Amateur Swimming Association
Swimming Pool
Visual Condition Survey

1. Swimming Pool Name: Quarry Swimming Pool
2. Swimming Pool Address: Priory Road, Shrewsbury, SY1 1RU
3. Swimming Pool Owner: Shropshire Council
4. Swimming Pool Operator: Serco Leisure
5. Visual Survey Inspection Date: 5.8.16
6. Brief description of facility: The building houses multiple swimming pools with Ancillary changing rooms, reception vending area, multiple cafés and spa/sauna/steam room. Service plant room and office accommodation. There are 3 swimming pools: 33m Pool with 6 lanes and a 51 metre flume, this pool also has 3 diving boards which are no longer in use and a spectator gallery. There is also a 25m pool, an 18m pool and a 10m pool.
7. Year of original build: 1880-(Main Quarry Pool added in 1971)
8. Gross area of Building: Approximately 4460m²
9. Number of floors: Four Floors
10. Operational hours per week: n/a
11. Major Renovation and Refurbishment History:

    The building has had repair and refurbishment work done from time to time.

12. List of Occupational Spaces:

    Pool - Main Pool 33.3 metres x 6 Lane, 51m slide & Diving Boards. Additional 25m Pool.
    Pool- 18m Learner/Teaching Pool,
    Pool- Diving Pool - None
    Changing Areas – Single sex changing facilities plus family change
    Fitness Suite – Small fitness suite
    Sauna/Health Suite – Small Spa area comprising of Spa, sauna and steam room.
    Reception – Ground floor
    Offices – Manager/Supervisors offices.
    Toilets - Wet (first floor) and dry (ground floor)
    Cafeteria – Spectator/Vending area on first floor plus outside café overlooking adjacent park.

13. Adequacy of space – Main pool hall is reasonably spacious the rest of the building accommodation is satisfactory **(S)**

14. Estimated capital construction costs of an equivalent building at today's prices - £15 to £20 million depending on site. However a similar configuration (33.3m main pool) plus (25m pool) and additional teaching pools would not be considered today and the provision would be more likely to be a 25m x 8 lane pool with teaching pool plus ancillary fitness suite and dance/activity studio. Depending on the mix of additional facilities the current cost of a replacement facility would be in the order of £10 to £15 million.

15. Overall Building rating – **(S)** Satisfactory

E = Excellent
All systems classified as health and safety or structural rated "excellent," no systems rated below "satisfactory," preventive maintenance plan in place.

S = Satisfactory
All systems categorized as health and safety or structural rated "satisfactory" or better. No system rates "non-functioning" or "critical failure."

U = Unsatisfactory
Any system categorized as health and safety or structural rated "unsatisfactory." No health and safety or structural system rated "non-functioning" or "critical failure.

F = Failing
Any system categorized as health and safety or structural rated "non-functioning" or "critical failure."

16. Building System Condition ratings and Definitions

E = Excellent
System is in new or like-new condition and functioning optimally; only maintenance and repair is needed

S = Satisfactory
System functioning reliably; routine maintenance and repair is needed.

U = Unsatisfactory
Replacement of some or all components is needed.

N= Non-Functioning
System is non-functioning, not functioning as designed, or is unreliable in ways that could endanger occupant health and/or safety. Repair or replacement of some or all components is needed.

C= Critical failure
Same as "NF" with the addition that the condition of at least one component is so poor that at least part of the building or grounds should not be occupied pending replacement or repair.

NOTE:
Visual inspection of all structural systems is required. In some cases this may necessitate opening ceilings, walls, or using other invasive inspection techniques. Please use the "comments" section for each building feature to note limitations to visual inspections of structural elements and actions taken to overcome these limitations. Please see the Building Condition Survey guide for additional information.

17. Site Utilities **(S)**

a. Water

i. Supply ii. Sanitary iii. Recycling/Harvesting iv Closed Drainage Pipe Stormwater Management System v. Open Drainage Stormwater Management System vi. Catch Basins/Drop Inlets/Manholes vii. Culverts viii Outfalls & Sewer Systems

Water supply is from the mains. Supply water is housed in the roof level air ventilation plant room. There is currently no recycling or harvesting of rainwater or grey water. Stormwater is primarily by closed drainage pipe system.

j. Gas

Metered supply

k. Oil n/a

i. Fuel Type ii. Storage type (above/below ground) iii. Storage Capacity

l. Electricity

i. Service Provider ii. Self-generation iii. Utility provided

Metered supply. There is no self-generated electricity by means of CHP.

m. Other n/a

There is a conscious effort to become energy efficient through the use of systems such as:

- Variable speed air fans linked to humidity control
- Variable speed drives on circulation pumps

18. Pavements, Car Parks and other external access routes (concrete, asphalt, other) **(S)**

The south-west entrance to the facility is paved with traditional paving slabs with an approach

through an illuminated landscaped area from the main thoroughfare. The immediate approach to the entrance is by paving slab steps with an adjacent disability ramp approach. This area is in good condition**.**

19. Foundations **(S)**
    a) Type (check all that apply): Reinforced Concrete Masonry on Concrete Footing
       The foundations are by reinforced concrete masonry with traditional piled supports.
    b) Evidence of Structural Concerns
       Significant areas of the foundation footings, piles and undersides are visible from the undercroft beneath the main pool. There are no visible signs of deterioration in the area. Similarly around the exterior of the building there are no visible signs of foundation subsidence, cracking or movement,
    c) Structural cracks
       None observed
    d) Water Penetration
       None observed.
    e) Heaving/Jacking
       None observed
    f) Unsupported areas
       None observed
    g) Decay/corrosion
       None observed

20. Building Envelope **(U)**
    a) Structural Floors
        - Reinforced concrete slab
          .
    b) Evidence of structural Concerns with Floor Support System (Beams/Joists/Trusses, etc.):
        - Structural cracks
          None observed
        - Unsupported ends
          None observed

    c) Evidence of structural concerns with structural floor deck
        - Structural cracks
          None observed
        - Deflection
          None observed at ground level or first floor level
        - Rot/decay/corrosion
          See (b) above
        - Overall condition of structural floors
          Despite the corrosion and deterioration of the north-east exterior at the first floor beam level the overall condition of the structural floors appears to be still sound

21. Exterior Walls/Columns **(S)**
    a) Materials
        - Concrete

- Masonry
- Concrete fascias
- Panelled cladding

b) Evidence of structural concerns with support system (columns/base plates/connections)
None observed

c) Structural cracks

d) Rot/decay/corrosion
Non observed

e) Condition of external cladding **(U)**
External cladding is generally good on all sides of the building, there is some cracking on the rear of the building which appears to be due to the lack of and misalignment of expansion joints.

f) Condition of internal cladding
Most internal walls are either tiled or plastered.

g) Inadequate flashing
None observed

h) Efflorescence
Noneobserved

i) Other problems

22. Chimneys/Flues **(S)**
Appear to be in good condition with no signs of deterioration.

23. Parapets **(S)**

Construction Type
The parapets of the building vary in there construction type and reflect the repairs undertaken through the life of the building.
Part of the parapets consist of brick and coping stones and part have had the coping stones removed and the parapet surface made good with asphalt sheet flashings.
Overall condition of the parapets
Satisfactory

24. Exterior Doors **(S)**

Door types
Public entrance doors of aluminium and reinforced glass in satisfactory condition.
Various staff doors around the perimeter of the building of aluminium construction in poorer condition.
Overall condition of the exterior door units
Satisfactory
Overall condition of the exterior door hardware
Satisfactory
Door magnetic locking devices n/a
Automatic systems n/a
Safety/Security Features n/a

25. Exterior Steps, Stairs, and Ramps **(S)**
Overall condition of exterior steps, stairs, and ramps
See (18) above.

26. Fire escapes **(S)**
Adequacy of fire exits (number & routes)
Satisfactory
Overall condition of the fire exits
Reasonable

27. Windows (external & internal) **(S)**

Type of window frames – steel, PVC, solid wood, aluminium
All windows are of an aluminium clip frame type with double glazed units. Most of these double glazed units the seals have now failed and are in need of replacement, these are inadequate for most public facilities and especially for a high energy use swimming pool.

Energy efficiency – single, double , triple glazing, tinted
Double glazed (Seals gone). Unsatisfactory.

28. Roofs & skylights **(S)**
    Type of roof construction
        - Concrete cast in situ over a series of supports. Wood wool slats originally used for shuttering kept in place as insulation.

Evidence of structural concerns with support beams

- Structural cracks
  None observed
- Unsupported ends
  None observed
- Rot/decay/corrosion
- Deflection
  None observed
- Seriously Damaged/Missing Components
  None observed
- Other Problems
- Evidence of structural concerns with the floor deck
  None observed.
- Does the roof have skylights
  Yes
- If yes, what material are the skylights made? Aluminium
- Condition of skylights Good

- Overall condition of roof
  Satisfactory

29. Exterior lighting **(S)**
    Ornamental street lighting in the garden area to the front of the building and car parking enveloping the rest of the area.

30. Interior Spaces **(S)**
Interior bearing walls and fire walls
- Construction of support walls
  The internal walls both support and non-support are substantial and are mainly of double width concrete/brick construction.
- Condition of support walls
  Satisfactory – no sign of cracks, deformities, lifting or deflection.

Other interior walls **(S)**
- Type of materials
  Most walls require re-decoration
- Condition of interior non-support walls
  Reasonable

31. Floor Finishes **(S)**
    Types of floor finishes
    - Carpet n/a
    - Carpet tiles
      Carpet tiles in parts of foyer
    - Resilient tiles or sheet flooring
      Sheet flooring in corridors, spectator vending area and stairs; these areas are partially worn but serviceable.
    - Hard flooring (wood) n/a
    - Hard flooring (concrete)
      Plant room
    - Hard flooring (brisk)
    - Quarry tile
      Pool surround and changing rooms
    - Stone n/a
    - Other

32. Interior Doors **(S)**
    - Composition of interior doors
      Metal frame and reinforced glass and wooden frame doors
    - Closers
      In reasonable working condition.
    - Fixtures & fittings
      Worn but serviceable
    - Automatic systems
      Evidence of electronically operated openers
    - Security and safety

(see above)

- Overall condition of interior doors
  Reasonable

33. Interior Stairs **(S)**
    - Construction materials
      Timber on metal frame
    - Evidence of wear and deterioration
      Worn but in reasonable condition
    - Overall condition of stairs
      Satisfactory

34. Elevator, lifts and escalators **(S)**
    One small elevator from the ground floor to the first floor.
    Overall condition of Elevator, lifts and escalators
    Satisfactory

35. Interior electrical distribution **(S)**

36. Interior Lighting System and ceilings**(S)**
    Types of interior lighting systems
    Sodium light fittings in the pool hall mainly accessible from the ceiling void.
    Condition of interior lighting fixtures
    Reasonable
    Energy Savings functionality
    Reasonable
    Overall condition of internal lighting system
    Satisfactory
    Emergency Lighting System
    Satisfactory
    Interior ceilings
    Apart from the pool hall all ceilings are either plaster finish or ceiling tiles in reasonable condition.
    Some tile damage.

37. Fire Safety Systems Fire alarm, smoke detectors, fire extinguishers Sprinklers, Standpipes, Kitchen Hoods
    Not surveyed

38. Communication and Public Address systems **(S)**

    a. Communication systems are adequate Yes

    b. Condition of communications system: Satisfactory

39. Domestic and toilet supply plumbing and drainage system **(S)**
    Description of plumbing system
    Types of pipe work – Iron, galvanised, copper, lead, PVC, Other
    Overall condition of plumbing and drainage system

40. Plumbing fixtures and fittings (including toilets, urinals, lavatories, etc.): **(S)**
    Types of fittings stainless steel, iron, galvanised, PVC, ceramic, other
    Ceramic bowls to urinals, toilets and basins all in satisfactory condition.

<u>Swimming Pool Specifics</u>

41. Reception and Lobby area**. (S)**
    The reception area does not suffer from any major maintenance deficiencies however its layout is restrictive allowing no large foyer area for customers to manoeuvre within before approaching the reception point. For this reason there will always be congestion in this area and certain programmed points throughout the day i.e. at the start of specific sessions.
    The reception control point is small considering the size of the facility and the number of users.

42. Access routes **(S)**
    As the swimming pool deck is at first floor level access from the reception lobby is inevitably by stairs and where necessary lift.

    The stairs are in the centre of the lobby and open aired.

43. Changing Rooms **(U)**
    There is separate changing for the individual pools, the Quarry has its own changing facilities and the other three pools share changing facilities. However all facilities are of a similar standard.

    The changing rooms consist of three separate areas.
    (1) Male Changing
    (2) Female Changing
    (3) Family Changing room.

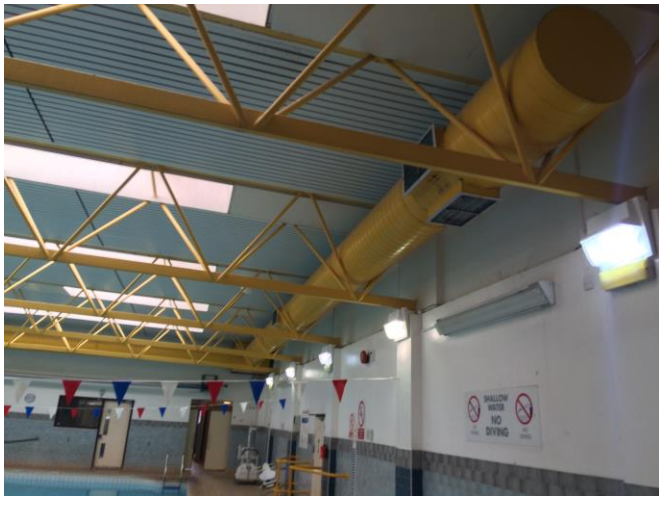
    All three areas are similar in that they contain open bench changing, some cubicle changing for increased privacy (more in the female changing room than in the men's), clothing lockers, wet side toilets and showers. Views shown are from the male changing room but are indicative of the other changing areas.
    The changing area is generally run down and tired in appearance. The fixtures and fittings are old and the colour scheme bland.
    The changing room deck quarry tiles are robust but old and unattractive.
    The walls and ceilings within the changing rooms are robust. The walls are tiled and in some places mismatched tiles have been used to retile which doesn't render to an attractive appearance.

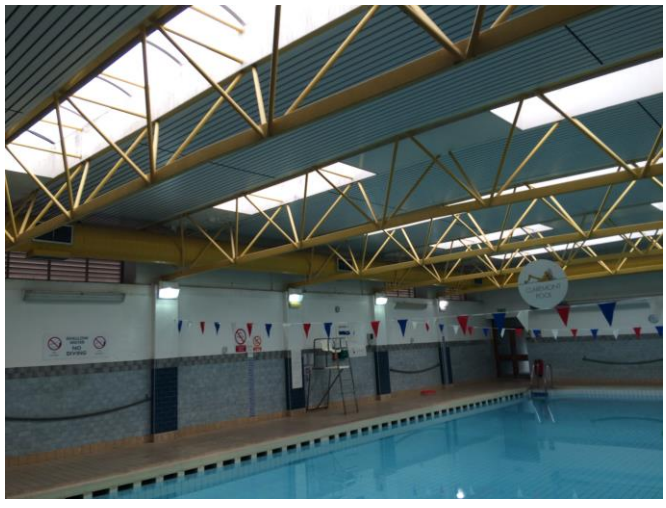
44. Lockers and cubicles **(U)**
The cubicles units are built into the changing room floor and walls. The lockers are old and unimaginative in their colour scheme and layout and need refurbishment.

45. Showers and wet toilets **(U)**
The shower area and wet side toilets are basic and workable and correspond with the rest of the changing areas and also need a make-over.

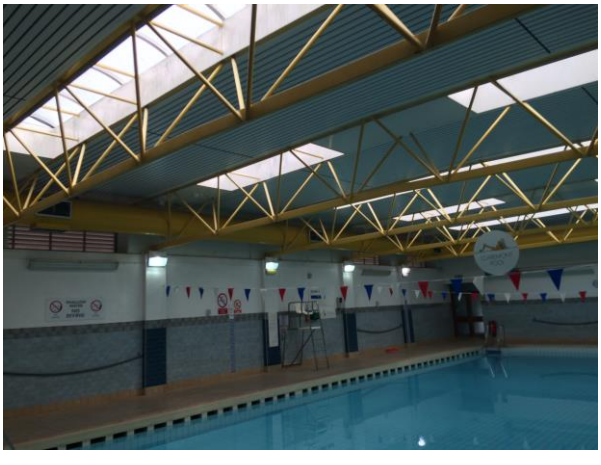
46. Pool access **(S)**
Pool access for swimmers is through two access points (1) communal male and female changing tunnels to quarry pools, and (2) from the communal male and female changing tunnels to the other pools. Both access routes are sufficiently near to the shallow end of the pool in the quarry pool and the middle pool in the 3 pool configuration.

47. Pool Hall **(S)**





48. Pool deck **(S)**
The pool deck is tiled with robust quarry tiles, which were the standard flooring of pool decks in the 1960's and 70's. They are serviceable and reliable but lack the attractiveness of modern ceramic tiles.



The swimming pool has a scum trough circulation system. **(S)**

49. Pool hall walls **(S)**
The pool hall walls are a mixture of tiled to ceiling or panel and frame with window insets (either to the spectator viewing area or to external views).

50. Pool hall ceilings **(S)**

The pool hall ceilings and roof is covered in the building conditioning survey undertaken by Faithful & Gould in 2014 and identifies the condition of the roof at present.

51. Pool hall ventilation **(S)**
The pool hall air circulation is by inlet and extract at ceiling level through longitudinal trunking. Although this is not a logical design the pool hall atmosphere is acceptable and the structure is such that any alterations would be difficult within the 3 pool config.

52. Pool hall Lighting – Artificial and Natural **(S)**
Natural lighting to the pool hall is average but the centre rarely operates without the pool hall lights on.
Artificial lighting is by ceiling lights that give a good vertical penetration and a reasonable ambience to the pool hall. Lights are changed from the ceiling void.

53. Pool Shell details **(S)**
54. Pool shell internal – tiling – concrete –PVC – Fibreglass –steel **(S)**
The pool shell is a conventional concrete pool, tiled and generally is in good condition and needs no significant refurbishment.
As the pool is at first floor level access to the external pool walls and undercroft is possible and a visual examination shows the pool tank to be in very good condition with no leakage or structural movement.

However the configuration of the pool with a well at the deep end is indicative of a traditional 33.3 metre pool that had diving boards fitted that have since been taken out of use. The pool therefore has a wasteful deep water end that has limited use (sub-aqua) but adds expense due to the increased water volume that requires heating and circulating etc. There are three options to consider:

a. Leave it as it is and accept the higher running costs
b. Fill in the deep well and retile to reduce running costs
c. Install a moveable floor to provide the option of having shallow water when required to programme more swimming lessons into the pool thereby increasing income.

55. Pool fixtures & fitting **(S)**

Pool Hall fixtures and fittings are generally stainless steel. The pool entry ladders are in reasonable condition.

The spectator seating is adequate and in reasonable condition. **(S)**

56. Pool Circulation System **(S)**
The pool circulation system is achieved by inlets throughout the pool and outlets at scum trough approx and at bottom outlets. It is a safe system and achieves good turnover and water quality. Integral pipe work is mainly exposed in the undercroft and at ground floor in the plant room area this compromises a variety of both existing cast and replacement plastic and is in reasonable condition.
No internal inspection of the pipework has been carried out however the filters were recently inspected with the internals reported by the operator to be of good quality. There was a leak detected evident below.

57. Pool access/exit **(S)**
Access from the changing rooms, as described previously, access can be improved, if required, by widening the entrance to the changing access to a village style changing area conversion.

58. Plant & Machinery **(S)**
Heating, Ventilation & Air Conditioning Systems Ducted Heating and Cooling Distribution Systems: Ductwork, Control Dampers, Fire/Smoke Dampers, VAVs, Insulation, Pool air quality. Building air quality. Humidity, mould

All the centre heating provision is by a primary hot water circulation system serviced by three strebel gas fired boilers that have relatively new burner heads and are in good condition for their age. Although they are not as energy efficient as newer boilers they are moderated by an automatic operating sequencer, which improves their efficiency and they remain serviceable.

59. Heating System Pool water, domestic water space heating Piping, Pumps, Radiators, Convectors, traps, Insulation, etc. **(S)**

Ventilation System Is there accumulated dirt, dust, or debris around fresh air intakes? Very little

Are fresh air intakes free of blockage? Yes
Is accumulated dirt, dust, or debris in ductwork? None seen
Are dampers functioning as designed? Partially
Condition of air filters: Not seen but it is understood they are cleaned/changed regularly
Outside air is adequate for occupant load: Yes

60. Disinfection System **(S)**

The pool water disinfection system is controlled by individual pool prominent automatic controllers. The inlet feed to the controller is taken pre filtration and pre floc dosing point therefore is at optimum. The pools are disinfected using calcium hypochlorite granules dosed directly into the circulating water post filtration. The pH is controlled via direct dosing of sulphuric acid and is adequately stored within bunds. Flocculant is also added pre filtration in the form if Poly Auminium Chloride. For some reason there is a PAC drum in-between two sulphuric acid drums, advice would be that this is moved and all PAC is kept together with all Sulphuric acid also being kept together. The disinfection system is operating effectively and no changes rather than logistical as above would be necessary. Appropriate tests are undertaken and records recorded.

61. Filtration System **(S)**

The pool water is filtrated through two large horizontal filters that are clearly the original filters. They appear to have been well maintained and the exterior shell shows no signs of significant deterioration, although the frequent paint coats may mask such. Filters received a recent media change and inspection which identified no signs of severe deterioration. The design of horizontal filters is inefficient and usually only the front third of each filter is effective in filtrating. Nevertheless the system is working and water quality is satisfactory and there is no reason to consider removing these filters until it is absolutely necessary. If this pool remains operational they will have to be changed within the next ten years. They were constructed on site and the plant room built around them and will have to be cut up on site.

62. Air Conditioning system **(N/A)**

Types of system in use – Constant volume – Variable air volume – Dual-duct or multi-zone - other

Technology Used

Energy efficiencies installed

63. Catering areas **(S)**

In good working order. One café on first floor and one café to outside access via park.

64. Other areas **(S)**

The office and staff areas were investigated and pose no structural problem. They are limited but adequate in terms of decoration and fittings.

65. DDA compliance **(S)**

Apart from the plant area the building complies with the requirements of the Disability Discrimination Act and requires no significant alterations. However the access through the congestion point into the changing rooms is difficult to navigate for a wheelchair and the lift is questionable in its versatility with wheelchairs.

66. The future of the swimming pool

Overall building rating (S) Satisfactory

The Quarry pool Shrewsbury is operated by Serco Leisure on behalf of Shropshire County Council. The pool has been maintained and operated to a very high level ensuring the lifespan of the pool and the associated building is prolonged to its maximum. Currently the pool requires little by way of immediate maintenance and is operating to safe and effective operational parameters. The mid-long term future of the pool however will require great investment if the pool is to remain open beyond the next 5 years. However operational costs for a building and pool of this age and size will likely ensure the pool always operates at a deficit if major refurbishment or renovation is undertaken.

Richard Lamburn

ASA Facilities

26.08.2016