**Typical Specifications for 6-inch Netlon ATS/Sand Profile**

**1) Netlon Advanced Turf System, ATS**

**1.1 Structural engineered sand base layer.**

**1.2 Netlon Advanced Turf Fibers**

### **2) Sand Material**

The sand to be blended with Netlon ATS shall meet Specifications of:

1. General Specifications of ASTM F2396-04, Standard Guide for Construction of High Performance Sand-Based Rootzones for Sportsfields.

1. The sand should be advertised as “washed sand”, where most of the silt and clay particles have been removed.
2. The pH of the sand should be in the neutral range (6.5-7.5).
3. The sand should feel “gritty” when rubbed between the fingers, crumble readily when dry, and absorb water quickly when water is poured on top of it.
4. Ideal sand should have 90 to 100 percent of its particles between 0.20 mm and 1.0 mm in diameter. Within this range, the medium sized particles, with a diameter between 0.25 mm and 0.50 mm, should comprise at least 50 to 70 percent. However, the preferred acceptable ranges are listed below:

|  CLASSIFICATION |  PARTICLE SIZE (mm) |  SIEVE # |  ACCEPTABLE RANGE (%) |
| --- | --- | --- | --- |
|  FINE GRAVEL |  2.00 AND UP |  10 |  0 – 10 |
|  VERY COURSE SAND |  1.00 – 2.00 |  18 |
|  COURSE SAND |  0.50 – 1.00 |  35 |  **82 – 100** |
|  **MEDIUM SAND** |  **0.25 – 0.50** |  **60** |
|  FINE SAND |  0.10 – 0.25 |  140 |
|  VERY FINE SAND |  0.05 – 0.10 |  270 |  0 – 8 |
|  SILT AND CLAY |  under 0.05 | - |

## **3) Execution & Installation**

### **3.1 SUBGRADE PREPARATION**

1. Excavated containment area(s) shall be prepared by others prior to subgrade preparation to receive a minimum 6-inch profile of imported washed sand blended with bales of Netlon ATS.
2. The base of the containment area(s) shall be “laser level” flat and sloped 0% in all directions with a grading tolerance of +/- 0.50 inches.
3. After the subgrade has been properly graded, it shall be compacted using a suitable vibrating roller or compactor to the recommended Standard Proctor Density as outlined in the Geotechnical Report (provided by others).

### **3.2 SUBGRADE EVALUATION AND FINISH**

* 1. After subgrade compaction, the end result should be a smooth, level and compacted surface sloped 0% in all directions with a grading tolerance of +/- 0.50 inches (as specified above). The subgrade shall be free of sharp objects and must be approved by Owner’s Representative prior to placement of Netlon ATS.
	2. If the Contractor encounters unsuitable material for constructing a subgrade per the specifications of Section 3.1, they shall develop and present a plan to Owner’s Representative for approval prior to placement of Netlon ATS.

**3.3 INSTALLATION OF NETLON ATS**

* 1. Netlon ATS bales shall be incorporated with a Blecavator or approved equal (pre-blended with a loader or skid-steer) from finish grade to 6-inches below finish grade in designated areas (as specified on plans by others).
	2. One (1) bale of Netlon ATS shall be used for every five (7) cubic yards of imported sand or for every 370 sq. ft. when specifying a 6-inch installation depth. A profile reinforced with 6-inches of Netlon ATS shall support equipment or other vehicles for mowing or maintenance no heavier than a 1-ton pick-up truck.
	3. Areas where Netlon ATS is installed must have soil amendments incorporated with a Blecavator or approved equal (pre-blended with a loader or skid-steer) at the same time in conjunction with the Netlon ATS to avoid a secondary disturbance of blended ATS elements. Take care not to damage subsurface components.
	4. Upon final completion of the installation of Netlon ATS, burn off of the exposed Netlon ATS mesh pieces (if seeding is proposed), and approval by Owner’s Representative has been provided, proceed to vegetation installation (Section 3.4).

### **3.4 INSTALLATION OF VEGETATION (SEED or SOD)**

### Before seed OR sod is applied, Owner’s Representative must inspect the field. Seed or sod shall not be applied until settling is not apparent.

1. For seed, apply with a mechanical device such as a Brillion Seed Drill with minimum 2.28-inch spacing. All applications must be in two (2) directions (90 degrees across) applying one half of the seed in each direction.
2. For seed, apply four (4) to five (5) pounds of seed per 1,000 sq. ft. (194 pounds/acre)
3. For seed, in the event there is lack of uniform turf establishment (washing or erosion from irrigation or rainfall) after a period of 30 days, the Contractor shall re-seed the affected areas at the specified rates. The field will not be accepted as complete until there is uniform germination of turf grass plants.
4. For sod, moistening sod after it is unrolled helps maintain viability. Store it in the shade during installation.
5. For sod, during the summer, the sand should be wet on the surface before laying the sod to cool the sand and reduce root burning and dieback.
6. For sod, do not install sod on gravel or soils that may have been recently treated with sterilants or herbicides.
7. For sod, lay the first row of sod in a straight line with subsequent rows placed parallel to and butting tightly against each other. Stagger strips in a brick-like pattern. Be sure that the sod is not stretched or overlapped and that the joints are butted tightly to prevent voids. Use a knife or sharp spade to trim and fit irregularly shaped areas.
8. For sod, as sod has been placed on clearly defined areas, roll sod with drum-roller to provide firm contact between roots and sand.
9. For sod, after rolling, irrigate until the sand is wet 4 inches (102 mm) below sod.
10. For sod, keep sodded areas moist to a depth of 4 inches (102 mm) until the grass takes root. This can be determined by gently tugging on the sod – resistance indicates that rooting has occurred.
11. For sod, mowing should not be attempted until the sod is firmly rooted, usually 2-3 weeks after installation.