

RWC 2011 THE INFRASTRUCTURE REQUIRED

Rob Fisher

INTRODUCTION

What is the infrastructure required for RWC 2011? The short answer is Eden Park.

When the IRB and Rugby World Cup officials toured New Zealand in mid 2005, they were happy with the infrastructure which they saw for hosting RWC 2011 with one exception, the exception was Eden Park.

Over the past few years there has been the significant upgrading of Jade Stadium, and new stadia developed such as Westpac Trust Stadium in Wellington and Waikato Stadium at Hamilton. However, the officials considered the existing capacity of Eden park at 47000 was too small and the capacity had to be lifted.

However the short answer is not the full answer by any means.

Winning the Bid

But lets go back to November 2005.

17 November 2005 marked a special day in New Zealand rugby history as the IRB announced that New Zealand would in 2011 host the Rugby World Cup for the first time since 1987.

The first formal step in the bid to host RWC 2011 was taken in January 2005, when the NZRU paid a deposit of £25,000 to the IRB's Rugby World Cup Limited – this represented a commitment to a systematic assessment of New Zealand's capacity to host RWC 2011 and kept open the opportunity to make a formal bid. In March, the NZRU and the New Zealand Government agreed the formation of a Joint Bid Office, to work across the full spectrum of central and local government bodies and rugby authorities to investigate the feasibility of a bid by New Zealand.

In early May, the Government pledged its support for the NZRU's proposal and consequently the Joint Bid Office, under the guidance of the RWC 2011 Advisory Board, reporting to the NZRU Board, compiled New Zealand's comprehensive bid for the right to host RWC 2011.

The bid focused on a central theme – "All Rugby" – that communicated the knowledge of a passion for rugby that exists throughout New Zealand. New Zealand could offer capacity crowds in dedicated rugby venues, world-leading rugby broadcasters, a commercially successful tournament based on a

conservative budget, a mature and safe tourism infrastructure and, crucially, an unmatched level of commitment and support from the New Zealand Government. In June, a team of IRB officials visited New Zealand during the DHL New Zealand Lions Series, providing an excellent opportunity to demonstrate the professionalism and enthusiasm that runs through the New Zealand rugby community. Then, throughout October and November NZRU Chairman Jock Hobbs and CEO Chris Moller travelled the world to make face-to-face presentations to every member of the IRB Council.

The bid process culminated in a presentation to the IRB Council by a five-strong New Zealand delegation, including Jock Hobbs, Chris Moller, Prime Minister the Rt Hon Helen Clark, legendary All Blacks lock Colin Meads and 2005 All Blacks captain Tana Umaga. This final presentation drew together several key strands of the New Zealand bid: that New Zealand was a "stadium of four million people", that New Zealand had a proven ability to host major rugby events, and that young players across the globe would aspire to play in a Rugby World Cup in New Zealand.

The New Zealand Government played a critical role in delivering the RWC 2011 tournament. The bid document proposed that RWC 2011 be run by an independent company jointly formed by the NZRU and the New Zealand Government, and included a promise of an entire nation's commitment to the tournament's success. The two partners evenly shared the costs of lodging the bid, with the Government pledging an upfront cash contribution of \$20 million in the event of a

successful outcome as well as agreeing to share the financial commitment to the tournament on the basis of a 2-for-1 split with the NZRU, which also committed initial funding of \$10 million. As emphasised by the Prime Minister's appearance before the IRB Council, New Zealand offered an unequalled level of national and governmental support.

This was a far cry from the terrible days of early 2002 when the NZRU lost the sub-host rights to Rugby World Cup 2003. The Australian Rugby Union did a superb job as sole host, the only glitches being the All Blacks loss to the Wallabies in the semi final followed by the Wallabies loss to England in the final, the first time the William Webb Ellis trophy has left the Southern Hemisphere parish.

I was a member of the NZRU board which lost the sub-host rights which I personally found a particularly galling experience, as David Moffet the then CEO and myself had presented the successful NZRU portion of the joint bid for 2003 and I was at the time a director of Rugby World Cup Limited.

I don't wish to dwell anymore on those dark days except to say there was a rumour going around in mid 2002 that the NZRU marketing department had come up with a Chairman's calendar and I was Mr August, Jock Hobbs was Mr September.

The irony is, that had the NZRU retained the sub-host rights, New Zealand would not now be savouring the opportunity to be the sole host of RWC 2011. Further the successful bid to be co-host in 2003 did not require any upgrading of stadia so RWC 2003 would not have left a legacy in terms of infrastructure.

RWC 2011

So why is it important to host Rugby World Cup 2011?

The NZRU say they will not make money from the event. I understand that, because the only source of revenue for the NZRU are ticket sales minus the many tickets reserved for VVIPs, VIPs, sponsors and sundry alickados. The expense of looking after the twenty teams falls on the NZRU.

All other revenue from TV rights, sponsorships, hospitality and merchandising goes to Rugby World Cup Limited and hence

to the IRB which uses the revenue to fund the game worldwide.

There is no doubt that the hosting of RWC 2011 will be a massive boost for the sport of rugby as it was after the first World Cup in 1987 which was so timely following on from the events of the 1981 Springbok tour and the 1985 Cavaliers tour to South Africa.

It is the chance for the NZRU to shine on the world stage of rugby. But more than that it is to New Zealand's chance to shine on the world stage.

Rugby World Cup is the third largest sporting event in the world measured by television viewing numbers.

While Rugby World Cup is a much smaller event than either the FIFA World Cup or the Summer Olympics, Rugby World Cup pulls a larger world television audience than the Winter Olympics, Wimbledon, Cricket World Cups, Golf tournaments etc.

The TV audience for Rugby World Cup has grown from 17 countries in 1987, 103 in 1991, 124 in 1995 to 215 in 1999, where it has remained ever since. Some 3.5 billion people will watch RWC 2011. The matches will probably mainly be at night, beaming into the important markets of the UK, Europe and South Africa at breakfast time.

Total ticket sales for the 2003 Rugby World Cup in Sydney were in excess of 1.8 million. We can expect similar numbers for 2011. It is a mega event for the country, far bigger than the America's Cup.

- Very conservatively at least 70,000 international visitors will come to NZ to watch RWC. These people will be high spenders. In Melbourne for the 2001 Lions Tour every set of golf clubs in the city sold out in the 3 days before the test match.
- All available accommodation in the major regions will be required.
- A number of Cruise ships are likely to be berthed at Auckland for the knockout phase of the tournament.
- Every available campervan in New Zealand will be required, many more than the 2000 used for the DHL NZ Lions Tour.
- The opportunity is much broader than rugby. In Sydney 78 international conferences as well as

arts and other community activities were aligned with the Olympics.

- The visitors will stay a while. For RWC 2003 international visitors stayed in Australia for around 3 weeks and spent \$6,500 per head.

The total economic activity for RWC 2011 is estimated at \$1.15 billion with a net contribution of over \$500m in additional Gross Domestic Product for the NZ economy. The NZ Government stands to reap additional taxation, PAYE and GST of around \$112m.

Why Major Events matter

But there is much more to the event than the direct expenditure.

Let me quote from the report of the International Review Team prepared for the Metro Auckland Project team.

"The Rugby World Cup 2011 can be an important catalyst for many of the improvements that the Auckland metro Region seeks to make. It will not only be a significant sports festival and tourism event, but could also be the means to achieve much wider developmental and economic outcomes. Sports activities might be coupled with culture, science, or technological expositions. Improvements to transport, hotel, and other visitor infrastructure might serve broader purposes. But most importantly, the RWC can offer Auckland the opportunity to build new markets in high value activities in Higher Education, Media, Science, and Production. A programme to define and create wider benefits for Auckland region should be set up and a dedicated team identified to pursue this aspect of the RWC."

Rugby World Cup 2011 represents one of the important catalysts that the Auckland region can use to drive forwards a more ambitious agenda for change.

Evidence shows that regions can use the hosting of global events to help accelerate their progress towards strategic goals. This can happen in a number of ways.

- Major events bring a short term cyclical boost in terms of visitor economy expenditures which are recycled through wages and profits into the local economy, and through

taxes to the national exchequer (and I have given you these figures).

- Major events bring large numbers of people into a region or country for a short period of time and create the platform for these visits and usually require the hosts to make improvements in capacity that would not otherwise become a priority. Typical is the upgrading of hotel and transportation.
- Major events bring exceptional exposure for the hosting region, both through visitors (many of whom discover the region for the first time) and through media and broadcasting of the events themselves.

These are three direct ways in which major events help to boost the hosting country and region. It is important that Auckland plans for the Rugby World Cup with these direct benefits in mind and that it concentrates on maximising the impact.

The value of hosting events resides in a number of factors that should be well understood:

- They can unify the region around a single common purpose for a fixed period during which other things can get done.
- They can accelerate the delivery of existing goals; it is not a side show.
- They provide moments of high connectivity with global markets.
- They create high visibility and prestige, or a spotlight on weaknesses.
- The reality of deadlines enables normal processes and frustrations to be truncated, and the rules of engagement can be changed/improved for the long term.
- They can make local investment a short term national priority.
- They can foster collaboration inter-regionally.

These comments can apply to all those regions and cities which will be hosting events and that of course includes Christchurch.

Many host cities have used the opportunity to host a mega-event as a means of infrastructure catch-up eg Barcelona, Sydney, Manchester. Let me give you one relevant example, Athens. Athens used the 2004 Olympics to revitalise the transport system;

- 120km of new roads were constructed
- 90km of existing roads were upgraded
- 7.7km of new metro lines were laid
- 23.7km of new train lines were laid
- Train stations were upgraded
- A new airport built

Athens achieved all that in approximately 5 years.

While Athens has achieved a legacy in terms of a magnificent upgrade of transportation infrastructure, my understanding is that number of the stadia purpose built for the Olympics are now underutilised.

That will not be the position in New Zealand with the upgrading of rugby stadia.

Infrastructure Planned

In Dunedin the Carisbrook Trust have announced plans for an upgrade.

In Christchurch Jade Stadium is in for a four-year \$60 million revamp that will increase permanent seating by 7000 to 43,000 for the 2011 Rugby World Cup".

The No 1, No 2 and No 3 stands will be demolished and replaced with an East Stand.

The proposed new three-level stand would be lower than the current Paul Kelly stand and have potential for 10,000 sq m of commercially leased office space.

Concept drawings have not been finalised and are subject to ongoing modifications and change.

Obviously a lot of concrete is going to be required in Christchurch over the four year construction project.

Christchurch Mayor Garry Moore said the new East Stand concept stacked up well and there was a "compelling case" for the project to get community approval.

Mr Moore said just a year after the new stand was built there would be a "payback to the city" of at least the \$60 million estimated redevelopment cost from the spending by thousands of international rugby fans expected for the cup.

That's based on hard data the city has received from a study of the economic impact of last year's (British Lion's) test match at Jade Stadium," he said.

Research showed that 10,000 British Lions fans spent about \$22m on accommodation, restaurants, taxis, supermarkets, visitor attractions and retail shopping.

"If we go ahead and build this East Stand, we could get up to 60,000 supporters visiting Christchurch and Canterbury," Mr Moore said.

"It doesn't take much to do the sums. So really it's a no-brainer. The city has to get behind it."

Mr Moore said research commissioned by the Rugby World Cup Establishment Board the total benefit to the country would be over \$400 million and he wanted Christchurch to get a "decent chunk" of that.

"We don't want it to be Auckland's World Cup."

And of course it isn't Auckland's Rugby World Cup, it is New Zealand's Rugby World Cup, and as I understand it the 48 matches will be spread between 11 venues.

Eden Park

But I did say at the outset that it was a requirement of the successful bid that Eden Park be upgraded.

So what is proposed at Eden Park?

In short, the Panasonic Stand will be demolished and replaced by a two bay extension to the ASB Stand. The Eastern Terraces will be demolished and replaced by a 3 tier uncovered stand.

The South West and South Stands will be demolished and replaced by a new 3 tier South Stand which will accommodate 24,000 people compared to the present 10,000.

The ground capacity will be lifted from 47,000 to 60,000, covered seats will increase from 24,000 to 38,000. Provision has been made to roof the East Stand which would bring the covered seating to approximately 50,000 seats if funding permits. Some 40,000 new seats will be constructed.

The Park precinct will change, with the outer oval being used primarily for a transport hub to accommodate 12,000 people by buses (local travel). 8,000 people can be transported by coach (long distance travel).

Fifteen thousand people will be able to travel to Eden Park by train. A pedestrian over bridge linking the Kingsland station direct to the Park is work being undertaken by the Auckland City Council at a cost of approximately \$11m. Construction will be mainly concrete.

Ontrack are expecting to spend \$30m upgrading the station, double tracking the lines and making improvements to signalling.

The design has been developed by HOK Sport, an internationally renowned firm who have designed Stadia around the world including:

- The Telstra Olympic Stadium Sydney;
- The Beijing Olympic Stadium;
- Suncorp Stadium Brisbane;
- Lansdowne Road Stadium – Dublin
- Upgrade of Melbourne Cricket Ground
- Upgrade of Twickenham

HOK are working with Jasmax, a leading New Zealand architectural firm.

The total investment, excluding the pedestrian bridge and the roof over the East Stand is in the order of \$320m, which as they say in rugby is a big ask. Included in that figure is the sum of \$45m for escalation and contingency.

This will be a superb state of the art stadium but it will not be gold plated.

Comparison of cost per seat	
Eden Park	\$4,635.
Westpac Trust	\$4,413
And Suncorp Stadium	\$4,590.
Brisbane	

By comparison Wembley Stadium comes in at a whopping \$14,695 per seat!

So what does this mean for the concrete industry?

Eden Park Structural Overview

1. Structural Overview (with thanks to Beca Carter)

Various material and framing options have been developed and evaluated. One of these options comprises a predominantly reinforced concrete frame structure supporting the 3 tier seating bowl, concourses, suites and function rooms and various back of house facilities.

This concrete frame structure supports a steel frame cantilever roof. The cladding will be ETFE or similar polycarbon material to give a "translucent" appearance.

The majority of the Eden Park Redevelopment site is underlain with variable volcanic material with a founding strata of predominantly basalt rock, hence the foundations for the proposed new stands will be mainly shallow reinforced concrete pad footings.

The reinforced concrete frame is designed to derive its lateral stability, and hence resistance to seismic loads, through a combination of moment resisting frames and reinforced concrete shear walls.

It is envisaged that a significant portion of the structure will be formed in precast concrete, allowing elements to be fabricated in factory controlled conditions and delivered to site for just-in-time installation. The following elements have been identified as appropriate for precasting.

- Primary beams of the structural frame
- Floor slab units
- Bleacher units
- Staircases
- Elements of cladding

The benefits of precasting are many but include a higher degree of construction quality, easing on site congestion, minimising on site activity, and reducing temporary works, wet trade and onsite labour.

The external concourse areas provide vertical separation between at grade transportation modes and pedestrians entering the stadium at the level 3 concourse. An option being considered for the external concourse utilises a reinforced concrete frame with precast concrete floor units.

2. Facts and figures

The following data gives an approximate estimate of the scale of the development in terms of material usage:

The following data are approximately volumes/areas of concrete used in the proposed new grandstands for the scheme option described above.

Volume of concrete in sub-structure including foundations and ground	2500 m ³
Area of ground bearing slab	16,000 m ²

Area of precast concrete floors	30,000 m ²
Area of precast concrete bleachers	16,000 m ²
Volume of concrete in shear walls	2,000 m ²

That is a lot of sand and cement.

Even more sand and cement are going to be required for new infrastructure and upgrades which will happen or be advanced because of RWC2011. A good example is Transit which has announced that construction of the Manukau Harbour crossing has been brought forward with the Mangere Bridge duplication and motorway widening now planned for completion prior to RWC2011. This will significantly improve access between the City and the Airport.

Auckland City have a taskforce considering improvements to public places, streetscapes and the like, all geared to present the city in the best possible light for the international visitors and world television audiences.

Conclusion

The necessary application for resource consent was filed on 9 August, with a hearing before Commissioners set for November this year.

Construction of the ASB Stand Extension will commence in January 2007, with resource consent and funding already in place.

It is proposed that the construction of the New South Stand will get underway in December 2007, with work on the new East Stand to commence in July 2009.

The objective is to complete all construction in time for the Air New Zealand Cup of 2010 which is some 192 weeks away.

Some people have asked why we have not found a greenfields site? Quite simply, 9 ha sites, centrally located to the city, with good access to rail, and major traffic arterials do not exist. Plus the ASB Stand is only six years old and has a replacement cost of \$155m, so Eden Park puts the site, the ASB and West Stands into the development at a cost saving of around \$250m.

Unlike other major stadia in New Zealand and Australia, the taxman and ratepayers of the Auckland Region have enjoyed all the benefits of sport at Eden Park including economic benefits, without ever having had to contribute. Other than a loan from the Auckland City

Council at commercial rates. Eden Park has never had any substantive funding from ratepayers yet, by way of example, the DHL Lions tour last year, of which there were two games in Auckland, delivered an additional \$53m to the regional economy.

Auckland has a regional population of 1.3m and is growing rapidly. By 2016 the Auckland population will have grown by approximately another 340,000 people, (the population of Christchurch).

Auckland can certainly sustain a world class stadium with a capacity for 60,000 fans and the ability to add a further 10,000 by replacing the West Stand at some future time.

Internationally city-regions have used major events to revolutionise their performance, by making strategic investments that are accelerated by the event and bring long term gain (a legacy).

Five years is a short time to plan and execute the changes in attitude, action instead of inertia, collaboration rather than competition, thinking globally and nationally rather than provincially.

International examples give confidence that what needs to be done can be done. I have referred to Athens, Beijing and Sydney Olympics. RWC 2003 brought in \$800m in economic benefit for Australia and the magnificent Suncorp Stadium.

The 2006 Commonwealth Games saw the MCG redeveloped at an investment of \$380m.

RWC 2011 presents a unique opportunity to build a stadium that will benefit Auckland and New Zealand long after RWC 2011 and Cricket World Cup 2015.