Building Contractors Ltd

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CASE STUDY 00016 - Discovery Retail Park, Grantham

Commercial Roof and Gutter Refurbishment

CASE STUDY

SAND01/0008

- Date of Project: November 2001 - January 2022
- Project Location: Discovery Retail Park, Grantham
 - **Project Type:** Commercial Roof, Cladding and Glazing Frame Refurbishment.
- Contract Type: Sub-Contractor
- Contract Value: £52,000.00





Discovery Park, Grantham

Commercial Roof & Gutter Refurbishment

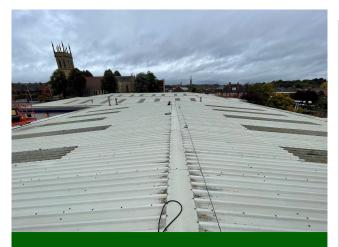
Tritec Building Contractors were awarded with the following works:

- 126m2 of Rooflight Replacement Removal of perished outer GRP rooflight skins and replaced with new Zenon Pro non-fragile rated sheets.
- 809m2 of Roof Coatings Applied The external roof make-up was prepared and then coated with Liquasil Metalseal 20.
- 120m of Liquid Gutter Treatments The metal box gutters cleared, cleaned and coated with Liquasil One gutter system.
- Cladding Replacement Cladding sheets to the roof and elevational cladding replaced with new following the removal of services leaving penetrations.
- Glazing Frame Decorations The frames to the main entrance where prepared and sprayed, including filling of fixing holes to the frames prior to decoration.

Tritec Building Contractors are experienced refurbishment contractors that provide efficient and effective services to extend the lifespan of commercial building fabrics.

Commercial Metal Roof Treatment - Liquasil MetalSeal 20

The existing metal pitched roof was aging with signs of corrosion throughout, Liquasil Metalseal 20 was specified to extend the life cycle of the roof sheets and associated flashings and trims for a minimum guaranteed period of 20 years.



Before

The existing factory applied coating to the roof area was soiled and starting to breakdown through UV exposure and general weathering.

Cut edge corrosion was present throughout the roof and causing the roof sheet coatings to peel back exposing the steel substrate.

Many of the roof fixing caps were missing and loose fixings throughout.



In Progress

Preparation works included jet washing the complete roof area at high pressure to removal all dirt films and loose coatings.

All loose fixings were tightened with missing ones replaced; all fixing caps removed and then fixings encapsulated with primer in preparation for the roof coating system.

Prior to applying the roof coatings all cut edge corrosion to the roof sheets and flashing joints had to be prepared and primed.

All redundant flues removed, and penetrated roof sheets replaced or over sheeted.



Completed

Once all the relevant preparation works had been completed to the roof area which included all roof sheets, flashings and capping sections. The Liquasil MetalSeal 20 roof coating system was applied via airless spray as per manufacturers specification.

On completion of the works a Liquasil representative attended site to survey the completed works and signed off with the manufacturers 20-year system guarantee.

Metal Capping Treatment - Liquasil MetalSeal 20

These types of capping's don't normally fall within the roof treatments, however owing to the level of corrosion we was able to carry out a liquid treatment and save the end client a healthy cost saving over their replacement.



Before

The existing perimeter capping's were covered in a thick film of dirt that had accumulated over many years; the metal sections had advanced levels of cut edge corrosion present to both the joints of the capping's and the overlapping edge of the fascia's at roof level.

The end client had original requested to have these replaced not being conscious at the time that the elevational fascia's also were affected by the corrosion, which would have been a large cost increase to replace.

We suggested that we could provide a liquid treatment and bring then inline with the roof coating treatment and provide a 20-year guarantee, saving time and money.



In Progress

The capping sections where all thoroughly cleaned at high pressure to remove all dirt films, loose coatings and surface corrosion.

All butting joints to the capping were sealed with Liquasil Non-Sag Sealer, areas treated where then primed and fixings encapsulated.



Completed

Once all preparation works had been completed as per the manufacturer's instructions, the capping's were then coated in Liquasil MetalSeal 20 and brought in line with the roof coating guarantee for 20 years.

As you can see by the photo, not only do the capping's have further waterproofing and corrosion protection, but they also look brand new for a fraction of the price required for removal.

Commercial Gutter Refurbishment - Liquasil Gutterseal System

The gutters systems servicing the main roof were nearing the serviceable life, lack of maintenance throughout the yards had allowed accelerated corrosion and damming within the gutters, Liquasil Gutterseal system was applied to extend the life cycle for at least 15 years and at a much more economical cost than replacing.



Before

The perimeter gutters were in a typical state with a build up of silt and standing water caused by detritus building up around the bottom of the leaf guards over the gutter outlets causing damming.

The metal box gutters had varying amounts of red oxide build up throughout.



In Progress

In preparation for the gutter treatment the box gutters were cleared of all detritus, surface corrosion removed, swept through and then rinsed to leave thoroughly clean.

Once the areas had fully dried SWT primer was applied to the complete surface area of the gutter and then joints sealed with Liquasil Non-Sag Sealer.



Completed

Once the primer and sealer had fully cured a thick coat of Liquasil One was applied via roller to the entire length of the gutters to finish the treatment.

Then once installed the gutters will no longer leak and because the liner is bonded directly to the substrate it will not lift, crease, crack, peel or rust.

The gutter system was applied with a 15-year manufacturers guarantee.

GRP Rooflight Sheet Replacement - Zenon Evolution LC1

The existing outer GRP rooflights had been effected by UV degradation and general wear and tear, as a result they transmitted a limited mount of natural day light into the store below, new Zenon Evolution LC1 GRP sheets where fitted to replace the existing perishing sheets.



Before

The existing outer skin on the GRP roof light sheets had eroded and started to perish due to UV exposure and general weathering, the condition of the sheets had seriously reduced the amount of natural day light transmission into the building below.

There was historical water ingress issues around the sky lights with various patch repairs evident throughout.



In Progress

The out rooflights were removed, lowered to ground level and disposed off within the site skip.

All previously applied butyl sealant around the roof light voids were scrapped away and the top of the liner panels cleaned from above.



Completed

New non-fragile Zenon Evolution LC1 GRP rooflight sheets in a matching roof profile were then fitted, secured with new butyl compression tape and moulded head fixings in poppy read to high light their presence on the roof.

The newly installation was left watertight stopping any issues with water ingress and the day light transmission was significantly increased and improved.

Glazing Frame Refurbishment - Tikkurila Teamdur 20 Coating System

The existing outer GRP rooflights had been effected by UV degradation and general wear and tear, as a result they transmitted a limited mount of natural day light into the store below, new Zenon Evolution LC1 GRP sheets where fitted to replace the existing perishing sheets.



Before

The main entrance screens to the unit had been previously painted to a poor standard and had vinyl applied to the glass above the entrance, there was also large redundant fixing holes following the removal of signage.



In Progress

The frames were sanded back to a firm edge ensuring that all loose coatings and obvious sags and drips created from previous coatings applied were removed and taken back.

The vinyl was removed from the glazing above which left stains and surface damage to the glass.

The redundant fixings hole were then filled using a two-part body filler and then sanded back flush.

The frames required hand cleaning and degreasing to from all contaminates and silica.

All immediate areas around the entrance including glazing was then masked up in readiness for the application of the coating system.



Completed

Once cleaned and prepared a hardy two-part polyurethane containing zinc phosphate was then applied via HVLP spray system to the frames and glass above to leave a new and unform finish.

We prefer to use the Tikkurila Temadur 20 system as it is versatile and tough which is a requirement when painting low level areas which will have constant wear through out the years.

Cladding & Roofing Sheet Replacements

During the works we changed various sections of cladding and roofing sheets owing to impact damage and large penetrations following the removal of services.



Owing to the removal of services and flues the property was left with cladding and roofing sheets with large penetrations, also there was a large section of cladding and drip sills that had been impact damaged to the rear elevation.



We carefully removed the damaged sheets and sills and replaced with matching profiles, fixed and sealed to leave watertight. This also included replacing the internal liner panels where penetrations where left following the removal of services.







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