

# **Gridtec Sportsfield Drainage System**

## **Main Carrier Drains**

1. Utilizing a compact trencher to install 6” corrugated slotted plastic pipe drains.
2. Prior to cutting the trench, along its line utilize a turf cutter to remove turf 18” wide and place to one side.
3. Trenches to be excavated to a sufficient depth to permit the laying of the pipes to the specified depths.
4. Spoil to be elevated and taken to designated site.
5. Pipes to be laid to a constant hydraulic gradient which at no point shall be less than 1%.
6. All joints and connections to be with purpose made fittings.
7. Cover pipe with birds eye pea gravel to within 6” of surface levels.
8. Backfill with the excavated soil to achieve even settled surface levels.
9. Having consolidated the backfill, replace the turf, water thoroughly and keep moist until well rooted.

## **Outfall**

1. In the positions indicated, install 6”solid corrugated pipe to discharge into the existing drainage structure.

## **Pipe Drains**

1. Utilizing the AFT Wizz Wheel in the positions indicated on the plan, install 2” corrugated slotted plastic pipe drains at a depth of 14”-16”.
2. Trenches to be excavated not wider than 3”.
3. The machine elevates the excavated spoil onto a trailer alongside for removal to a stock-pile on site no spoils shall contaminate the field surface.
4. Pipes to be laid to a constant hydraulic gradient to the main carrier drains.
5. Backfill to be .03-.06mm birds eye pea gravel to within 200mm of surface levels.
6. 80/20 USGA Topdressing conforming root zone mix from 6” to surface level.

## **80/20 USGA Topdressing Specifications**

Silt/Clay	Less than 3%
#10 Gravel – 2mm	0%
#18 V. Coarse – 1mm	Less than 5%
#35 Coarse – 0.5mm	Combined Greater
#60 Medium – 0.25mm	than 60%
#100 Fine 0.15	Less than 20%
#270 V. Fine	Less than 5%

PH – 6.0-7.0

Organic Matter – 2%

Uniform Coefficient – 2 or less

7. Backfilling to be carried out by specialized approved equipment which accurately places both the pad gravel and the sand while also firmly compacting the sand in order to discourage its downwards migration, before construction.

## **Sand Slits**

1. Sand slits to be installed utilizing purpose built equipment which will install a minimum of 6 slits simultaneously.
2. Slits to be cut 1" wide X 10" deep.
3. The slits to be backfilled with 1-2mm Sand Heat Treated which has a hydraulic conductivity of not less than 80 inches per hour.

## **1-2mm Sand Heat Treated Specifications**

Silt/Clay	Less than 2%
#10 Gravel – 2mm	Less than 10%
#18 V. Coarse – 1mm	Between 10-40%
#35 Coarse – 0.5mm	Between 20-50%
#60 Medium – 0.25mm	Between 20-60%
#100 Fine 0.15	Less than 10%
#140	Combined less
#270	than 2%

Uniform Coefficient – 2 -3

## **Sand Top Dressing**

1. Supply and spread .02mm sand at a rate of 35 tons per acre.
2. Utilizing a drag mat or wide brush to work the sand into the turf surface.