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# Michaels Avenue Reserve – artificial sports field installation

## Why install an artificial field at Michaels Ave Reserve?

There is a major shortage of sports field capacity across much of the Auckland region, with some of the worst shortages found on the central isthmus. Michaels Ave Reserve is located in one of the areas of shortage.

Council has quantified the shortage and identified a range of solutions to provide increased capacity. These include drainage improvements, sand carpeting, installation of training lights and installation of artificial fields. Approximately \$85 million will be spent over the next ten years on increasing sports field capacity across the region to meet 80% of predicted 2022 demand.

The Michaels Ave Reserve artificial field will benefit the health and well-being of local young people by providing a top quality all-weather sporting venue and will bring some much-needed relief to the shortage of sports field capacity in this part of the city.

#### Was the public consulted about the installation of an artificial field at Michaels Ave Reserve?

In 2007 there was extensive public consultation leading up to the development of a Landscape Master Plan to guide future development of the park. The public consultation was promoted in council publications and local papers and included an open day on 28 July 2007. In 2008 the Tamaki Maungakiekie Community Board approved the plan, showing an artificial surface on the site of the No1 Field. Following adoption of the plan, large signs were erected in the park showing the plan. In July 2012, a copy of the master plan was delivered to about 500 houses in the vicinity of the park, with a letter advising that the project was about to start.

#### What is a Third Generation (3G) artificial field made of?

First a compacted gravel base is built. A 10mm rubber shock pad is then laid, followed by artificial grass, made of polyethylene. The fibres in the artificial grass are then filled with a mix of crumbed rubber and sand.

The crumbed rubber is manufactured in New Zealand from used tyres. An artificial field contains the rubber from over 20,000 recycled tires. The fibre used in the field at Michaels Ave is manufactured in the Netherlands by TenCate, the leading supplier of artificial turf components in the world. Their fibre complies with European and US standards and they guarantee it to be free of lead and heavy metals.

3G fields perform very much like natural grass in terms of player experience and the performance of the ball.

#### Is it safe to play on an artificial field?

Numerous studies have failed to find any significant health risk associated with playing on 3G artificial fields. FIFA studies suggest a slightly lower injury rate for players using artificial fields compared to natural grass fields.

- In October 2010, the California Office of Environmental Assessment completed a multi-year study of air quality above crumbed rubber infilled synthetic turf, and bacteria in the turf, and reported no public health concerns.
- In July 2010, the Connecticut Department of Public Health announced a new study of the risks to children and adults playing on synthetic turf fields containing crumb rubber infill showed "no elevated health risks."
- A December 2009 U.S. Environmental Protection Agency scoping study of the health risks from inhalation, ingestion, and dermal contact with synthetic turf and crumb rubber found every test result to be "below levels of concern."

- The California EPA released a report in July 2009 indicating a negligible human health risk from inhaling the air above synthetic turf.
- Independent tests conducted by the New York State Department of Environmental Conservation and New York State Department of Health, released in May 2009, proved no significant health concerns at synthetic turf fields.
- In July 2008, a US Consumer Product Safety Commission staff report approved the use of synthetic turf by children and people of all ages.

Artificial fields get hotter than natural turf on sunny days and users are advised to keep hydrated and rest if they become uncomfortably hot. Experience on the council-owned artificial field at Parrs Park in west Auckland has been that on very hot summer days, players take breaks every quarter rather than only at half-time.

#### Is the artificial field a threat to the environment?

The water run-off from the field at Micheals Ave Reserve does not flow to the pond/wetland to the north of the field, so valuable and sensitive environment will not be effected by the installation of this field.

Since 3G surfaces were developed in the late 1990's, approximately 3000 3G sports fields have been installed in Europe and approximately 1000 in North America. Over the next two years, the number of 3G fields is projected to increase by about 30% in Europe and about 50% in North America. A significant amount of research has been carried out on the environmental effects of these fields. Whilst there are still gaps in the research, there is a wealth of evidence from reputable and independent sources indicating that current knowledge shows synthetic surfaces to be safe for the environment.

### Does the artificial field have to be sprayed?

A customised maintenance schedule has been developed for the field at Michaels Avenue Reserve to ensure that the likelihood of moss, mould, algae and weed growth is minimised. Most maintenance of the artificial field will be mechanical grooming, using machinery approximately once or twice per week and more frequently in localised areas using hand tools. This treatment is very effective in maintaining drainage and removing most contaminants, including weeds. We do not expect to have to apply herbicides to the field.

Other maintenance requirements are limited to keeping the field clean and hygienic. This involves keeping the turf free of moss, mould and algae, fungus and bacteria should it begin to grow in the less-used areas of the field, such as in corners. Control of bacteria is important as the field will have blood, sweat and urine deposited on it during use and by animals and birds. The standard customised maintenance regime recommends a preventive application of approved product/s to control bacteria every six months. However, experience elsewhere in New Zealand suggests that it may be possible to reduce applications for control of these to less than one per year.

Council has identified environmentally friendly, naturally derived, organic products for the control of moss, mould, algae, fungus and bacteria. We are working with artificial field supplier TigerTurf to ensure these organic products are compatible with the turf. Council will consult with Michael Park School administration *prior* to applying any cleaning and hygiene products. We are hopeful that council can benefit from the school's knowledge and experience in the use of organic alternatives in maintaining the cleanliness and hygiene of the school's own property.

#### Can the artificial surface be recycled at the end of its life?

Disposing of used tyres is a big environmental problem with the solution often being burning or landfill. Synthetic turf mixes recycled rubber tyre granules with sand to produce a stabilised, shock-absorbing and user- friendly surface (extending the usefulness of tyres by up to 20 years). When synthetic turf reaches the end of its life, rubber infill can be cleaned and reused; put to another purpose, such as for rubber asphalt; incinerated; used in place of soil to separate landfill layers; or otherwise recycled.

The synthetic turf can be re-used as artificial grass surface for purposes where a shortened fibre length is acceptable. At present the bulk of old artificial turf in New Zealand goes to landfill but technology does exist abroad to recycle it.

#### **Contact for further information**

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