn't take that much time to keep the maintenance areas clean. We have two people who clean the lounge, offices and equipment area daily. It takes approximately 30 minutes. On Fridays, we remove all of the equipment from the shop and vacuum, blow and sweep the entire complex. It takes two hours to accomplish this. I do think that good housekeeping procedures carry over to the golf course.



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