CLAYTECH

CONSTRUCTION GUIDELINE

ClayTech Tennis Court Surface
Existing Hard Court Overlay

1.0 Definition

ClayTech is a tennis court surface consisting of a natural crushed stone, brick, or combination of stone and brick infilled into a needle punched polypropylene membrane. The membrane is attached to an existing hard, asphalt or concrete, tennis court with an approved adhesive. Playing lines are created from approved epoxy filler and colored with white acrylic line paint.

2.0 Objectives

A. To overlay a hard tennis court in order to offer a more comfortable playing surface by allowing players to slide into shots, thus reducing the stresses placed on the joints of their lower extremities.

B. To provide a uniform playing surface.

C. To allow for clay court tennis in all climates and seasons.

D. To slip-sheet an aged hard court with cracking or other aesthetic issues.

3.0 Existing Surface Inspection

The existing surface should be inspected for cracking and low-spots. The areas should be addressed and corrected prior to the application of the adhesive and membrane. The correction of cracks and/or low-spots should be done as outlined in the American Sports Builders Association (ASBA) specifications entitled, “Maintenance and Repair of Asphalt Tennis Courts”, Sections II.Q.3 and II.Q.4 and position papers for the repair and renovation of hard tennis courts.

Any algae, mold, or fungus growth on the existing hard court should also be addressed and corrected prior to the application of adhesive and membrane.

4.0 Slope and Drainage Requirements

ClayTech courts placed over existing asphalt and concrete should have a slope of not less than 0.5% and not more than 1.0% slope. ClayTech courts should not be placed as to drain directly onto adjacent hard courts. Although not recommended, ClayTech courts may drain directly onto adjacent Har-Tru courts. If the slope of a battery is across multiple courts, it may be advisable to install a channel drain in between each court or sets of courts to intercept excessive storm water.

5.0 Adhesive Application

When attaching the ClayTech Membrane to the surface course layer, Isotec Isobond DM01178 polyurethane adhesive or an approved equivalent should be used and will be supplied by Lee tennis, 2975 Ivy Road, Charlottesville, VA 22903. The surface course should be free of any loose impediments, dirt, and oils. The asphalt or concrete should also be thoroughly cured and void of any significant moisture. The adhesive used is a single-part polyurethane-based industrial adhesive and may be sprayed or squeegeed evenly on the surface course at a rate of 90 ft^2/gallon if spraying or 104 ft^2/gallon if applying by squeegee. This type of glue is extremely sensitive to moisture and should not be applied if rain or heavy fog is imminent. Weather forecast should be consulted prior to the application of the adhesive.

In rare cases, where porous asphalt or concrete are being used as the surface course, the adhesive must be applied in a striped fashion to allow excess moisture an avenue to drain through the base. These stripes should be no further apart than 1 ¼" and should be placed perpendicular to the direction of the courts slope.

Only apply adhesive to areas that can be properly covered with ClayTech membrane and rolled within 30 minutes after the application. The expansive nature of the polyurethane adhesive may have a tendency to lift the membrane in areas. To avoid lifting and unevenness in the finished surface's plane, roll the membrane with a 100 -200 lb roller repeatedly until adhesive has set. This may take multiple rolling over several hours. The membrane must be properly placed so to avoid raised seams or wrinkles, and must not span depressions in the surface course.

<u>Note:</u> Refer to Lee Tennis' ClayTech Installation Manual for more details and photographs of adhesive application.

6.0 ClayTech Membrane

The Membrane is supplied in approximately 6'-8" wide by 60'-4" long rolls. These rolls will need to be stored in a vertical fashion until they are placed on the court. Half width rolls (3'-4" wide) may be provided by the manufacturer for some applications.

Rolls should be placed on the court parallel to the direction of the slope of the asphalt or concrete surface course and are seamed by double cutting with approved cutting tools.

Once the membrane has been glued to the surface course below, it should be rolled with a 100 – 200 lb hand roller. Multiple rollings will be necessary for the first several hours as the polyurethane adhesive expands during its curing time.

The membrane must be placed as to not have raised or separated seams or wrinkles and must not span low spots of "birdbaths" in the surface course. If such low spots exist in the surface coarse, they should be treated and patched as they would on a typical new hard court installation (see the ASBA position papers on asphalt acceptance and birdbaths for guidelines).

<u>Note:</u> Refer to Lee Tennis' ClayTech Installation Manual for more details and photographs of membrane installation.

7.0 Playing Lines

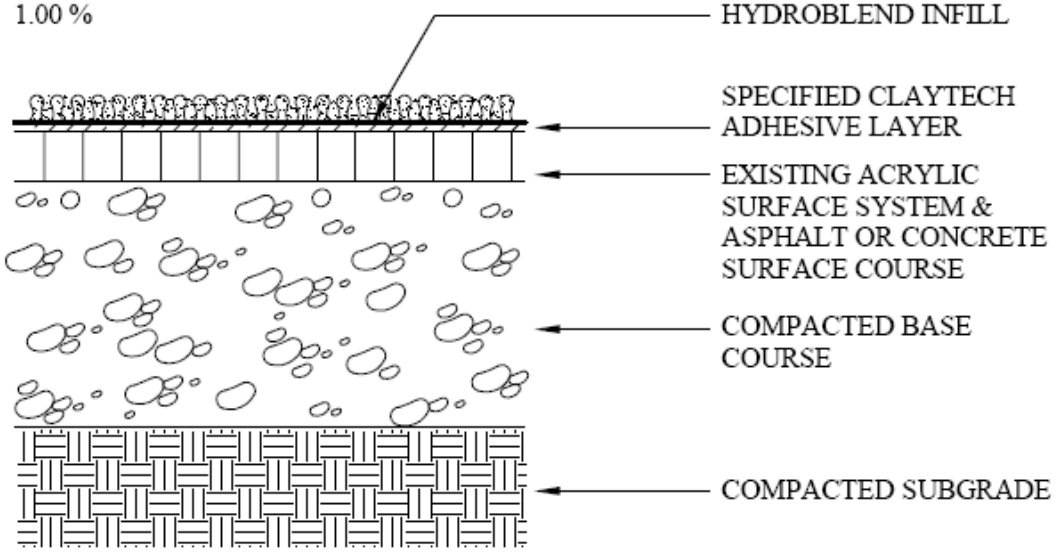
Playing lines are constructed from an approved epoxy filler topped with a white acrylic line paint. The finished elevation of the epoxy filler should be 0.04" (1 mm) above the membrane. To create the line, epoxy filler is troweled into taped out line areas using a 2½" putty knife. For best results, Stucco-type tape should be used to tape the line areas. Once the epoxy filler has hardened, 2 coats of white acrylic line paint should be applied.

<u>Note:</u> Refer to Lee Tennis' ClayTech Installation Manual for more details and photographs of playing line installation.

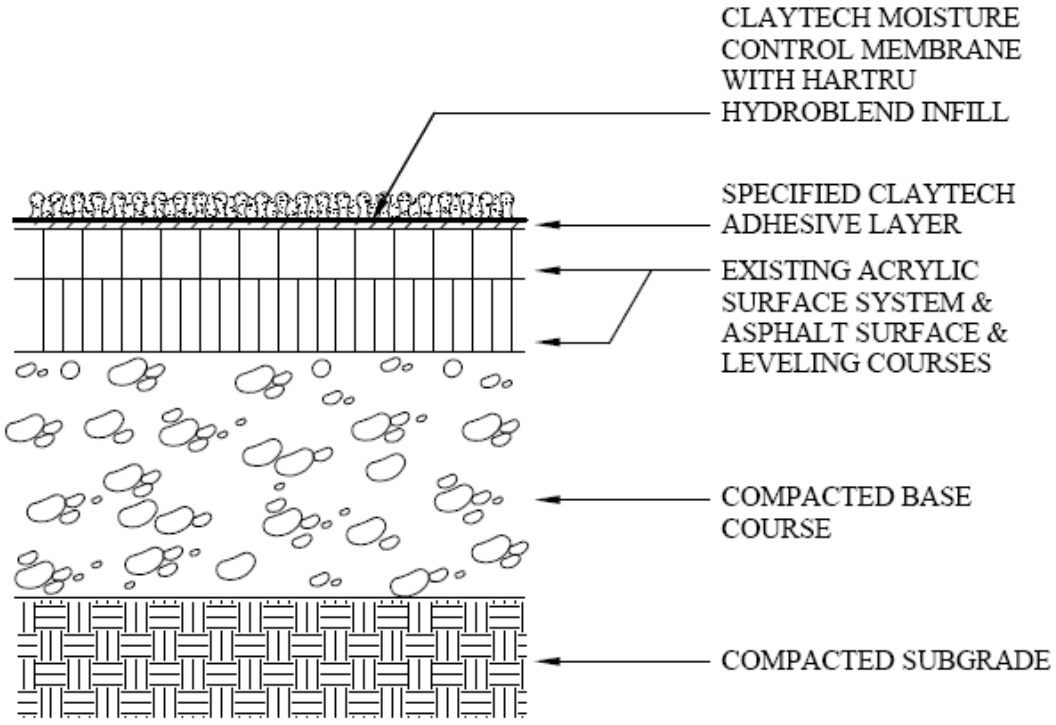
8.0 Granular Aggregate Infill

After all the ClayTech membrane is properly placed, seamed, and rolled and the playing lines are complete, an approved Har-Tru HydroBlend (no binder) tennis court surfacing should be worked into the void spaces of the membrane. Typically, 3 – 4 tons of surfacing will be needed, and should be placed to an elevation 0.04" (1 mm) above the top of the membrane's fibers. Drop spreaders are preferred for broadcasting the Har-Tru HydroBlend surface evenly over the membrane. After each ton of Har-Tru HydroBlend is added, thoroughly brush the membrane to work the Har-Tru infill into the ClayTech membrane's fibers. Har-Tru Coarse Blend material may also be used to achieve the desired surface consistency and finish.

NOTE:
FOR COURT SLOPING:
MINIMUM: 0.50 %
MAXIMUM: 1.00 %



FOR EXISTING COURT IN NON FREEZE/THAW CLIMATE



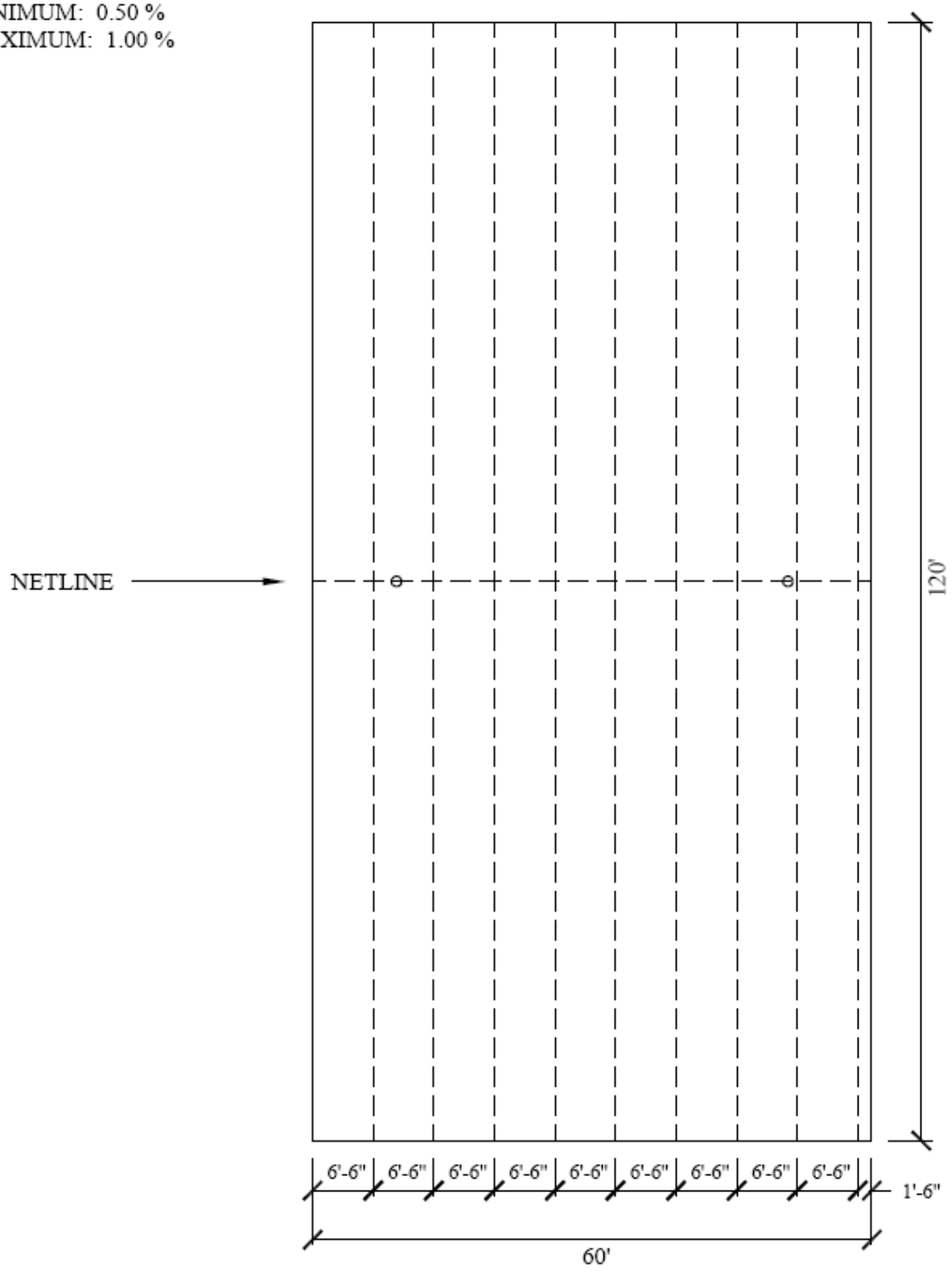
FOR EXISTING ASPHALT COURT IN FREEZE/THAW CLIMATE

CLAYTECH-2.AVL.06

ClayTech Court Sections - Existing Court Overlay

NOT TO SCALE

NOTE:
FOR COURT SLOPING:
MINIMUM: 0.50 %
MAXIMUM: 1.00 %



CLAYTECH-3.AVL.06

Typical ClayTech Membrane Layout

NOT TO SCALE