

Proposed Car Parking, Drainage Improvements & Enhancement of The Pavilion Facilities at Rowney Green

Background

1. The Parish Council owns and is responsible for two playing fields, a Pavilion Building, two tennis courts and a children's playground in Rowney Green behind the Village Hall.
2. The current Covid-19 restriction has resulted in many new visitors using the playing fields for their daily exercise. Most walk to the facilities, but a few drive to the location too as it offers a good base for extended walks and a large open area to exercise their dogs.
3. No off street parking provision exists and visitors are reliant on the tolerance afforded to them by the Trustees of the Village Hall. The lack of adequate parking provision has led to regular use of the football pitches ceasing.
4. The existing playing fields can accommodate an adult size football pitch (100 x 40m) and a smaller one, behind The Pavilion building, able to accommodate a junior size football pitch (60 x 40m).
5. Recent prolonged periods of rainfall have resulted in exposing a drainage problem to part of the larger playing field. Repairs and improvements to parts of the playing surface over many years has resulted in some pockets where imported topsoil has not had time to bed down and solidify with the original ground to provide one unified and solid surface. This has led to areas retaining rainwater under the surface and causing it to become 'boggy' and unfit for the purpose of playing any organised sport on it during the winter months.
6. Extensive research has identified the need to both consolidate and aerate the affected area. A specific specialist treatment does exist and this is carried out by Terrain Aeration Services Limited, based in Suffolk.
7. The Pavilion building provides changing rooms, toilet facilities, storerooms, an open multifunctional main room and a kitchen. However, the building is not insulated. The changing rooms do not have any shower facilities.

8. The fabric of the building consists of plastic coated vertical metal corrugated sheeting with cement fibre corrugated roofing panels with 10% coverage by translucent PVC roofing sheets. The main supporting structure is a steel portal frame.
9. Internal walls are painted fair faced blockwork to a height of 2.6m above FFL. Plasterboard ceilings exist in the toilet and kitchen areas as well as for a central storeroom. No insulation has been included above the ceilings.
10. The area over the kitchen and toilets has been boarded to offer mezzanine storage, but access to it is via a ladder resulting in a H&S hazard.
11. The building has its own mains water and electric connections. No gas supply exists.
12. Part of the building is dedicated to storage of ground maintenance machinery and fencing materials etc. Access to the area is through opening heavy steel sliding doors.
13. The existing floor is concrete, partly painted with a proprietary epoxy resin blue coating. The floor is not insulated.
14. The building has no windows. The only source of ventilation is a kitchen extractor fan.
15. Hot water is provided to wash hand basins and the kitchen sink via instant electric water heaters.
16. Access into the building is via two single timber pedestrian doors. One at the front of the building and the other on the side.
17. The building has its own CCTV camera and alarm system. The CCTV system is not monitored but images are recorded.
18. Foul water drainage exists connected to the mains sewer in Newbourne Hill via third party land. Roof water is collected via gutters and discharged directly from rainwater pipes onto the ground.
19. This document sets out Alvechurch Parish Council's plans and intentions to address the issues described and improve the facilities for greater use and enjoyment of the community; as well as increasing the viability of generating valuable revenue to help towards the general maintenance of the playing fields and Pavilion building.

Aerial Views of the Playing Fields and The Pavilion



Off Street Parking

20. A simple solution for providing car parking is proposed by dedicating an area of the Parish Council's land for the formation of a purpose made off-street parking area. The identified area isn't used for any specific purpose and has direct access to it off Newbourne Hill via an existing gate and crossover. Existing and proposed layout plans are included as part of this document.
21. A total of 25 new parking spaces are to be created using purpose made rubber matting from Grassmats Limited, Unit 7 & 8 Greenfield Industrial Estate, Back Lane, Congleton CW12 4TU. Tel. 0330 031 8322. Use/see:-

sales@grassmats.co.uk or www.grassmats.co.uk
22. Individual parking spaces are to be created using 'Grass Protection Parking Space Mats' – 2.5 x 5.0m or using 2.5 x 15m. rolls pegged and laid as per manufacturer's instructions.
23. Preparation of ground to consist of clearing and levelling parking bay areas. No excavation greater than 150mm is to be carried out to protect the root system of the nearby mature trees. The ground is considered fairly level and should not require any re-modelling other than the area where 8no. spaces are to be created. This area requires a small embankment removed and the material evenly distributed between the existing tree area and boundary to Newbourne Hill.
24. Include for evenly spreading 'shade tolerant' grass seed over matting area and brushing to ensure it falls between the matting voids to the exposed earth below.
25. The new access roadway from the gate to the new parking spaces is to be formed either side of the existing pathway using Heavy Duty Protection Mesh, 2.5 x 15m rolls from Grassmats Limited. All to be laid and pegged down as manufacturer's instructions.
26. Spread grass seed over roadway areas to encourage grass to grow through new matting. Where grass is unlikely to grow, allow for spreading imported pea gravel over these areas to a depth of 15mm. Exact extent to be agreed on site.
27. Individual parking bays to be 2.5 x 5m with 7m clearance between opposing bays, where appropriate.

28. The roadway matting is to extend to 7m. from the rear of the single row of parking bays.
29. See photographs showing areas where new parking bays are to be created.
30. New parking bays and extent of new rubber matting is to be agreed on site, but this will be based on the new layout plan included in this document.
31. Include for cutting back and raising canopy of trees overhanging new parking bays to provide minimum of 5m. clearance above ground level. Identify, report, record and remove any decaying or split branches from any trees overhanging new parking bays.
32. The exact requirements for the creation of the new parking spaces will be agreed and set out at the commencement of the works. These will be tailored to suit the existing topography of the land and take into account the condition, size and location of the existing trees.

Photograph of the Entrance Area to the New Parking Area

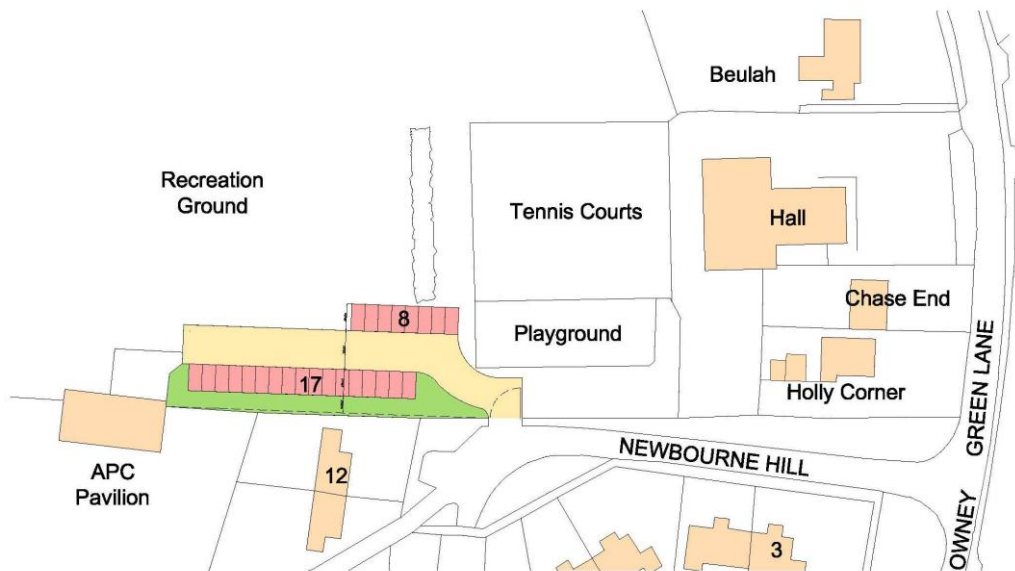


Existing Plan of the Roney Green Facilities



ROWNEY GREEN RECREATION GROUND IMPROVEMENTS
EXISTING
SCHEME 2
Aug '19

Proposed Car Parking Layout



ROWNEY GREEN RECREATION GROUND
PROPOSED PARKING: 25 SPACES
SCHEME 4
JUNE 2020

Photos of the area for the new Car Parking





Aerial Photos of the Car Parking Area



Drainage Improvements to the Main Playing Field

1. As previously stated, there are areas of the main playing field that become 'boggy' during prolonged periods of rainfall, mainly during the winter season. This results in the playing field becoming unplayable, leading to cancelled or postponed football matches.
2. The solution is a combined treatment of consolidating the ground and aeration of part of the main playing field where the problem area exists.
3. A specialised treatment has been identified which deals with the two problems. The area to be treated is approximately 2,125sq.m.
4. The specialist treatment is as follows:-

The process requires the use of the Airforce Terralift® machine and involves using a JCB breaker gun to hammer a hollow probe which is 37mm in diameter (1 ½" dia.) into the soil to one-metre depth. Compressed air (up to a maximum of 20Bar - 280psi) is then blasted through and injecting dried milled seaweed on the tail end of the air blast. The seaweed expands and contracts with the moisture content in the soil, helping to keep the fractures and fissures open. The surface water is able to drain down quicker to one metre depth before naturally percolating away. The probe is withdrawn and the process repeated using two-metre centre spacing on a staggered grid pattern. The probe holes are backfilled with Lytag to provide a long term aeration/ventilation shaft. Approximately 1lt or 1kg of Lytag aggregate is required to backfill each aeration shaft. The aggregate is inert but porous, which allows air and water to pass through and is also 'mower friendly'. The use of pea shingle must not be used as this would damage mower blades. The Lytag simply pulverises coming in contact with mower blades as it is simply expanded clay particles. The Airforce Terralift aeration machine is the only one that can reach this depth and be as effective.

5. The treatment can only take place once the ground is soft. The drier summer months results in the ground being too hard for the aeration probe to be driven into the ground to a depth of approximately 1m. As a result, the work is best carried out anytime as from late October to April, with avoiding periods of ground frost.
6. A provisional date for the treatment work to be carried out has been set for November. There would not be any disruption to any scheduled football matches.

Aerial photograph highlighting the Area to be Treated



Photograph of the Main Playing Field



Pitch Size Options



Aerial View of the Playing Fields



Improvements to The Pavilion

1. The use of The Pavilion is restricted to those warmer months of the year due to the lack of insulation and inadequate heating. The building is too cold for any sustained use throughout the winter. The viability of it to be considered, used or marketed as a source of regular valuable income to the Parish Council is limited due to the current condition of the building.
2. Other issues and limitations have been identified and described earlier in this document.
3. Improvements are proposed to address all the main issues. These are illustrated and described in greater detail on the architectural drawings included within this document.
4. A brief summary of the main enhancements are as follows:-
 - a. Compartmentation of the Main Room and Changing Rooms.
 - b. Installation of an insulated suspended ceiling.
 - c. Replacement of the electric panel heaters by 3kW fan heaters.
 - d. Provision of new LED lighting activated by PIR sensors.
 - e. New windows serving the main room and kitchen.
 - f. Dedicated shower area for each changing room.
 - g. New LPG fired hot water boilers with 1,200 ltr capacity.
 - h. New staircase providing access to the mezzanine storage.
 - i. Security shutters to the new windows.
 - j. Improved natural light and ventilation from the inclusion of windows.
 - k. Solar roof panels to help provide hot water and generate power.
5. These improvements, combined with dedicated off street parking, will allow The Pavilion to be used for various activities or meetings throughout the year by varying organisations and individuals generating valuable income for APC.
6. The hot water provision can't be provided economically using instantaneous electric heaters. Mainly due to the requirement of 1,200 litres of hot water over a 30 minutes period, ie. say 24 footballers potentially using on average 50 litres/shower, and the limitations of the incoming mains electrical supply of 100 kVA.
7. The solution is to install a standalone external LPG external tank and regulator on a concrete base of a size to accommodate a demand of 65KW/hr heat output – say 1,200 litre capacity with a vapour take off likely to be circa 5kg/hr.

8. The LPG tank must be located a minimum of 3m. From any building and be accessible and within easy reach of the tanker refill hose.
9. The requirement is for 4no. Rinnai 'Infinity plus Renewables' boilers to be installed served by 4no. coffin 500 litre cold water tanks. All located in a purpose made plant room in the main store area of The Pavilion. See boiler information included in this document.
10. The installation and contractor is to include for concentric flues, temperature mixing valves, booster sets, expansion & pressure relief kits, pressure balancing valves, temperature mixing valves, all pipework, fittings, brackets, insulation, secondary pump return and labour.
11. The main contractor is to include for the installation of the showers and pipework back to a 15mm isolation valve. Also to include for concussive shower valves. This installation will ensure all seven showers would operate with the set same flow and pressure.
12. A PC Sum of £20k is to be included for the supply and installation of the boilers, water tanks and whole internal hot water pipework etc., excluding the works described for the shower heads and LPG tank installation.
13. The roof PV panels are to boost the provision of hot water and generate electrical power to feed into the National Grid and supplement the power consumption of The Pavilion.
14. The PV panels are to be located on the south facing section of the corrugated roof using proprietary brackets and fixings. Installation to include for all necessary connections and controls. The whole system must have MCS012 & BBA Certification.
15. Other works required are the complete overhaul of the gutters and rwp's. Some gutter brackets and joints are missing. In addition, there's one noticeable roof leak from a cracked corrugated roof panel over the main room.
16. Detailed study of the following information, photographs and drawings will help identify and understand the planned works and improvements.

Photographs of The Pavilion









Indicative Heating System Installation

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infinity PLUS renewables

Rinnai offers both flat plate and evacuated tube collectors, each with specific benefits to suit your application. Either option will provide years of low maintenance, low cost energy to heat your water provided the units are correctly sized and installed.

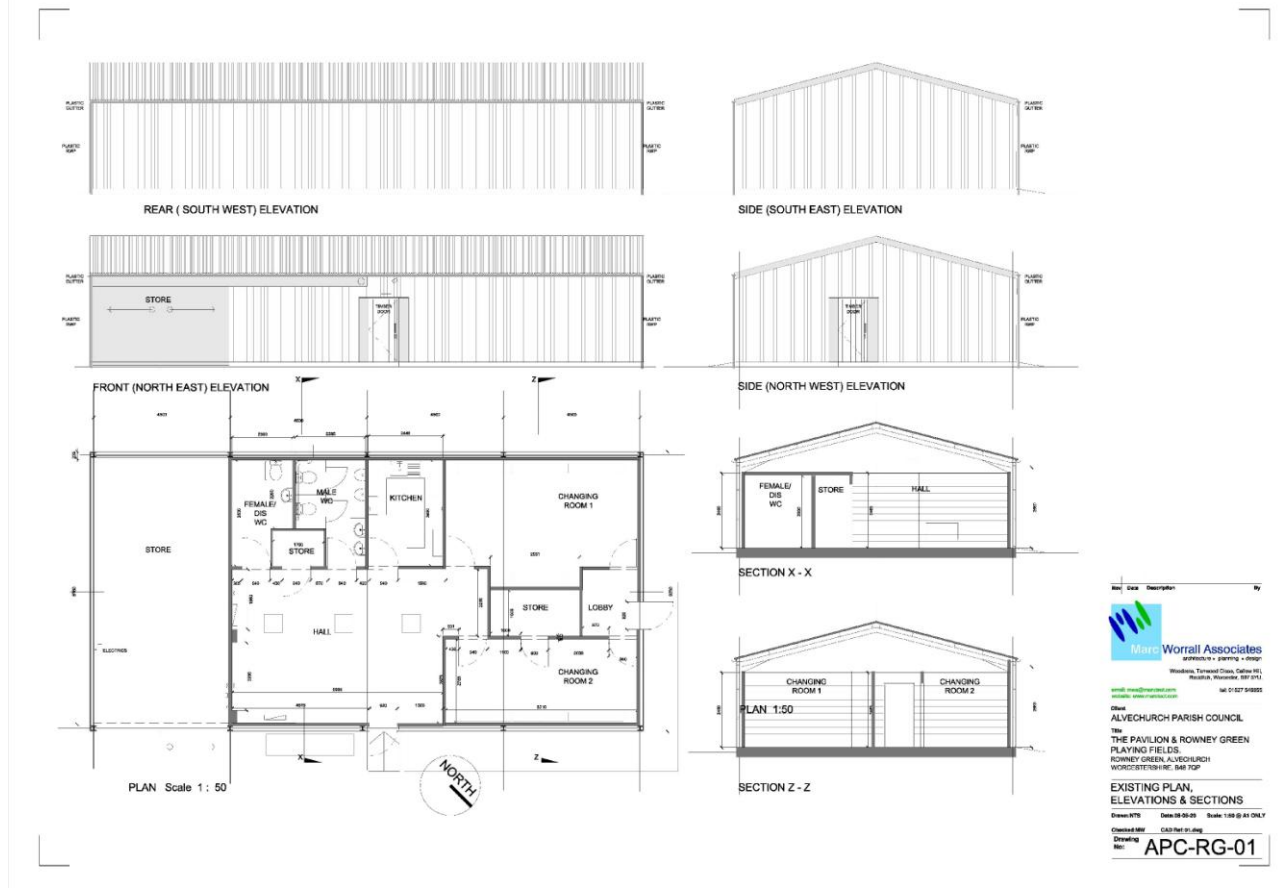
Orientation

Both flat plate and evacuated tube collectors work best when facing due south. However evacuated tube collectors will outperform flat plate collectors when a due south location is not an option, i.e. east/west facing or both.

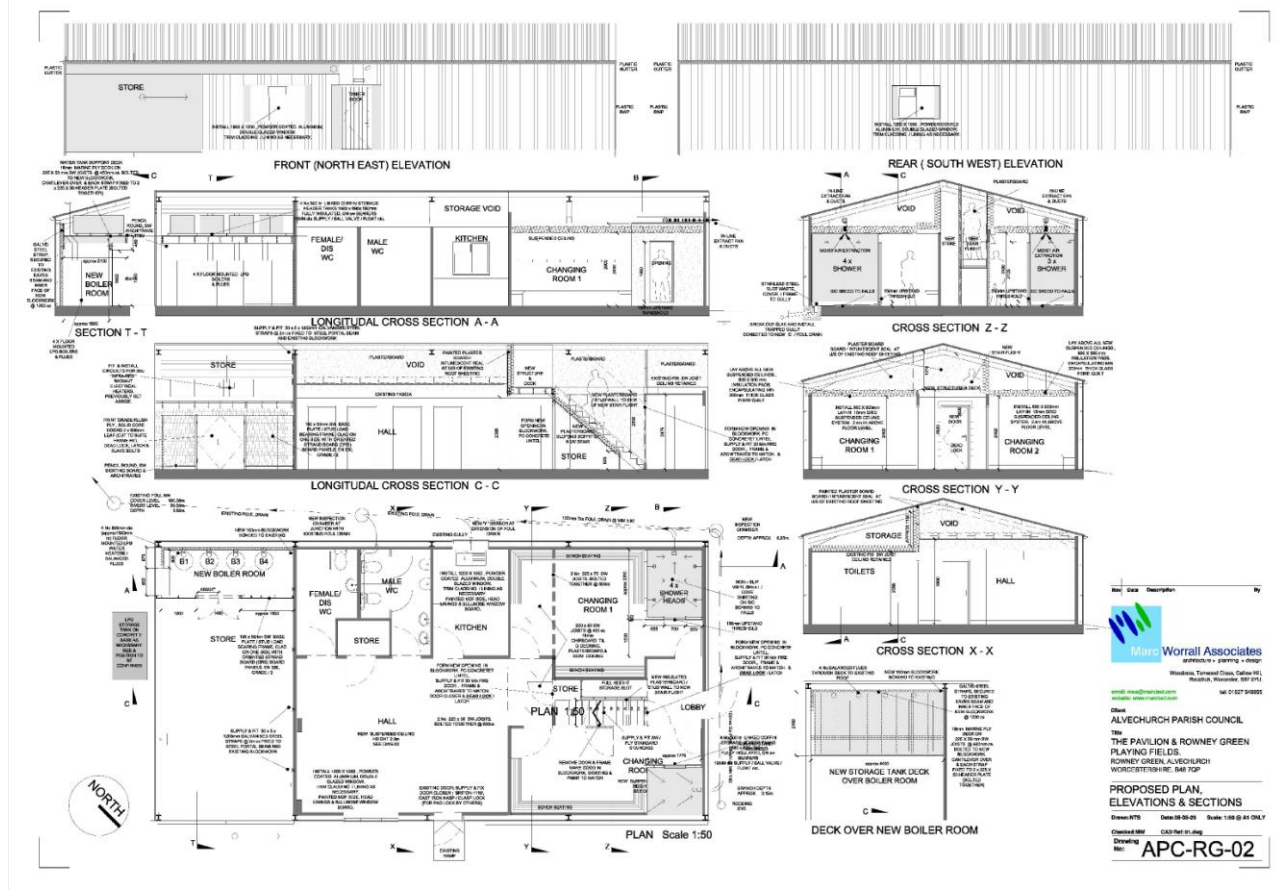
Performance

The performance of a flat plate collector is close to that of an evacuated tube collector in the summer months when facing due south. Evacuated tube collectors have better overall results in both early and late season and they are not affected

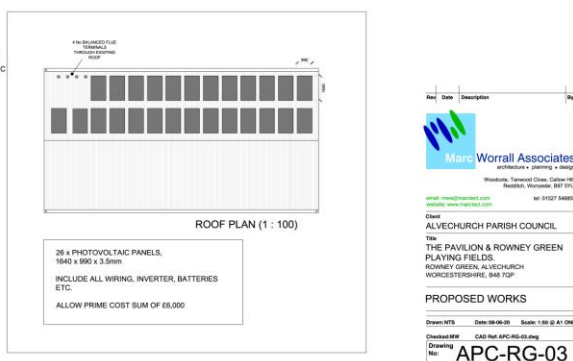
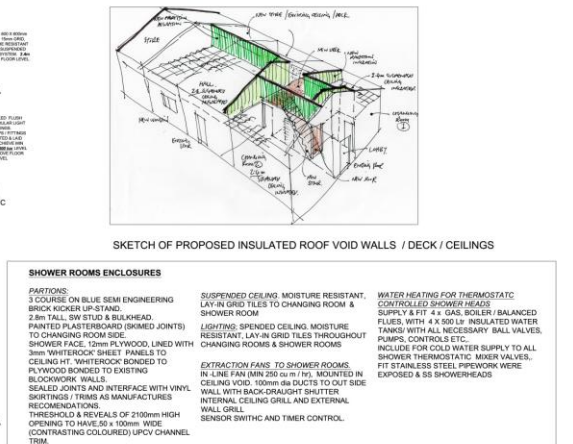
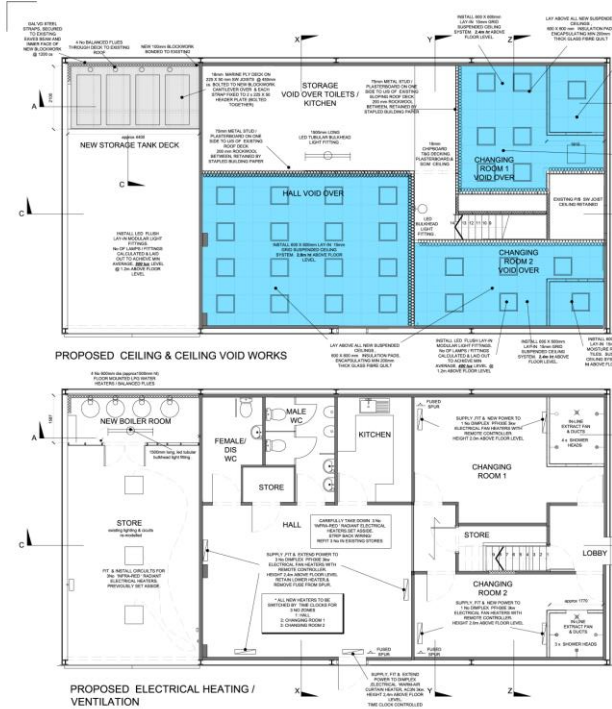
Existing Plan



Proposed Plan



Heating & Suspended Ceiling Details



Proposed Plan

