Claims

1. A modular pallet comprising:

a top surface for supporting load;

a bottom surface disposed below and parallel to the top surface;

a sidewall extending from a peripheral edge of the top surface to a peripheral edge of the bottom surface defining a main body by the top surface, the bottom surface and the sidewall, wherein the main body is divided into a plurality of support sections with each support section comprises a network of reinforcing ribs extending vertically from the top surface to the bottom surface forming a honeycomb-like structure having void spaces from the top surface to the bottom surface; and

a plurality of hollow legs integral to an inner side of the sidewall and extending downwardly from the top surface, wherein each of the hollow legs comprises a top opening aligned with the top surface and a bottom opening further away from the bottom surface such that a gap is created between the bottom surface and the bottom openings of the hollow legs which should at least permit unobstructed insertion of the forks of a forklift truck into the gap, wherein each of the hollow legs comprises a top groove along a peripheral edge of the top opening and a bottom groove along a circumference of the hollow leg adjacent to the bottom surface.

2. The modular pallet of claim 1 wherein the network of reinforcing ribs nearer to the sidewall is configured to be more compacted than the network of reinforcing ribs away from the sidewall to enhance the rigidity of the modular pallet.

3. The modular pallet of claim 1 further comprising:

a plurality of interlocking means integral to an outer side of the sidewall for coupling two or more modular pallets together to form a matrix of pallets laterally

4. A multilayer support structure for positioning under a ground to support a hardscape/

softscape on the above, the multilayer support structure comprising:

a plurality of the modular pallets of claim 3 configured to form at least two layers of pallets with each layer comprises one or more modular pallets coupled laterally by the interlocking means, wherein the honeycomb-like structure of the modular pallet allows tree roots, fluid and/or planting medium to pass through from the top surface to the bottom surface;

a plurality of support columns disposed between the at least two layers of pallets wherein each of the support columns is an elongated hollow structure with two opening ends adapted to be releasably engagable with the top groove of one hollow leg and the bottom groove of another hollow leg, wherein the support columns and the hollow legs should at least allow fluid to pass through; and

a plurality of void spaces created in between the at least two layers of pallets separated by the support columns wherein the void spaces between the at least two layers of pallets enable for tree roots growth, water drainage, and/or storage of utilities within the multilayer support structure.

5. The modular pallet of claim 1 or 2 wherein the reinforcing ribs are intersecting with each other at any suitable angles between 0° and 360°.

6. The modular pallet of claim 1 or 2 wherein the reinforcing ribs are intersecting with each other and arranged to be in perpendicular, parallel and diagonal with respect to the sidewall.

7. The modular pallet of claim 1 wherein the plurality of support sections comprise four equally sized support sections.

8. The modular pallet of claim 1 wherein the main body is formed in a square shape with four corners.

9. The modular pallet of claim 8 wherein the plurality of hollow legs comprise four hollow

legs positioned at the four corners of the main body.

10. The modular pallet of claim 1 wherein each of the hollow legs is formed in a cylindrical shape.

11. The multilayer support structure of claim 4 wherein each of the support columns is formed in a cylindrical shape.