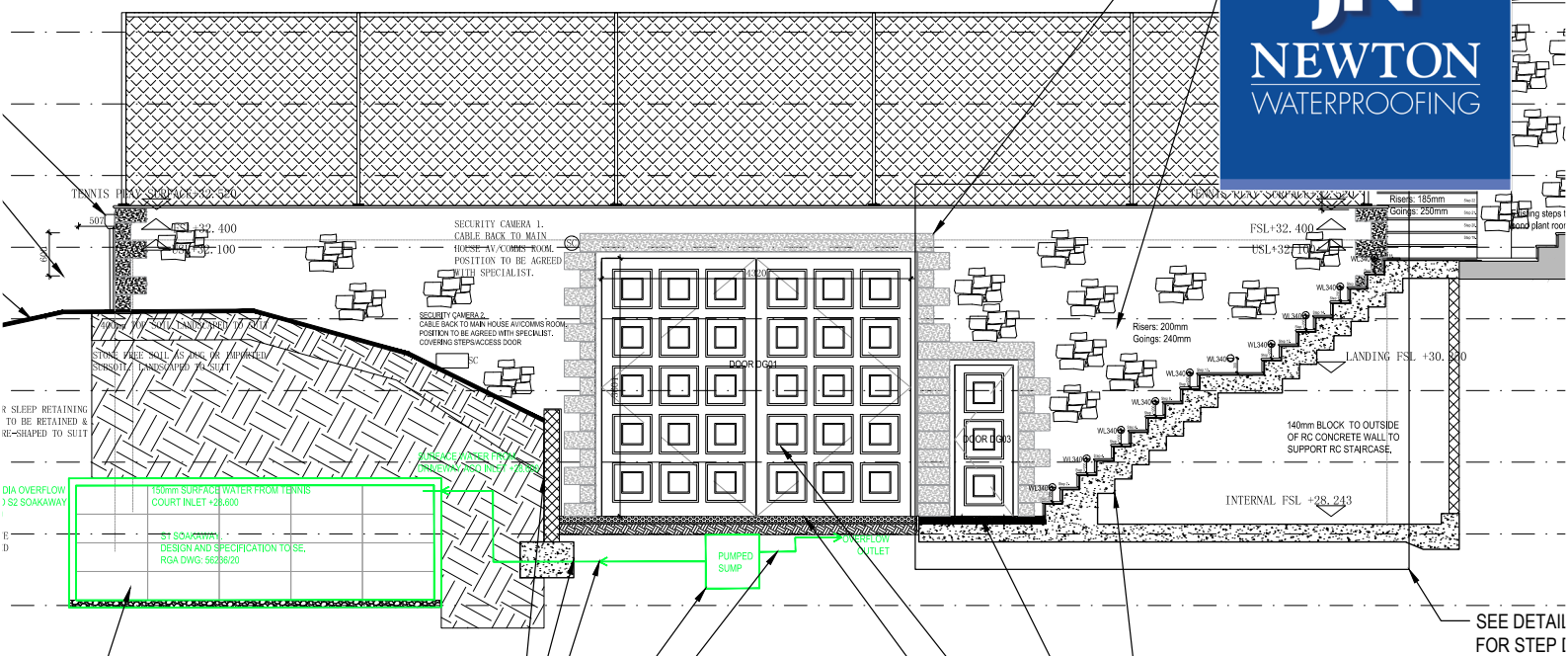


TENNIS COURT SURFACE NOTES:
 ARTIFICIAL GRASS COURT
 15mm ARTIFICIAL GRASS COURT FINISH
 15mm SPORTS PAD CUSHION UNDERLAY SYSTEM
 85mm PERMAVOID DRAINAGE LAYER OF GEOTEXTILE MEMBRANE
 APPLIED WATERPROOFING MEMBRANE SYSTEM TO EXTERIOR SURFACE ON DEBARBERED CONCRETE SLAB TO STRUCTURAL ENGINEER'S DESIGN/DETAIL TO BE APPROVED PRIOR TO COMMENCING ON SITE



New-Build Garage & Tennis Court, Jersey

Concrete Injection Hose Waterproofing

The Project

For this project on the Channel Island of Jersey, [Castletree Architectural Services](#) built a new underground private garage with tennis court above. Due to the potential high value contents and the nature of the positioning, the client required combined waterproofing to achieve a completely dry space.

The Solution

With such a specialist installation required, Castletree called on the expertise of the Newton technical team, who worked alongside Newton Specialist Contractor [Rateavon Jersey](#) in order to provide the waterproofing installation and guarantee.

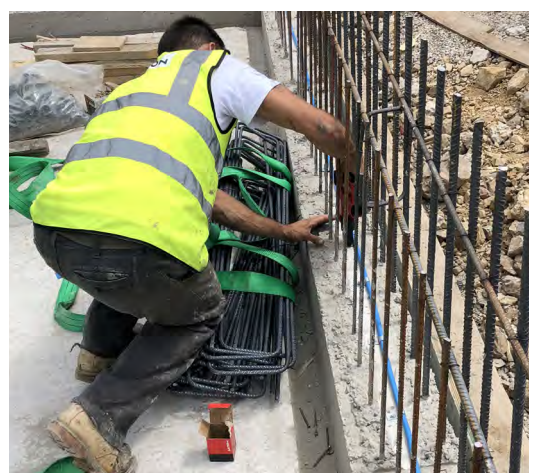
With the Type A [Newton HydroBond System](#) and concrete slab in place, Rateavon began by installing 80 linear metres of [Newton 302 Injection Hose](#) in 10-metre lengths along the top of the kicker joint. The injection hose was fixed at 150 mm centres using clamps that were shot-fired into the concrete to ensure minimal movement during the rest of the concrete pour.

To complete the Type B system, injection ports were installed at the end of every 10-metre length of hose at a height of 1 metre above the slab.

Finally, once the remaining concrete had been poured and had cured for 28 days, and prior to the internal [Newton CDM System](#) being installed, Rateavon used the new ports in the concrete walls to inject the whole system with a one-shot treatment of [Newton 322-SP](#), which cures with or without water to provide a flexible, resilient seal within the kicker joint.

The Result

By combining all three Types of waterproofing, as defined by British Standard 8102:2009, Newton provided the client with the ultimate protection from water ingress. By also ensuring a high-quality concrete pour and with expert installation of the injection hose, the new concrete structure will provide a guaranteed Type B form of waterproofing.



Installing 302 Injection Hose to the kicker joint



Injection Hose is installed in 10-metre lengths

"Designing a new garage for our clients' large collection of cars was easy; designing it to sit under a tennis court and rebated into the side of a steep cotie was far more challenging.

Ensuring that no water penetrated through the structure was our primary concern, especially since nearly 85% of the structure was below ground and potentially in the water course.

It was therefore clear to us that we needed a robust, insurance backed design that could handle anything that was thrown at it. We contacted our local waterproofing specialist and they prepared a specification and design completely backed by Newton Waterproofing that could guarantee our clients' peace of mind."

Paul Pearson, Architectural Designer
Castletree Architectural Services



Injection ports were installed every 10-metres

The Products

HYDROBOND SYSTEM

The Newton HydroBond System provides a complete and continuous external waterproof envelope to below-ground and earth-retaining structures, providing a self-healing form of 'Type A' waterproofing protection in line with BS 8102:2009.

302 INJECTION HOSE

A high performance injectable waterbar for sealing construction joints within retained concrete structures. The system offers many benefits over conventional waterbars, especially its ability to grout poorly compacted concrete and by offering a maintainable solution that allows for resealing of the construction joint, post-construction.

322-SP INJECTION RESIN

A low-viscosity polyurethane resin that creates a flexible, resilient seal in wet or dry structural cracks, or can seal within 302 InjectionHose to provide Type B waterproofing. 322-SP does not require water to create a seal, and is also ideal for sealing fine cracks in the walls and floors of concrete structures. Its flexibility will also cater to potential movement.

CDM SYSTEM

A combination of Newton's decades of waterproofing experience and the highest quality BBA certified membranes from [Newton System 500](#). Coupled with the bespoke pump configurations, backup systems and ancillary options, the Newton CDM System is the most reliable and maintainable waterproofing solution for any below ground space.



Newton 322-SP is quickly and easily mixed on-site

Newton Specialist Basement Contractors

Newton recommends that our systems are installed by one of our nationwide network of Newton Specialist Basement Contractors (NSBCs). Trained by Newton, NSBCs offer a full guarantee on the design and installation, and can act as Waterproofing Design Specialists.



The one-shot resin fills any voids and cracks within the construction joint

