

**FOREVERLAWNFUSIONSPECIFICATIONS:
LandScapes by ForeverLawn Select LX**

1.1 DESCRIPTION OF WORK

The contractor shall provide all labor, materials, equipment, and tools necessary for the complete installation of an infilled (if specified) synthetic grass surface with a stable draining base. The complete synthetic grass system shall consist of, but not necessarily be limited to, the following:

- A. Site construction with the extent of artificial turf work as shown in the drawings.
- B. Subgrade, base, and drainage construction as specified in Section 2 and Section 3 of this document.
- C. Quality synthetic grass product manufactured in the USA according to specifications in Section 2 of this document. Product shall meet or exceed all guidelines as established herein, or for characteristics not specifically stated, shall meet or exceed all guidelines published by the Synthetic Turf Council.
- D. The synthetic grass surface shall be specifically designed, manufactured, and installed for the intended use.
- E. A resilient infill system is required for warranty validation and best appearance, wear, and durability. The recommended infill is 10-14 mesh rubber granules or 12-20 or 16-20 rounded and / or coated sand.

1.2 SYSTEM PERFORMANCE

Contractor shall ensure that products for the synthetic turf system meet the following performance requirements:

- A. All components and their installation method shall be designed and manufactured for landscape use. The materials as hereinafter specified shall withstand full climatic exposure in the location of the installation, be resistant to insect infestation, rot, fungus, mold and mildew, shall also withstand ultra-violet rays and extreme heat, and allow the free flow of water vertically through the surface and into the drainage system below the surface.
- B. The seams of all system components shall provide a permanent, tight, secure, and hazard free surface.
- C. The installed synthetic grass and drainage system shall allow for drainage and water flow through the system at a rate of not less than 20 inches per hour.
- D. Based on independent laboratory tests, the synthetic grass product must be shown to meet or exceed ASTM testing standards as specified by the architect or owner.

1.3 SERVICE AND QUALITY ASSURANCE

Synthetic grass vendor shall provide ongoing service quality assurance and warranty consisting of, but not necessarily limited to, the following:

- A. The synthetic grass vendor must provide competent workmen skilled in this type of installation. The synthetic grass vendor shall provide a qualified installation foreman to coordinate and review the component parts of the synthetic grass system. Foreman shall be introduced to the owner or owner's representative prior to start of construction.
- B. The synthetic grass vendor must be experienced with no less than ten (10) completed installations. Synthetic grass vendor must be competent in the installation of this material, including attachment of seams and proper application of infill material prior to the start of turf installation.

- C. The synthetic grass vendor shall submit its manufacturer's warranty, which warrants the usability of the synthetic grass system for its intended uses with the minimum characteristics:
- I. Provide limited coverage of materials for a minimum of fifteen (15) years from the date of substantial completion.
 - II. Warrant that the materials installed meet or exceed the product specifications.
 - III. Be from a single source covering workmanship and all materials.
 - IV. Assure the availability of exact or substantially the same replacement.
 - V. Include general wear and damage caused by UV degradation. The warranty may specifically exclude vandalism and Acts of God beyond the control of the manufacturer or installer.

1.4 SUBMITTALS

Synthetic grass vendor must submit the following to owner or owner's representative with the official bid package:

- A. One (1) copy of most recent installation reference list for projects of similar scope to this project completed in the last three years.
- B. One (1) 12"x12" loose sample of proposed synthetic grass product and one (1) 12"x12" boxed sample including infill (if requested) representative of finished synthetic grass system.
- C. One (1) copy of the product warranty for proposed synthetic grass product.
- D. One (1) copy of their maintenance instructions. These instructions will include all necessary instructions for the proper care and maintenance of the newly installed synthetic turf system.
- E. One (1) copy of edge details of proposed installation and terminations of synthetic grass system.
- F. One (1) copy of a signed letter from synthetic grass vendor certifying the proposed synthetic grass product is manufactured in the USA.
- G. One (1) copy (if requested) of independent laboratory test reports on system or components.

2 PRODUCTS

2.1 SYNTHETIC GRASS SYSTEM

- A. **Synthetic grass:** ForeverLawn® Select LX

Face Yarn Type: Primary: Polyethylene monofilament Memory Fiber™; Secondary: Heat set textured nylon monofilament

Construction: Dual yarn, same row

Backing: Three-layer premium backing including BioCel™ polyurethane and geotextile non-woven fabric

Seaming: Micromechanical bonding

Color: Primary: Field / Olive Green; Secondary: Turf Green / Dark Tan

Yarn Count: Primary: 10800/6; Secondary: 5040/12

Tufting Gauge: 3/8 in.

Pile Height (tufted): 2" (finished height may be slightly lower)

Pile Weight: 70 oz. /sq. yd.

Total Product Weight: 125 oz./ sq. yd.

Finished Roll Width: 15 ft. (4.6 m)

Finished Roll Length: Up to 240 ft. (73 m)

- I. The synthetic grass shall be delivered in 15-foot-wide rolls. The rolls will be laid out and installed as specified in the site layout and equipment placement drawings.
- II. All seams shall be installed and secured with micromechanical bonding. Seams secured with adhesive or stitching alone shall not be acceptable.
- III. Infill material is required for best performance. Recommended infill amount is not to exceed 0.75 lbs. of 10-14 mesh granulated rubber per square foot or 4 lbs. of 12-20 rounded and /or coated sand per square foot.

3 EXECUTION

3.1 BASE AND DRAINAGE CONSTRUCTION

The synthetic grass vendor shall strictly adhere to the installation procedures outlined under this section and by the engineer's drawings. Any variance from these requirements must be accepted in writing by the synthetic grass vendor and submitted to the owner or owner's representative verifying that the changes do not adversely affect the performance or warranty.

- A. Excavation: Existing ground cover shall be excavated to the depth established on the excavation plan. The subgrade shall also be compacted to a minimum of a 90% compaction rate.
- B. Treated lumber or plastic perimeter board (if required): The synthetic turf perimeter fastening structure shall be installed before the drainage aggregate.
 - I. Install a treated lumber or plastic perimeter board. Perimeter board shall be flush to grade or as specified in site detail drawings. This shall be the responsibility of the synthetic turf vendor. See synthetic turf edge detail attachment.
- C. Base drainage aggregate: The base aggregate shall consist of two layers. The bottom layer will be a minimum of 3 inches of 3/4" clean, angular/fractured limestone (or equivalent), and the top layer will be a minimum of 1" of 3/8" clean, angular/fractured limestone (or equivalent). The drainage network and its existing elevations should not be disrupted through ground pressure from trucks, dozers, or by other means.
 - I. Compact the 3/4" stone layer prior to applying the 3/8" stone layer. The 3/8" layer should be compacted after being applied.
 - II. The free draining base course should be designed to meet local soil and weather conditions. It must be installed to a minimum depth of four inches with an overall compaction rate of 90%.

3.2 SYNTHETIC GRASS SYSTEM INSTALLATION

After a final inspection of the stone base by the synthetic grass vendor and the owner or owner's representative, the synthetic turf installation shall begin. The synthetic grass product shall be delivered in 15-foot-wide rolls.

- A. Synthetic grass rolls shall be joined via micromechanical bond seaming and reinforced with specialty turf adhesive where necessary.
 - I. Seams shall be flat, tight, and permanent with no separation or fraying.
 - II. Seams shall be rolled with a weighted roller to ensure adhesion.

B. Anchored to Adjacent Surface:

- I. After final layout and seaming of the synthetic grass product, the turf shall, at a minimum, be secured to the top of a 2'x2' or 2'x4' treated lumber or plastic perimeter board firmly anchored to a sidewalk, curb, or wall making up the perimeter of the synthetic turf area.
- II. The turf shall be attached to the treated lumber or plastic perimeter board by galvanized staples.

C. Freestanding Perimeter:

- I. If there is no sidewalk, curb, or wall along the perimeter of the area, the synthetic turf is to be wrapped over the outside edge of a 2'x4' perimeter board. Secure the grass to the top and side of the board. The perimeter board should be anchored to the ground using rebar. The board should be center drilled and the rebar should be placed through these holes. The rebar length shall not be shorter than 18".
- II. The turf shall be attached to the treated lumber or plastic perimeter board by galvanized staples.
- III. Soil of the surfacing material outside of the defined synthetic turf area shall be backfilled against the turf wrapped perimeter edge and have zero transition edge to the synthetic turf unless otherwise specified.

D. Spiked Edge:

- I. If there is no sidewalk, curb, or wall along the perimeter of the area, the synthetic turf may dive under the adjacent material and be spiked in place using 6" 60D galvanized, twisted shaft spikes.
- II. These spikes shall be placed no more than 1" from the edge and shall have a spacing of no more than 6" from one another.
- III. Soil of surfacing material outside of the defined synthetic turf area shall be backfilled against the spiked perimeter edge and have zero transition edge to the synthetic turf unless otherwise specified.

E. Infill Application: After all seaming and securing is completed, the infill materials shall be applied evenly and the synthetic grass groomed by means of a power broom. For larger projects, a commercial-grade, metered infill spreading device may be necessary.

3.3 CLOSEOUT

- A. The synthetic grass vendor must verify that a qualified representative has inspected the installation and that the finished synthetic surface conforms to the manufacturer's requirements.
- B. Extra materials: Owner shall be given the option to retain and store excess materials such as turf and infill ordered for project, but not installed.

3.4 CLEAN UP

- A. Synthetic grass vendor shall provide the labor, supplies, and equipment as necessary for final cleaning of surfaces and installed items.
- B. During the synthetic grass system installation, as needed or as directed by the owner or owner's representative, the contractor shall periodically clear the area. This will include removal of all extraneous materials, rubbish, and debris leaving the site in a clean, safe, well-draining, neat condition.
- C. At the conclusion of the installation, surfaces, recessed areas, enclosures, etc. shall be cleaned as necessary to leave the completed area in a clean condition which is ready for immediate occupancy and use by the owner.