

Putting Green Installation Manual



XGRASS

This installation manual is provided for informational purposes only to give the consumer basic understanding of the installation process for XGrass, Inc. products. The following procedures are in accordance with standard synthetic turf installations. XGrass, Inc. makes no warranty as to, and bears no liability for, the content or use of this installation manual. XGrass will not be held liable for any "self-installed" putting greens. For self-installed putting greens, owner assumes all responsibility and liability. XGrass representatives will, however, remain available for any questions you may have during your installation.

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1. Tools Needed



Shovel



Rake



Stiff Push Broom



Hammer



Carpet Scissors



Loop Pile Cutter



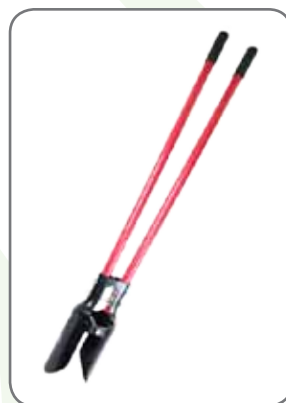
Roller



Drop Spreader



Razor Knife



Post Hole Digger



60D Spiral Nails

2. Formulas

- Yards of Rock = Tonage of rock/1.4
- Tonage Needed for Crusher Run Rock = Sq Ft/12 * depth (in)/20
- Tonage of Stone Dust Needed To Top Dress Crusher Run = Sq Ft/12/20
- # Bags Of Infill Sand = (Sq ft of green * lbs of sand per sq ft)/50
- # of Bags of Green & Black Mix = Sq Ft/50/2

3. Layout

- Determine area for putting green.
- Draw out shape of putting green with landscape paint.

Drawing out the shape of your green is a great way to begin. Use landscape paint to draw out your design on the area that you wish to use for your green. If possible, take into consideration the width of your turf rolls (typically 15 foot) so that you can design your green to maximize turf usage. Also, if you plan to include fringe, keep that into consideration as you draw out your area. If your area is 15' x 20' and you wish to cover it in full, you will probably want to have at least 12" to 18" of fringe around your green. Therefore, your green will only be approximately 13' x 18' with a foot of fringe.



4. Excavation

- **IMPORTANT: BE SURE TO LOCATE ANY WATER LINES, POWER LINES, FIBER OPTIC LINES, ETC. BEFORE BEGINNING EXCAVATION. DIGGING IN ANY WAY SHOULD BE POSTPONED UNTIL YOUR AREA IS CLEARED OF THESE POSSIBLE HAZARDS. CONTACT YOUR LOCAL COUNTY AUTHORITY AND ASK THEM TO MARK ANY UNDERGROUND POWER LINES IF NECESSARY.**
- Be sure there are no active irrigation lines under or near your putting green.
- Remove sod or any other existing material from selected area.
- Begin excavation.
- Typically putting greens are built above grade to ensure proper drainage.
- If wishing to use borders (sidewalk, natural grass, etc.) excavate within borders to a depth of 5 ½ inches

5. Base

- Repaint outline of putting green.
- Determine amount of stone by using the **Step 2. FORMULA'S**.
- Spread $\frac{3}{4}$ inch (minus) aggregate to a depth of 4 inches within painted outline.
- Smooth aggregate to a grade less than 2% unless undulations are desired.
- Compact stone.
- **IMPORTANT: If you find humps or dips in your base, continue to rake until base surface is smooth. Once smooth, compact base again.**
- Add 1" layer of screenings to $\frac{3}{4}$ minus aggregate.
- Smooth screenings across top of base.
- Compact screenings.
- Mark desired location for cups using landscape paint.

HELPFUL HINT:

Lightly mist stone dust with water to prevent stirring of dust.



6. Metal Mounting Sleeves

- Insert metal mounting sleeves.
 - Use post hole diggers to dig approximately 7 1/8 inch holes with an 8 to 10 inch diameter.
 - Bend bottom tabs outward 90 degrees so that sleeve sits flat in hole.
 - Bend middle tab on side of sleeve inward so that cup does not fall to bottom of sleeve.
 - Fill hole around metal sleeve with stone and compact.
 - Top of sleeve should be flush with top of screenings.



7. Turf

- Determine placement of rolls.
- Place rolls side by side so that they unroll in the same direction.
- Unroll turf and ensure that all fibers are running in same direction.
- Trim selvedge.
 - Flip edge of turf over a couple of feet so stitch rows are visible.
 - Use a razor knife to cut between two stitch rows, following one stitch row from end to end.
- Position rolls.
 - Position roll 1 at one end of your putting green.
 - Adjust subsequent rolls according to your first roll, leaving no more than ¼ inch gap between each roll.
- If seam is acceptable in one spot and overlapping in another, use carpet scissors to trim overlapping area.
- If trimming is needed, stand with the turf fibers running away from you and trim the edge of the roll of turf to your right, making sure not to exceed a ¼ inch gap.

HELPFUL HINT:

Remove 2 – 3 stitch rows when trimming selvedge.

HELPFUL HINT:

Seams should never touch or be wider than ¼ inch.



8. Seaming

- Check seams to ensure gap width is no more than ¼ inch.
- Mark midline of seam on ground outside of turf.
- Flip turf edges back.
- Unroll seam tape, making sure midline of tape is in line with the midline of the seam.
- Spread adhesive along seam tape with a 3/16 inch V-Notch trowel.
- Lay flipped edges back onto seam tape, making sure to control both edges so that turf fibers do not get into the adhesive.
- Firmly press the seam to adhere turf and adhesive.
- Repeat these steps for each seam.

HELPFUL HINT:

Not closing both edges at the same time may trap fibers in adhesive leaving a noticeable “bald spot.”

9. Shape Your Green

- Using landscape paint, spray an outline larger than your desired spec.
- Use a loop pile cutter to cut your shape, staying to the inside of your painted outline.
- If you are satisfied with your shape, proceed to step 10.
- If more trimming is necessary, carefully trim your putting green to your desired shape.

HELPFUL HINT:

Paint outline larger than desired. You can always cut more off but it's hard to add turf back!



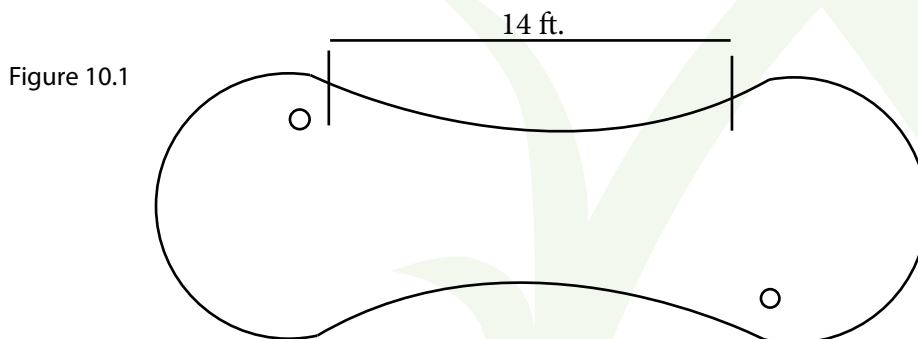
If you are not including fringe on your putting green, please skip to section 10.

10. Fringe

- **Making sure NOT to get paint on your putting surface**, spray paint an outline of your fringe around your base.
- Overlapping your putting surface 6 inches, measure to your Painted outline. This will give you the amount of fringe needed for that area.
- Temporarily secure fringe pieces with spiral nails.
- Repeat steps for both sides and ends of green.

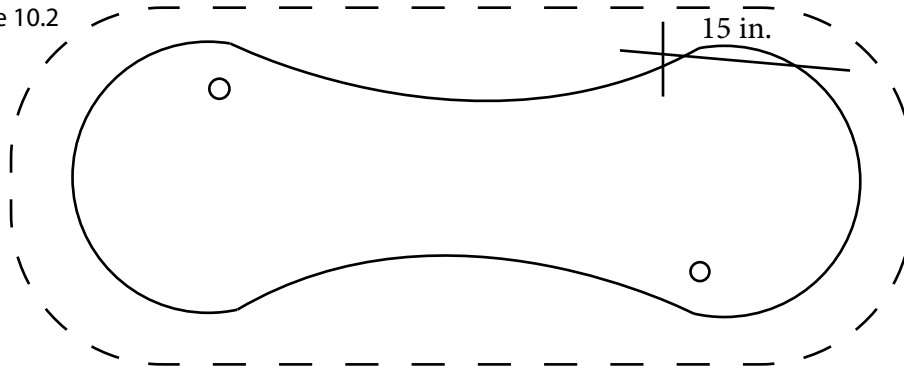
REMEMBER:

Your rolls will be 15 feet wide so make sure you measure your widest point within that 15 foot section of your green.



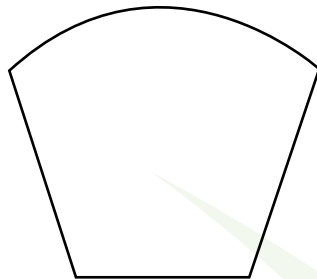
- For corners, measure your widest points to get your turf width needed.
- You may find it possible to get two corners from one 15 foot width of turf.

Figure 10.2



- Once corners are in place, you will find that they overlap the side and end pieces.
- Now you will cut your corner pieces in a similar shape to the one shown in Figure 10.3.

Figure 10.3



- Once you have your corner pieces cut, trim your side and end pieces so that the seams match the corner piece for each area.
- Once you have made sure each piece of fringe is secured with temporary nails, lap the putting surface over top of the fringe turf.
- Using a loop pile cutter, follow the shape of your green, trimming the inner perimeter of your fringe to the shape of your putting green.
- Now you are ready to glue.
 - Make certain that your fringe seams are in place with no more than a ¼ inch gap and also not touching.
 - Revert to step 8 for gluing fringe.
- Trim outer perimeter of your fringe to desired shape.
- Now you are ready to permanently secure your fringe with nails.
 - Insert a spiral nail 1 inch from the inner perimeter of the fringe.
 - Repeat nailing every 1 foot around the inner perimeter of the fringe.
 - Nail outer perimeter every 2 to 3 feet, in the same manner as the inner perimeter.

HELPFUL HINT:

DO NOT glue fringe to putting surface, only fringe to fringe!

HELPFUL HINT:

NEVER insert nails into your putting green surface.

11. Infill

- Use recommended infill for putting green turf. Speak with an XGrass representative to determine the type and amount of infill needed for your style of turf.
- Use drop spreader to spread infill in even rows across putting green.
- Spread approximately ¼ to 1/3 of your total infill volume before brooming.
- Broom turf against the grain, so that turf fibers stand up and allow the infill to work its way into the bottom of the turf.
- Spread another layer of infill over putting green (not quite as heavy this time).
- Continue to spread infill and broom until you have used your infill supply.
- With stiff bristled push brooms, brush the putting green in rows from left to right.
- With stiff bristled push brooms, brush putting green in rows perpendicular to the previous brushing.
- Ensure that approximately 1/8 of an inch of fiber is still exposed on your putting green.
- Refer to FORMULA'S page to determine amount of top dressing needed.
- Spread light coat of top dressing across putting green.
- Determine amount of infill needed for fringe.
- Spread infill over fringe turf and broom in.

HELPFUL HINT:

Fibrillation is a process of splitting the turf fibers with a power broom to achieve a smoother putting surface.



12. Rolling Your Green

- Obtain a roller.
- Roll entire surface of putting green until tops of fibers are compressed flat and desired stemp reading is achieved.
- **IF USING A VIBRATORY ROLLER, DO NOT ENABLE THE VIBRATORY SETTING AT THIS TIME!**
- DO NOT roll the fringe.

HELPFUL HINT:

Rolling your green can take anywhere from 2 hours to 2 days, depending on the stemp reading desired.



13. Cutting Your Holes

- Locate your previously installed metal mounting sleeves from Step 6
- Use a sharp knife to punch through the center of the mounting sleeve and then trace around the inner edge of the sleeve.
- Insert your putting cup until it rests on metal tabs.
- Carefully trim around the hole with carpet scissors if needed.
- Repeat for each cup.

HELPFUL HINT:

Sleeves can usually be found as dark circular areas on putting green where top dressing has settled.

HELPFUL HINT:

Sometimes a serrated steak knife will work just as well.



You have now completed the installation process for your putting green. Speak with an XGrass customer service representative about the various options for your cups, such as pin rods, pin heads, flag poles, etc. If you encounter any issues during your installation process, please feel free to call one of our XGrass installers at 877-881-8477 for advice. We thank you for choosing XGrass as your preferred turf source. We are confident that you will enjoy many years of fun on your new putting green!