



Installation Guidelines

1. PLANNING.

- a) The area for turf installation should be clearly defined and marked, if necessary.
- b) In this planning stage, it should be noted which direction the turf rolls will be laid out.
- c) **Always run the grain of the turf against any slope**, if possible.
- d) Also, note the borders of the turf and determine which edging or curbing technique will be used.

2. AREA PREPARATION.

- a) Remove all grasses, sods, mulches, etc. from the marked area.
- b) If you are landscaping around trees, shrubbery, flowers, light poles, utilities, etc., remember to mark around those areas and account for the turf edge configuration.
- c) **Remember to leave ample area uncovered around the bases of trees.**

3. SOIL COMPACTION.

- a) It may be necessary to compact the native soil / subgrade prior to base construction.
- b) In the case where the native soils are soft and/or saturated, it is advisable to install a geotextile to separate the soft soils from the crushed stone base. Mirafi 140N or equal should suffice.
- c) As a rule of thumb, if there is standing water, or if water comes to the surface under foot, a geotextile should be used. If applicable, consult the engineer or architect of record.

4. BASE CONSTRUCTION.

- a) A crushed stone base layered should be spread evenly over the prepared area.
- b) If using heavy equipment to do so, the equipment should not drive directly upon the prepared site.
- c) **The crushed stone should be a D.O.T. Class 2 aggregate, with maximum particle size of 3/4", or approved equal.** Class 2 aggregate is available in most areas.
- d) The crushed stone should be spread evenly, as smoothly as possible, and compacted to 90% proctor. A vibratory compactor will suffice on most small projects. A roller compactor may be necessary.
- e) The depth of this base course should be determined by the engineer or architect of record. As a rule of thumb, in arid climates such as Las Vegas, Phoenix or San Diego, 2 inches of base course is sufficient. In climates with more rainfall or a higher water table, such as Seattle, New Orleans, or Houston, 6 inches may be necessary.

5. LEVELING LAYER (IF NECESSARY).

1. If the base course layer is not as smooth as desired, or there are undesired undulations, it may be necessary to add a layer of fines (stone dust, screenings, manufactured sand, etc.) to fill in the low spots or create a smooth surface. **This layer should be kept to a minimum**, preferably no more than 2 inches. This layer must be compacted with a heavy roller. Do not use a vibratory compactor.

6. LAY TURF.

- a) Roll the EnvyLawn synthetic turf out on top of your constructed based, as planned. **If the site requires multiple roll widths, be sure to have the grain of the fibers on each roll of turf running in the same direction.**
- b) If seaming is required (multiple roll widths), trim the selvage (un-tufted edge) off of one roll and lay it on the base, in the desired position.
- c) Lay the next roll adjacent to the first and overlap one edge of the adjacent roll of turf on top of the trimmed edge of the first roll.
- d) With scissors or razor knife, trim the overlapped roll to match the trimmed edge of the first roll.
- e) Make all cuts as close as possible without touching.
- f) Repeat as needed for as many roll widths as the job requires.
- g) Around the borders, trim the turf to match the edges.
- h) If a secured or fastened edge is desired, do not secure the edge until most of the infill (Step 8) is installed.

7. SEAMING.

There are two seaming techniques recommended.

1. Adhesive seams.

- a) Fold the adjacent trimmed edges of two rolls of turf approximately two feet apart the entire length of the seam.
- b) Mark the centerline of the seam on the exposed base with a chalk line or spray paint.
- c) Roll out seam tape centered over the entire length of the seam line. Apply adhesive covering all of the seam tape from one end to the other. Depending on the type of adhesive used, you may need to allow time for vapors / gases to escape (flashing). Refer to the adhesive manufacturer's directions. The flashing time required may be dependent on ambient temperature and humidity.
- d) After adhesive has flashed, lay the edges of each roll of turf directly onto the adhesive/tape, making sure not to bury any grass fibers into the adhesive.
- e) Be sure to add weight (i.e. sandbags) down the length of the freshly laid seam, or use a heavy roller along the seam length. The adhesive drying / curing time will vary with different adhesives dependent upon climatic conditions.
- f) Follow the adhesive manufacturer's instructions.

2. Stapled seams.

- a) Experienced installers may use a technique that does not require adhesives. Instead, use landscape pins or staples to secure the trimmed seam.
- b) The trimming technique is the same as 7.a. Remember, with an infill turf system, these seams are hidden by the sand and/or rubber infill.
- c) **This technique is not recommended for high activity level lawns, parks, playgrounds, athletic fields, etc.**

8. INFILL INSTALLATION.

- a) In synthetic lawn applications, a drop spreader (commonly used to spread grass seed, fertilizer, lime, etc.) should be used to spread the infill in lifts ranging from to no greater than ½” depths. In between the spreading of lifts or layers, the fibers should be brushed upright with a plastic bristle industrial broom or a power-broom. This keeps all of the grass fibers erect and exposed. Fibers trapped underneath the infill may not ever be recovered.
- b) Do not use stiff steel bristle brooms that can damage the fiber.
- c) Be sure not to “dump” the infill in large quantities on the turf.
- d) If the borders or edges are to be secured, save the infill installation for these areas for last.
- e) Repeat the infill spread / fiber brooming process until the infill is evenly spread such that no more than ¾” of grass fiber tips are exposed above the level of the infill.
- f) **Caution: Too much fiber exposed (not enough infill) will cause the fibers to mat or crush with heavy foot traffic. This will lead to premature wearing of the fiber and will void the manufacturer’s warranty.**
- g) **There may be more than one type of infill used on the same site. In many cases, a combination of silica sand and granulated rubber, or silica sand and manufactured sand topdressing, may be used in layers. In either case, the silica sand is installed first, followed by the granulated rubber or topdressing.**
- h) Be sure to follow the site specifications outlining the amount or depth of each infill material.

9. SECURE EDGES (OPTIONAL).

- a) In many cases, securing the edges or borders is not necessary. The weight of the infill alone is enough to keep the turf in intimate contact with the base.
- b) If an exposed edge is a concern (because of a curious animal, high activity at the border, etc.), the edges can be secured in a number of ways:
 - **Landscape spikes.**
Simply hammer landscape spikes, timber spikes, sod staples, etc. into the edge at desired intervals. Afterwards, more edge trimming may be necessary.
 - **Nailer Board.**
When installed next to a concrete or asphalt curb, a nailer board / synthetic lumber can be installed (preferably in Step 2, Area Preparation) by nailing the board to the curb with concrete nails. The turf can then be nailed into the top of the installed nailer board with a landscape nail. Afterward, more edge trimming of the turf may be necessary.
 - **Buried Edges.**
Excavate a narrow trench around the border, deep enough to bury the exposed edge of the turf. Tuck the turf’s edge into the trench (additional trimming of excess turf may be necessary). Backfill the excavated soil against the buried turf, and compact. The edge can then be hidden with mulch, straw, rock, etc.

11. FINISH INFILL.

- a) If a secured edge was installed, it will probably be necessary to add infill around the border. Use the technique described in Step 8, Infill Installation.