UKDIVEWORKS

Conditional Survey

Location:	xxxxxxxxx
Client:	xxxxxxxxx
Date of Survey:	xxxxxxxxx
UKDW Surveyor:	xxxxxxxxx

All areas inspected and detailed in this report are relevant to the date and time shown above only.

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SSIP

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1 Pool Specifications

1.1 Main Pool

Length:	50M
Width:	25M
Wall Depth:	2.0M both ends (Moving floors available at both ends to vary depth)
Tiles:	245mm x 120mm (white with cobalt blue lane markers)
Light fittings:	None
Outlets/inlets:	18 wall inlets – 9 visible floor inlets (Sump drains not visible as below the moving floor)
Overflow:	Deck level channel with overflow grating (350mm wide x 30mm deep)
Steps/Ladders:	8 integrated ladders with surface handrails
Lane markers:	There are 10 Lane markers within the pool tank
Expansion Joints:	12 Expansion joints were identified (4 Longitudinal, 8 transverse)
Anti-Drowning System	No anti drowning system installed

1.2 Learner Pool

Length:	20.5M
Width:	10.5M
Wall Depth:	1.2m Consistent depth (this depth was the set moving floor depth)
Tiles:	245mm x 120mm
Light fittings:	None
Outlets/inlets:	10 wall inlets – Sump drains located beneath moving floor
Overflow:	Deck level channel with overflow grating 350mm wide x 30mm deep)
Steps/Ladders:	4 integrated ladders with surface handrails
Lane markers:	There are no lane markers within the pool
Expansion Joints:	None visible – could not be determined
Anti Drowning System	No anti drowning system installed

2 Introduction:

UK Diveworks were instructed by xxxxxxxxxxxxxxxxxxxxxxxxxxxx, to conduct a condition survey of the pool tanks that are situated xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx.

3 Pool tank construction:

The pool tanks are constructed of concrete with screed and a tiled finish. The main pool tank is an olympic size swimming pool with 2 moving booms and 2 moving floors at each end of the pool. The learner pool has a full moving floor installed and was sat at a depth of 1.2m during our inspection.
All pool surrounds are laid to walkway tiling.

4 Survey Findings

Main Pool - Defects Overview

- Broken tile was identified – 1 lane marker broken on corner (situated in 3rd lane within 5 metres of the boom) – cutting hazard
- Heavy chipped step treads to ladders – cutting hazard
- 10 cms of missing grout to pool floor (centre section) – cutting hazard
- Where boom meets the wall, missing grout to tiles – cutting hazard
- Poolside tiling – 2 areas with finger grip tiles chipped – cutting hazard
- Adjacent tile to finger grip – hole found – cutting hazard
- Various areas of missing grout (1 % of poolside grout affected) cutting hazard
- Broken overflow channel grating -trip hazard
- Broken Tile adjacent to finger grip tile broken – Cutting hazard
- Poolside flag pole anchors missing grout around perimeter
- "P strip" on moving floor edges has deteriorated and requires replacement to both ends of the main pool
- Plastic on booms raised in areas and requires re-fixing
- In excess of 50mm gap down all edges of the vertical sides of the booms
- Missing screws to access hatches on both booms (approx 34 missing screws)
- Missing screws on "P strip"
- Algae stained poolside tiling

Learner Pool - Defects Overview

- No internal defects noted to the pool tank
- Poolside tiling 1 chipped tile – cutting hazard
- Minimal areas of missing grout (less than 1%) to poolside tiling
- Moving floor plastics are uneven in places and require re-fixing
- "P Strip" is perished and missing in areas. Renewal required

5 Main Pool

5.1 Integrated ladders

There are 8 integrated ladders that serve the entry and exit needs of pool users. A surface mounted handrail is installed on poolside at each ladder location. These hand rails were secure and all fixings were present.
Below surface, inspection of the step treads took place and it was found that large delamination and chipping has occurred to the step treads of the integrated ladders. This is extremely hazardous to pool users as full body weight will be placed on these step treads and there are sharp edges present.

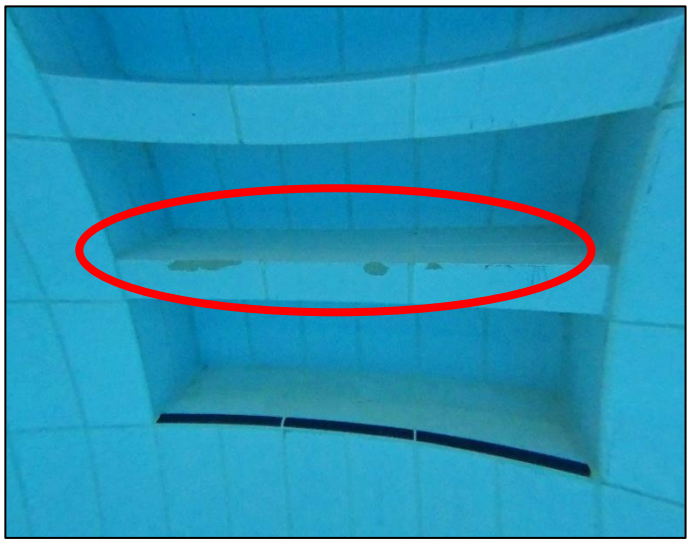

Photo 1: Chipped step tread – hazardous to pool users

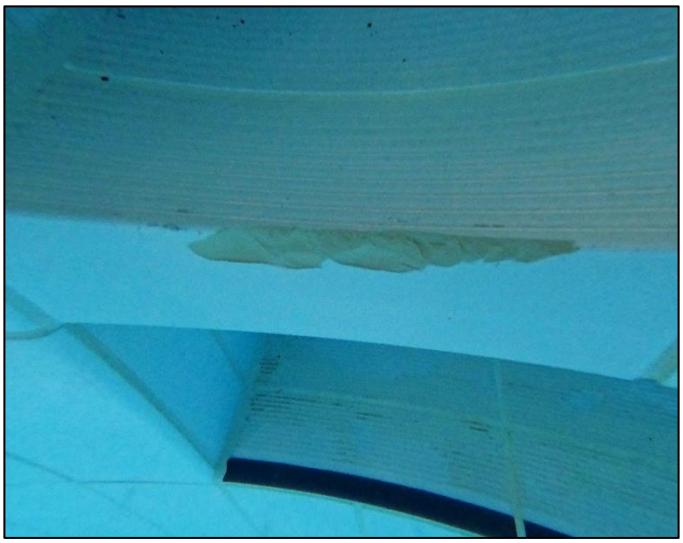

Photo 2: Close up of chipped step tread

Photo 3: Badly chipped steps

Photo 4: Further chipped steps

Recommendation 1: High Priority – Screed in epoxy resin to ladder treads to eliminate sharp edges and make safe.

5.2 Tile and grout condition

The main pool tank has been laid to white gloss tiling with cobalt blue lane markers on the floor and the walls have a non slip raised bobble tile. The tiles measure 245mm x 120mm.
The tiling is in good condition and defects to the tiling are minimal throughout the pool tank.
The defects noted during our inspection do require remedial works to make them safe to pool users and eliminate sharp edges.
The pool grout has suffered depletion of approximately 2mm which is an acceptable level without any rectification works required. An area of 10 cms was identified as needing to be re-filled due to complete grout loss.

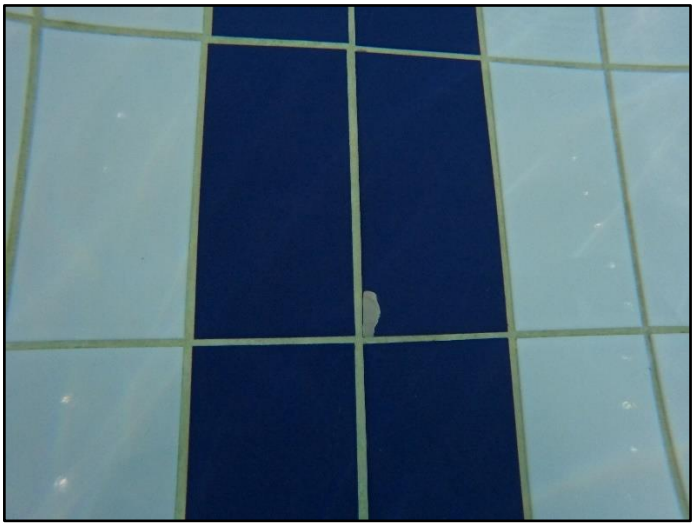

Photo 5 – Chipped tile within main pool tank

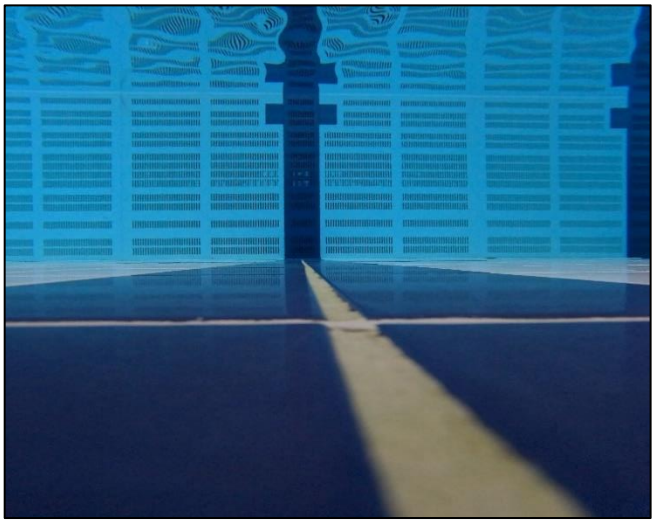

Photo 6 – Minimal grout loss throughout the pool

Photo 7: Grout has turned yellow in majority of areas

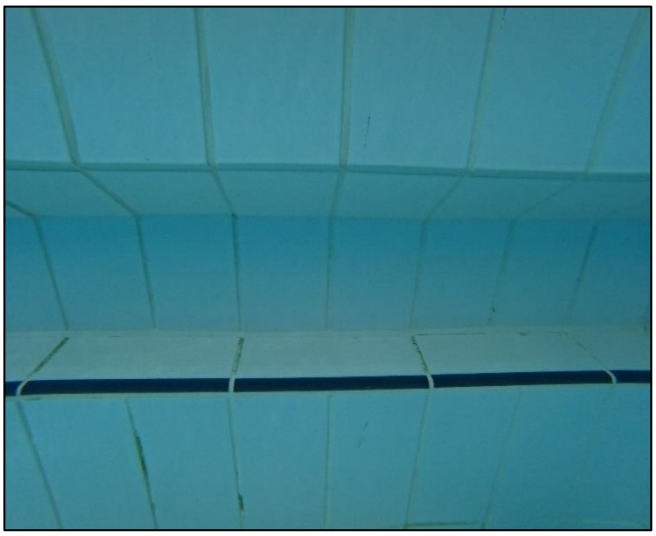

Photo 8: Foot hold ledge – tiles in good condition

Photo 9 – Missing grout next to boom on wall

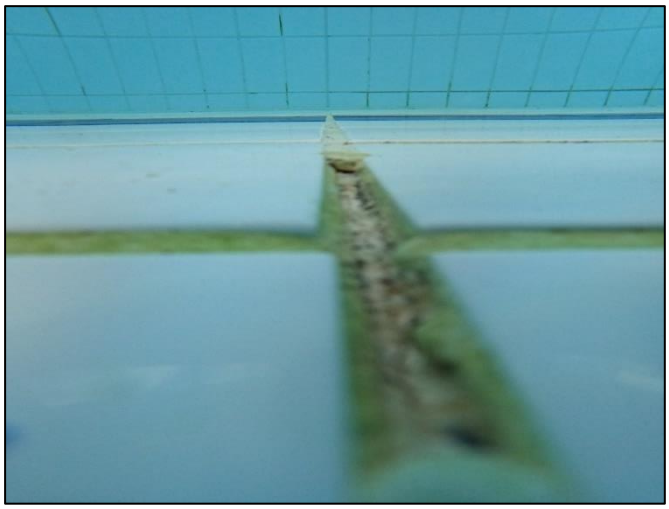

Photo 10 – 10cm area of missing grout

Recommendation 2: High Priority – Using underwater epoxy resin, re-screed material in to areas of missing grout. Also screed epoxy resin over the chipped areas on the steps to eliminate sharp edges.

5.3 Grilles, "p strip" and plastics

All grilles comply with HSG179 document. This is in reference to the 8mm rule. All grilles and plastics were probe tested to ensure that these gaps did not exceed the perameters of the guidance document. All grilles were secure and no fixing were missing.

Plastics relating to the booms and moving floors were in good condition. However there were gaps exceeding 50mm to every vertical boom edge where it meets the pool wall. This is a non conformence and requires remdial works to rectify.

There were approximately 34 missing securing screws to the boom access hatches which require replacement.

The "P Strip" that serves the edge of the moving floor to ensure no gaps are present has suffered splitting, crushing and is in a defected state. This requires removal and installation of new p strip.

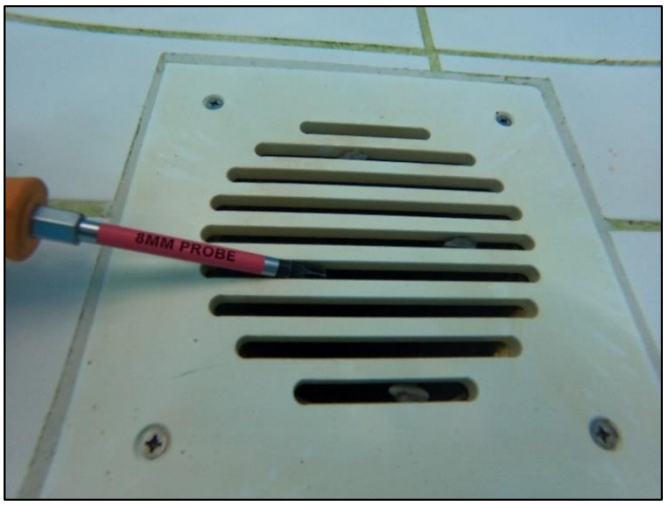

Photo 11 – Probe test completed to floor grilles

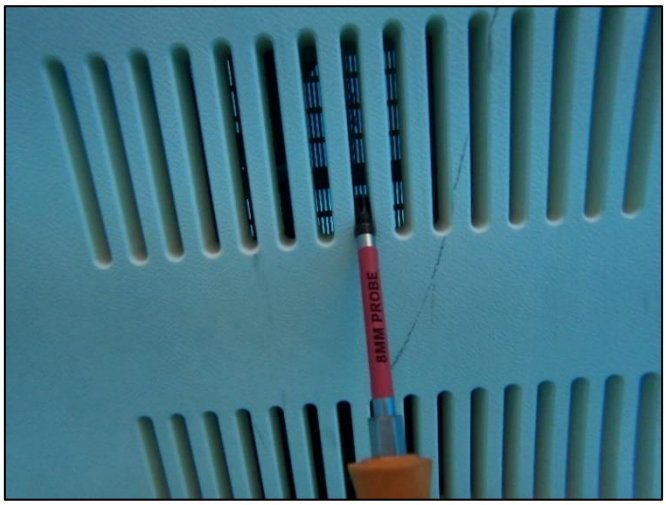

Photo 12 – Probe test to boom plastic apertures

Photo 13: Perished P strip

Photo 14: Split P strip

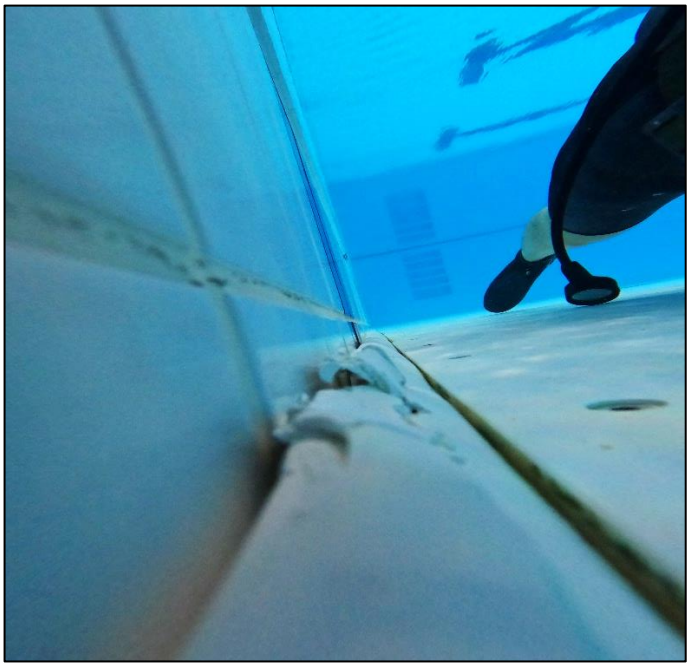

Photo 15: Further P strip Damage

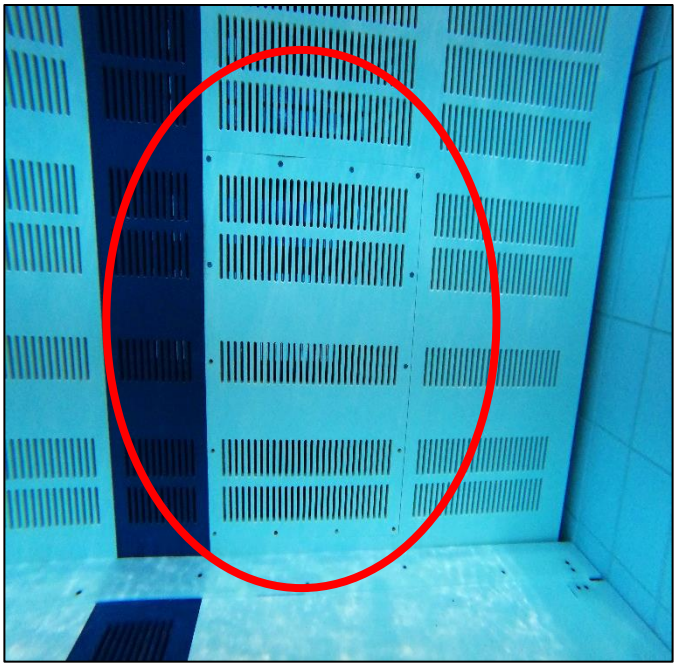

Photo 16:Access hatch to boom missing securing bolts

Photo 17: 50mm gap between pool wall and boom at 8 locations (Evey corenr of the 2 booms)

Recommendation 3: High priority – Re-instate missing fixings to access hatches of boom, remove damaged "p strip" and re-install new to eliminate the perished, split and crushed exisiting strips. Install an additional plastic strip to each vertical corner of the boom to close 50mm gap (this will need further investigation to ensure that the boom will not catch on the way up and down).

5.4 Poolside Walkways and overflow gratings

The poolside is laid to non slip tiling. There is an overflow channel which has HDPE plastic oveflow grating installed. The overflow grating measures 350mm wide x 30mm deep and is white. Upon inspection of the overflow channel grating, it was found to have missing sections which do not conform to HSG179 8mm rule. It also poses as a tripping hazard along with the potential for broken toes and ankles. The overflow channel grating requires replacement within the areas that have gaps.

The poolside tiling has defects which need to be rectified as soon as possible as these pose a cutting hazard to pool users. Chipped hand grip tiles, splintered tiles adjacent to the hand grip tiles and chipped tiles are present.

Photo 18: Damaged tile adjacent to hand grip tile alongside the boom

Photo 19- Splintered tile – sharp edges exposed

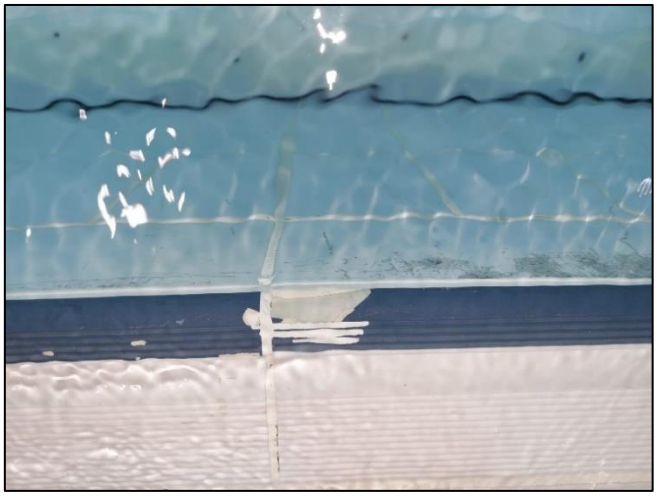

Photo 20: Chipped fingergrip tile – cutting hazard

Photo 21: Missing overflow channel – tripping hazard

Photo 22: Hole within pool surround tiling

Photo 23: grout missing around poolside (1%)

Recommendation 4; High Priority – Remove badly damaged tiles and install new using epoxy resin. Screed in epoxy resin to chipped tilingto make safe. Install new sections of overflow channel to ensure no gaps exceed 8mm. Screed in ned epoxy resin to missing grout areas.

6 Learner Pool

6.1 Integrated ladders

The learner pool has a total of 4 ladders serving the entry and exit points of the pool. These ladders were in good condition and showed no signs of defect or danger to pool users. All poolside hand rails were checked and all fixings are present and secure.

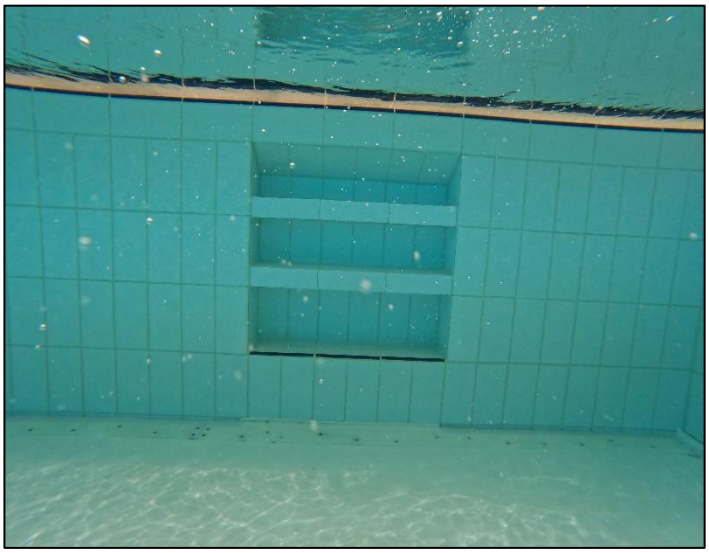

Photo 24: Overview of integrated ladders

Photo 25: Overview of ladder hand rails (All secure)

6.2 Tile and grout condition

The learner pool tank has been laid to white gloss tiling to the pool walls. The tiles measure 245mm x 120mm.
The tiling is in good condition and defects to the tiling are minimal throughout the pool tank.
There were no defects noted during our inspection in respect ot the tiling or grouting,

Note: The floor tiling could not be inspected due to access beneath the moving floor not avaialble with the diving method UKDW provided on site for the inspections. This decision was discussed with management and agreed.

6.3 Grilles, "p strip" and plastics

The grilles within the learner pool were all checked for conformence to the 8mm gap rule. All grilles passed the 8mm probe test and were all secure at the time of our inspection.
The Plastic panels within the pool moving floor are uneven in places and require re-fixing down to make them flush.
The P strip has been crushed and is missing in areas to the circumference of the pool moving floor. This is exposing gaps that exceed 8mm and require to be rectified in line with HSG179.

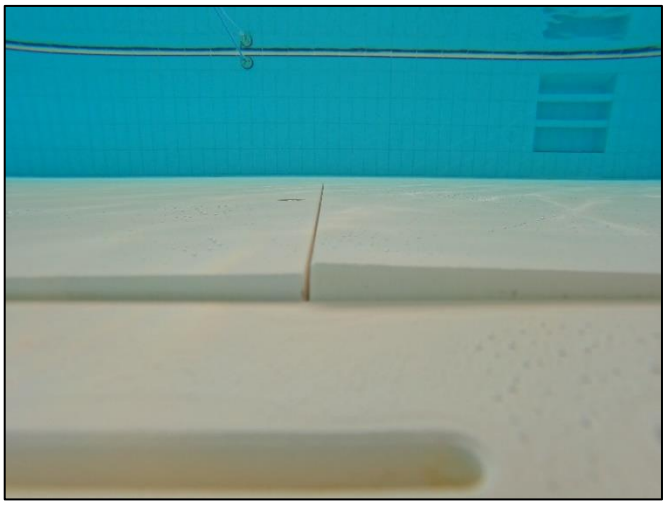

Photo 26 – Uneven plastic panelling

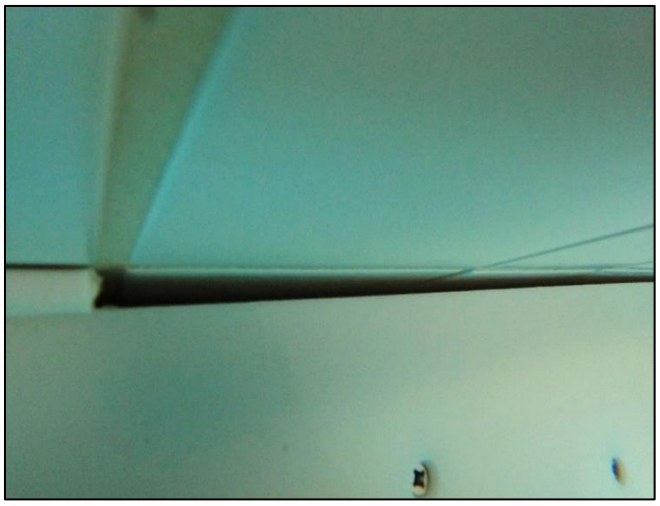

Photo 27 – Missing P Strip – gap exceeding 8mm

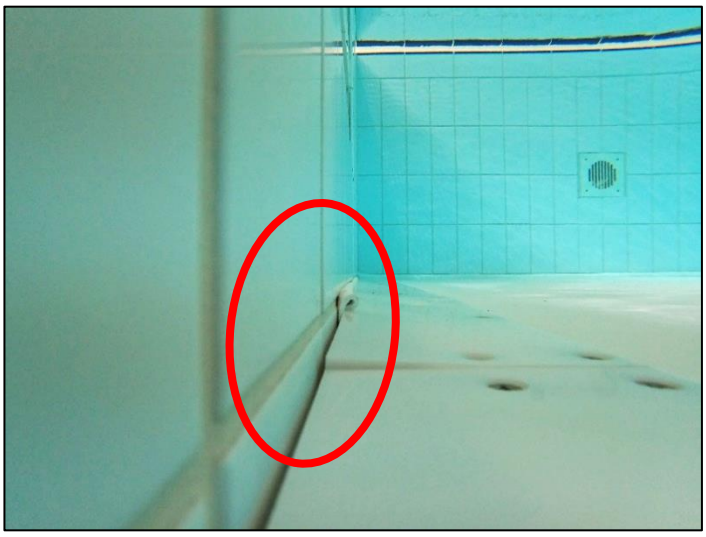

Photo 28: P strip squashed and missing

Photo 29: Wall inlets passed probe test

Recommendation 5: High priority – Remove damaged "p strip" and re-install new to eliminate the perished, split and crushed exisiting P strips.

6.4 Poolside Walkways and overflow gratings

The poolside is laid to non slip tiling. There is an overflow channel which has HDPE plastic oveflow grating installed. The overflow grating measures 350mm wide x 30mm deep and is white. Upon inspection of the overflow channel grating, it was found to have no missing sections.
The poolside tiling is in very good condition with only 1 tile found to be defective. This tile requires making safe or removal and replacement.
There is isolated areas where small amounts of grout are missing. These require reinstatement for safety reasons.

Photo 30: 1 single tile with defect on poolside surround

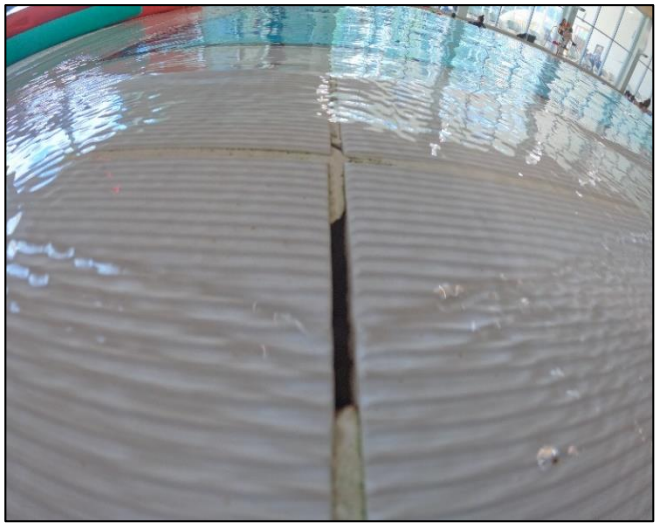

Photo 31: Missing grout – requires reinstatement

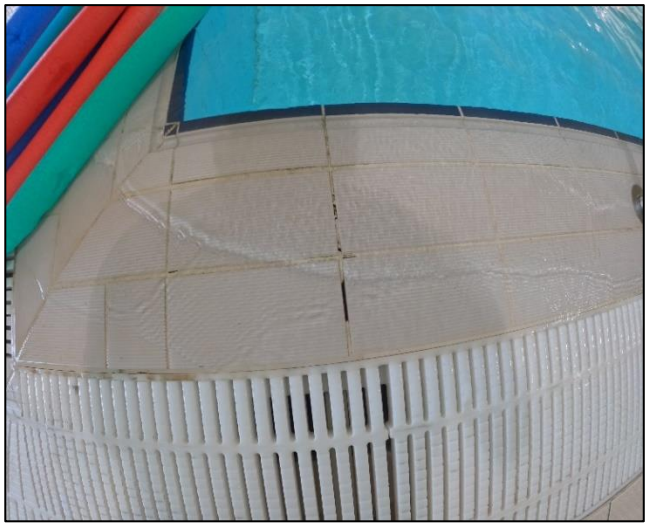

Photo 32: Missing grout overview

Photo 33: Overflow channel grating in good condition

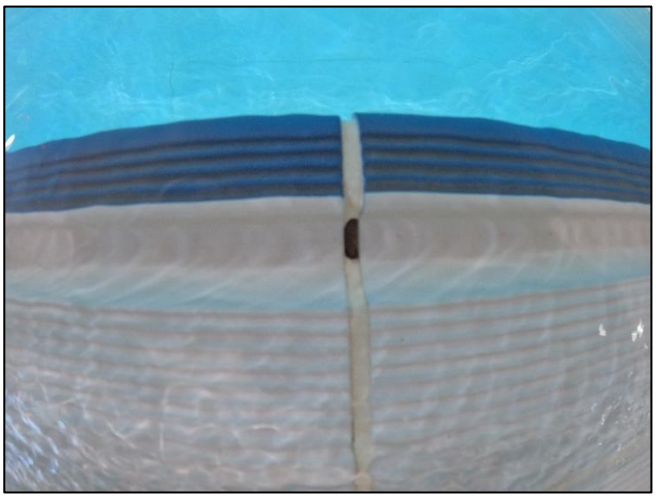

Photo 34: Missing grout within fingergrip tiles

Recommendation 6: High Priority - Remove defective tile and replace with new using epoxy resin. Reinstate missing areas of grout,

7 Recommendations

7.1 Main Pool

Item	Recommendation
Recommendation 1	High Priority – Screed in epoxy resin to ladder treads to eliminate sharp edges and make safe.
Recommendation 2	High Priority – Using underwater epoxy resin, re-screed material in to areas of missing grout. Also screed epoxy resin over the chipped areas on the steps to eliminate sharp edges.
Recommendation 3	High priority – Re-instate missing fixings to access hatches of boom, remove damaged "p strip" and re-install new to eliminate the perished, split and crushed exisiting strips. Install an additional plastic strip to each vertical corner of the boom to close 50mm gap (this will need further investigation to ensure that the boom will not catch on the way up and down).
Recommendation 4	High Priority – Remove badly damaged tiles and install new using epoxy resin. Screed in epoxy resin to chipped tilingto make safe. Install new sections of overflow channel to ensure no gaps exceed 8mm. Screed in ned epoxy resin to missing grout areas.

7.2 Learner Pool

Item	Recommendation
Recomendation 5	High priority – Remove damaged "p strip" and re-install new to eliminate the perished, split and crushed exisiting P strips.
Recomendation 6	High Priority - Remove defective tile and replace with new using epoxy resin. Reinstate missing areas of grout,

All of the recommendations within this report can be completed without draining the pool. UK Diveworks carry out a wide range of remedial works to swimming pools underwater. If you require quotation for any element of the recommendations in this report, then please email Andrew Wilkins on andy.wilkins@ukdiveworks.co.uk