1. INTRODUCTION

On the 9th November 2007 at 12.45pm the Commonwealth Games Federation announced that Glasgow had been successful in its bid to host the 20th Commonwealth Games in 2014. This success was the culmination of three years of preparation and planning, and the decision to award the Games to Glasgow was a real achievement for the city and Scotland as a whole. This was a moment to be savoured and everyone connected with the bid was justifiably proud of the achievement. However, the celebrations are over and now the hard work begins as we move towards 2014 when the promises made in the Bid Document will have to be delivered.

This paper briefly outlines the Bid process, where transport sat within that process, the transport strategy which has been developed for the Games and the way forward over the next six years. Working with our Games Delivery Partners, Glasgow aims to develop a successful transport plan and ultimately a successful transport operation at Games time in 2014.

2.0 THE BID PHASE

The Bid Phase really started in 2004, when the Commonwealth Games Council for Scotland determined it would be bidding for the Commonwealth Games in 2014, and invited all local authorities in Scotland to bid to host the Games. Glasgow and Edinburgh both presented strong bids and ultimately Glasgow was chosen as the City to go forward as Scotland’s representative. Strong support was received by the Scottish Government and a public sector ‘war chest’ of £5m was provided to develop the Bid. With a candidate city selected and funding in place, the next stage was to begin the detailed planning of the Bid which would culminate in a final decision on 9th November 2007.

2.1 Key Bid Activities

Glasgow, Abuja (Nigeria) and Halifax (Canada) were the three cities who initially lodged an interest in hosting the Games. Halifax eventually dropped out of the race leaving Glasgow and Abuja as sole contestants.

Of key importance to taking the Glasgow/Scotland Bid forward was the establishment of a tripartite partnership between the Commonwealth Games Council for Scotland, Glasgow City Council and the Scottish Government. This group provided strategic leadership in development of the Bid, and were supported by the Glasgow 2014 Bid Team.
There were three main elements to the Bid process and transport played a major role in each of them.

2.1.1 The Candidate City File

The ‘Candidate City File’ or Bid document was a highly structured, detailed questionnaire covering 16 different themes (including transport) and 240 pages. This was the principal tool which was used to evaluate candidature and analyse technical characteristics. The transport section ran to 25 pages and covered questions on existing and proposed transport infrastructure, public transport provision, Games transport proposals, National, Regional and Local Transport Strategies, and governance.

2.1.2 The Evaluation Commission and Report

The Commonwealth Games Federation appointed an Evaluation Commission to study the technical merits of each Bid. The commission inspected all sites and venues proposed for use during the Games and received presentations on the various themes, with subsequent detailed question and answer sessions. A detailed Evaluation Report was issued at the end of this process, and this report praised Glasgow’s bid stating:

“Glasgow has demonstrated the ability to stage the 2014 Commonwealth Games to a standard which would continue to enhance the image and prestige of the Games, delivering appropriate services to all constituents and stakeholders with a minimum risk of failure”.

2.1.3 Inward Visits

After submission of the bid, each of the 71 Commonwealth Countries had the opportunity to visit Glasgow to view the City and visit the venues. The visiting countries were split into groups broadly along regional boundaries (Europe, Oceania, Asia, Caribbean & Americas, Africa, and two ‘catch all’ visits). These visits took place over the summer months of 2007, and required meticulous planning. The Transport team was heavily involved from arrival to departure. From collection at the airport to organised tours of the venues and transport to social functions, great care was taken to ensure that delegates were moved around the city quickly and comfortably at all times, giving the best possible impression of the City and its transport credentials.

Central to the success of each of these Bid stages was meticulous planning and good team working. The hard work and long hours paid its dividends when Glasgow was finally announced as the Host City.

The remainder of this paper explains in more detail the transport strategy which was developed at Bid stage and how Glasgow City Council intend to continue its development through to 2014 and deliver it at Games time.
3.0 THE GLASGOW 2014 TRANSPORT STRATEGY

The transport strategy was developed by the Bid Team’s 2014 Transport Strategy Team comprising of key transport stakeholders (including Glasgow City Council, Transport Scotland, Strathclyde Partnership for Transport, Strathclyde Police and the Scottish Executive, with support from Glasgow’s major bus and train operators and BAA). In addition, Games Consultants and specialist advisors were used where necessary. Also key to developing the strategy was learning from other Games such as Manchester 2002 and Melbourne 2006. We are also fortunate to have the Olympics in London in 2012 and they have been very helpful in sharing their experiences with us.

3.1 The Transport Plan

Glasgow is one of Europe’s major cities - an international destination with excellent air, road and rail links. After decades of investment, Glasgow has one of the most extensive public transport systems in the United Kingdom and a comprehensive road network which together provide a strong foundation for an efficient and effective transport delivery plan for the Games. By 2014, the public transport and road network that will serve the Games will have been enhanced by an already committed investment programme totalling over £2bn that will include the completion of major road and rail links including the Glasgow Airport Rail Link.

Recognising that safe and efficient transport for the Games Family, spectators and Games workforce is crucial for a successful Games, Glasgow City Council undertook to develop a draft Transport Plan covering all aspects of Games related transport. The Transport Plan was intended to be “low risk” being founded on a transport strategy that utilises committed schemes, robust transport modelling and consistently deliverable journey times.

3.2 The Transport Challenge

The key transport challenge is to ensure that Glasgow will provide effective safe, secure and reliable transport to serve the Games Family (athletes official and VIP’s), the Games workforce and spectators whilst continuing to ensure that the transport needs of Glasgow’s residents, businesses and visitors continue to be met efficiently.

Development and implementation of the Games Transport Plan will ensure that Glasgow’s transport network is equal to this challenge, and 3 key objectives were identified which provide the focus for the Transport Plan, these are:

• Deliver safe, secure and reliable transport for the Games Family
• Ensure all Spectators arrive at venues by a sustainable mode of transport
• Keep Glasgow moving during the Games

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4. GLASGOW’S TRANSPORT NETWORK ‘2008’

Glasgow is a City with a diverse range of functions and facilities creating a wide range of transport demands. Glasgow is one of Europe’s most visited cities, welcoming around 2.8 million overseas tourists and conference delegates each year. Glasgow is central in a travel to work area covering around 1.8 million people with fifty percent of people who work in the City commuting daily from outwith its boundaries.

4.1 Integrated Transport System

To meet this demand, Glasgow boasts an integrated transport system in developed following decades of investment in the transport network. As well as a comprehensive bus network, Glasgow has 59 rail stations serving 44 million passengers per year, and a subway serving 13 million passengers per year. An average of nearly 1 million public transport trips are made every day throughout the city.

4.2 Public Transport Culture

Not only has Glasgow a comprehensive public transport system but it also enjoys a culture of public transport use that results in 29% of all motorised journeys within the city being made on buses, trains or the underground – a figure that is appreciably higher than the Scottish average. Transport mode share in Glasgow is shown in figure 4.1.

Glasgow’s public transport system has helped to support car ownership levels within Glasgow that are 23% lower than the rest of Scotland and 36% lower than the rest of the UK.

Figure 4.1: Transport Share by Mode

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4.3 Seasonal Variations Support the Games

The Games will be held during the summer months when traffic levels in Glasgow are 11% lower than the average for the rest of the year (Refer to Figure 4.2). This reduction in traffic will help ensure road space is available for increased spectator transport and to allow implementation of Games Lanes. Public Transport trips are also reduced during this period, being 14% lower than average, and 25% lower than peak usage.

Figure 4.2: Seasonal Variations in Transport Demand
4.4 Existing Infrastructure

Key elements of existing infrastructure that will play an integral part in the successful delivery of the Games include:

- An established strategic motorway and major road network, comprising 43km of trunk roads and 1700 km of non-trunk roads.
- Three international airports – Glasgow International Airport, Glasgow Prestwick International Airport and Edinburgh Airport.
- The Glasgow Subway (Underground).
- A network of Quality Bus Corridors.
- A rail network that links Glasgow with the rest of Scotland, the UK and wider Europe.
- An extensive “Green Network” of cycling and walking routes incorporating sections of the National Cycle Network.
- Five sea ports connecting Glasgow to the Scottish Islands and other UK and European ports.

5.0 GLASGOW’S TRANSPORT NETWORK ‘2014’

The existing transport network could go a long way to serving the Games Family, Games workforce and spectators in 2014. However, over the next 5 years Glasgow City Council, Transport Scotland and Strathclyde Partnership for Transport will be working together to deliver a planned £2bn programme of investment with the intention of making Glasgow one of the most accessible cities in Europe (refer to figure 5.1).

It is worth noting that this £2bn programme of investment was not dependent on Glasgow being awarded the 2014 Commonwealth Games.

5.1 Planned Infrastructure

Integral to Glasgow’s continued vitality is the delivery of a planned investment programme of road and rail infrastructure enhancements funded by a combination of public and private sector finance. Key projects are:

- M74 Motorway Completion
- East End Regeneration Route
- M80 Stepps to Haggs
- M8 Baillieston to Newhouse
- Glasgow Airport Rail Link (GARL)
- Airdrie to Bathgate Rail Link

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Figure 5.1: Glasgow's Transport Network “2014”
5.2 Public Transport Infrastructure

A total of eight Quality Bus Routes have already been implemented in Glasgow and have delivered improved bus journey times and journey time reliability through demand responsive traffic signal control and bus priority measures such as bus lanes. Further investment by Glasgow City Council in Quality Bus Corridors is proposed, with plans still being drawn up. The provision of further Quality Bus Corridors will take cognisance of Games Venues particularly the Commonwealth Games Village and will leave a legacy for Glasgow.

5.3 Other Planned Infrastructure

Although £2bn of guaranteed investment is already programmed for the next five years it is not intended to stop there. Glasgow City Council, BAA and other private investors are currently developing a range of other infrastructure schemes. These include:

- **Airport Developments:**
  - Glasgow International Airport Master Plan
  - Edinburgh Airport Master Plan
- **Bus Rapid Transit (Clyde Fastlink®) serving the Clyde Corridor**
- **Extension of the Green Network**

5.4 Extension of the Green Network

During the next 7 years Glasgow City Council have programmed further development of the existing 118km long Glasgow Cycle Network. Extension and improvement of the network will be prioritised to ensure that all Games venues within Glasgow are linked by a cycle and walking route. This will ensure that these modes of transport are a viable option for spectators during the Games whilst leaving a sustainable transport legacy to the people of Glasgow.

5.6 Keeping Glasgow Moving

Building on the already reduced traffic and public transport demand during the summer months, an effective communication and public information strategy can help further reduce background travel demand. Businesses will be encouraged to adopt measures such as flexible working hours, home working and altered delivery patterns. Detailed, well consulted and planned traffic management arrangements will be put in place to ensure that the City keeps moving whilst accommodating the demands placed on it by the Games. The fact that venue 'spectator load times' will lie outwith the traditional commuter peaks will also ensure that the most effective use of transport infrastructure is achieved.

Glasgow has an excellent track record in coping with major events and ensuring it does not adversely impact normal business in the city. It has welcomed two major European football finals to the city in the last five years.
A demonstration of the city’s ability to cope with large events occurred in 2006 when over the space of a single weekend Hampden hosted two consecutive large rock concert events, Celtic Park hosted the Scotland v Faroe Islands European Championship qualifier and SECC hosted 4000 delegates to a major international conference. This coincided with normally busy weekend leisure activities. This gives a feel for the challenge facing the city and its transport capabilities during Games time. The challenge is that this high level of activity will not be confined to a single weekend, but will extend over an eleven day period.

6. GAMES FAMILY TRANSPORT

The Games Family are the core group sitting at the very heart of the Games and consist of a number of different client groups including athletes and team officials, technical officials, dignitaries, media and sponsors. Glasgow will ensure that the highest priority will be given to planning and delivering safe, reliable and efficient transport services for the accredited Games Family. The approach to delivering short, punctual and reliable journeys for the Games Family has been developed with reference to operational experience in organising high profile events and is founded on the proactive management of traffic, supported by tried and tested protocols.

For Games Family Transport, our main objectives are to:

- Ensure that the Transport Plan meets the needs of each client group;
- Provide separate fleets and organisational arrangements for each client group;
- Deliver a robust Games Route Network, incorporating dedicated lanes and traffic control measures, that ensures minimum and reliable journey times are achieved;
- Keep routes free of congestion through holding the Games during school holidays and by managing background business and overall travel demand; and,
- Ensure that resilience and flexibility is built in throughout the Transport Delivery Plan.

Each Games Family client group will be provided with their own individual transportation requirements and resources will be planned accordingly. A large, dedicated, fleet of vehicles will be available to ensure that the relevant service levels for every client will be achieved.

6.1 Games Route Network

Glasgow has developed a Transport Plan for the Games traffic that is founded on journey time reliability and a core Games Route Network dedicated to Games Family vehicles. The currently proposed Games Route Network is shown in figure 6.1.
Figure 6.1 - GAMES ROUTE NETWORK
The following statements are taken directly from the bid document:

“90% of athletes will be less than 20 minutes journey time from their event”

“48% of journey times will be less than 10 minutes”

“90% of athletes will never be more than 25 minutes from their training venue”

The Games Route Network will link the Commonwealth Games Village with each of the Games venues as well as the Press and Broadcast centres and main hotel area. This will ensure the Games Family arrives at their destination as promptly as possible. The network will comprise dedicated Games Lanes restricted to use by Games Family accredited vehicles for the duration of the Games. Simple clear signage will be necessary to guide the Games family around the city. The Games Route Network will be supported by a Parliamentary Games Bill and will be based on:

- Rigorous modelling and live testing prior to the Games;
- Lane enforcement and banning of parking;
- Diversion of general traffic;
- Priority for Games vehicles through the use of a vehicle detection system which will provide “hurry calls” at each junction;
- Extensive network monitoring through roadside traffic CCTV cameras;
- A moratorium on non-emergency roadworks and street works, and
- Breakdown response units.

Typical athletes service details are shown in Figure 6.2.

Figure 6.2 – Typical Athletes service details
6.2 Athletes & Technical Officials

Transport Services for athletes and officials will be provided by a fleet of 260 buses which will operate 3 weeks in advance of the opening ceremony and service all training and competition venues. Most routes will operate a twenty minute service frequency.

6.3 Dignitaries, Games Officials, VIPs and Guests

The transport services for this key client group will be provided primarily by a car based fleet and allocated depending on accreditation level. The vehicle fleet, comprising circa 1100 vehicles in total, will be available to clients from the opening to the closing of the Commonwealth Family accommodation. They will also have access to free public transport throughout Glasgow. 800 cars will be provided with drivers recruited from volunteer workers.

6.4 Media and Broadcasting

The media and broadcasting scheduled services will begin operation 2 weeks before the commencement of the Games and terminate 3 days after the conclusion. The services are designed to meet the requirement to move all media clients and their equipment from their accommodation to the media transport hub and then onwards to the relevant venues. In addition to the scheduled services operating between the key media and broadcasting areas, a self drive vehicle pool will be available for hire to media accredited clients.

6.4.1 Media Transport

The media transport hub is situated adjacent to the MPC/IBC (Media and Press centre) and will provide the base for all media transport operations (see figure 6.3). The transport hub will provide both drop off and pick up points for media accommodation and provide an effective service to the required venues.

Figure 6.3 – MPC/IBC and Media Transport Mall
All media accredited clients will be provided with free public transport across Glasgow, and it should be noted that the SECC rail station provides excellent access to the main venues.

6.5 Sponsors

A special fleet of luxury coaches will be used to transport Sponsors and their guests. They will operate from the main hospitality areas directly to the venues.

7. SPECTATOR AND GAMES WORKFORCE TRANSPORT

Glasgow has a comprehensive public transport and road network that, together with planned improvements by 2014, will deliver a safe and efficient transport network for spectators and the Games workforce. Glasgow’s public transport network which will be worked to its full capacity, supplemented with Park & Ride and City Centre shuttle services, will ensure that all spectators and Games workforce will be delivered to all venues efficiently and safely. Our focused objectives for Spectator and Games Workforce transport are to:

- Deliver 100% spectator travel by all modes of public transport, Park & Ride, cycling and walking;
- Deliver worldwide accessibility to the Games through the use of three International airports within 60 minutes of the City Centre;
- Deliver excellent public transport for mobility–impaired people;
- Provide maximum reliable service levels from existing and planned infrastructure;
- Provide multiple access and egress to all venues;
- Manage spectators’ routes and time of travel by origin of trip, and
- Deploy integrated event and travel ticketing to encourage spectators to travel by public transport.

There will be no parking at venues for spectators and each spectator ticket will include free travel within the Glasgow area on all trains, the subway and all local buses on the day of the event. A comprehensive information campaign, linked to ticketing, will advise spectators of the best ways of reaching each venue. All members of the Games Workforce will also be given free access to the entire public transport network as well as the City Centre shuttles and Park & Ride services. Glasgow has a culture of spectators using public transport for major sporting events and it is the intention to further reinforce this, leaving a lasting legacy of increased usage of public transport to access events.

Parking and access controls, enforced through the Games Bill, will be strictly enforced on streets surrounding venues to ensure safe and reliable access for Games Family accredited vehicles. This will also ensure that the areas around the venues are a safer, pleasant environment for pedestrians and cyclists, and aid in the delivery of Low Emission Zones around the venues.
7.1 Spectator Access Model (SAM)

In order to allow us to test the capacity of the transport systems to cope with the demands placed on it, we have developed a profile of daily spectator demand based on the venue capacity and sports programme information currently available. This is shown in Figure 7.1. A spreadsheet model has been developed in close cooperation with Transport Scotland, SPT and the major bus operator, First. The model assesses the capacity of the public transport network against the requirements of each venue. The model can be used to identify the most appropriate forms of public transport available for accessing each venue and where necessary estimates the number of Park and Ride and additional City Centre Shuttle Buses required. Figure 7.2 shows output from SAM.

The Spectator Access Model underlines the confidence the city has in its public transport network and its ability to cope with the additional demands during Games Time. It will allow Glasgow to plan the spectator and Games workforce transport requirements progressively and dynamically in the years leading up to the Games.

Based on a clear understanding of the Games Family fleet operations and spectator transport needs Glasgow will provide efficient transport operations at each competition and non competition venue.

![Daily Spectator Access Demand](image-url)
8.0 DELIVERY

As discussed earlier in this paper a tripartite partnership was established between the Commonwealth Games Council for Scotland, Glasgow City Council and the Scottish Government for the Bid, this partnership will continue in taking the Games forward, and will work with the incoming Games Organising Committee to deliver the Games in 2014.

In terms of delivery of transport for Glasgow 2014 it is important to note that one of the key requirements the Games Bill currently passing through the Scottish Parliament is that the Organising Committee should develop a Transport Plan and fully consult with all relevant bodies. Figure 8.1 demonstrates this process.
The Organising Committee will be responsible for delivery of some of the Games related infrastructure and many of the services, but the Scottish Government, Glasgow City Council and other Partner agencies and bodies will also have a responsibility for delivering infrastructure and services. While many of these are already planned to proceed, they will play a key role in delivering a successful Games. A perfect example of this is the construction of the M74, which is fundamental to a successful Games transport strategy, and is being constructed by a partnership of Transport Scotland, Glasgow City Council, Renfrewshire Council and South Lanarkshire Council. There are many other such examples such as the construction of the New Indoor Sports Arena and Velodrome in the East End which was already proposed but will provide a magnificent venue for the Games.

It is also incumbent on all All Games Partners to review their development plans, spending proposals and priorities between now and 2014 and ensure that best use is made of those resources to make Glasgow 2014 a resounding success. On the transport front issues such as the look and feel of routes to venues need to be addressed, possibility for further permanent improvements to the Public Transport system must be explored, and the potential for a real shift in using the Games as a catalyst for promoting active travel must be fully exploited.

9. SUMMARY

Glasgow 2014 is the largest multi sport event Scotland could ever host and is a once in a lifetime opportunity to showcase Glasgow and Scotland. We must grasp that opportunity, and in terms of transport provision it is important that visitors to Glasgow, whether they are athletes, officials, VIP’s or spectators have a welcoming, efficient, positive experience. It is equally important that the citizens of Glasgow are able to go about their everyday business whilst the Games are being held.
It is also important that we maximise this opportunity to leave behind a transport legacy which will last well beyond 2014, whether it be in the provision of infrastructure, promotion of public transport or encouraging people to walk and cycle more. It is therefore important that everyone in the transport world pulls together, and aids in the development and delivery of a successful Glasgow 2014 Transport Plan.