



# **Land Use and Infrastructure Investments by Olympic Host Cities:**

*Legacy Projects for Long-term Economic Benefits.*

October 1, 2009

By: Peter J. Kindel AIA ASLA  
President; [Topografis A Professional Corporation](#)

Scott Watkins  
Senior Consultant; [Anderson Economic Group, LLC](#)

Andrew Hasdal  
Research Intern; [Topografis A Professional Corporation](#)

## Executive Summary

On Friday, October 2nd, the International Olympic Committee (IOC) will select a host city for the 2016 Summer Games. The City of Chicago has submitted an extensive and thoughtful bid book that proposes a compact games centered on the lakefront and embracing the diversity of the city. Many cities would welcome the opportunity to achieve global recognition, and while the Olympics accelerate that opportunity, not every city is well-equipped to host the Games. Chicago has that necessary aptitude to be a host city and can take advantage of the resulting benefits. However, to gain the optimum benefit from the 2016 Summer Olympics, Chicago must use the Games as an investment catalyst that will spearhead long-term improvements in infrastructure, new developments, and city amenities and services.

Chicago 2016's bid book includes a thorough budget for hosting the Games. However, it does not elaborate on costs, or revenue sources, associated with improvements to municipal infrastructure, such as roadways, airports, public transportation, public spaces, and telecommunications. These projects are simply said to occur as part of the city's "natural growth." Simply following the path of natural growth, however, would result on a significant missed opportunity to fully leverage the Olympic Games.

In this paper we address the issue of long-term land-use and infrastructure projects (legacy projects) that Olympic host cities commonly undertake, and the potential economic benefit of these legacy projects. This builds upon another recently released paper on the topic of the Olympics and their economic impacts—*The Likely Economic Impact of a Chicago 2016 Summer Olympics*—that was authored by one of this paper's co-authors.<sup>1</sup> That paper focused solely on the economic impacts that the games, as presented in Chicago 2016's bid book, would likely have on the city and county. This paper goes a step further and discusses strategies for maximizing public investments so that projects commissioned prior to the Olympics create long-running economic value within the city.

This work has not been commissioned by any party, and is being prepared solely for the purpose of contributing further information to the Olympic planning effort. The authors have extensive expertise in urban planning, land use, economic development, and design, as well as an affinity for the City of Chicago, and hope their shared expertise can contribute to a successfully hosting of a summer games in 2016.

**Summary of Findings.** Our work included a careful review of the Chicago 2016 Bid Book and other materials publicly released by the group, as well as reviews of material about the economic impacts and development projects from past Olympic Games. In doing so we arrived at the following key findings:

1. While the budget in Chicago 2016's bid book appears sound, there is insufficient information included to carefully assess the long-term infrastructure benefits hosting the games may provide for Chicago's citizens. The current Chicago 2016 Olympic budget suggests potential natural growth projects, but does not identify specific projects, or related costs.
2. By analyzing previous Olympic Games we can identify best practices for infrastructure and development projects related to Olympic Games. Doing so

---

<sup>1</sup> Anderson, Watkins. ["The Likely Economic Impact of a Chicago 2016 Summer Olympics. Available at http://www.AndersonEconomicGroup.com.](http://www.AndersonEconomicGroup.com)

illustrates that legacy investments of benefit to Olympic host cities can be strategically implemented, but if they are not, the investments will not provide lasting value, or an economic return, to the host. Projects that are not carefully planned can drain otherwise valuable resources and result in missed opportunities for economic development.

3. To achieve meaningful long-term legacies, host city Olympic investments must:
  - a. Be complementary to other long-term planning goals of the city;
  - b. Address underutilized areas of the city;
  - c. Avoid single-use permanent facilities; and
  - d. Focus on infrastructure improvements of lasting value to the general public and the business community.
4. Olympic host cities should strategically direct already appropriated funds for infrastructure improvements, and leverage other funding opportunities, to commission projects that make highest and best use of available space to provide non-athletic legacy projects and prototypes that will serve the general citizenry, create a heightened national and international image, enhance the livability of community, and contribute to long-term economic benefits for the host.

Doing so protects residents and businesses from unnecessary tax increases, and appropriates their tax dollars to projects that bring lasting benefits, address actual needs, and facilitate a successful hosting of the Olympic Games.

**Recommendation:** Based on these findings we present the following recommendation specific to Chicago and the 2016 Summer Olympics.

The city should consider specific legacy projects in six areas: 1) Transit, 2) Roadways, 3) Neighborhoods, 4) Parks, 5) Lakefront, and 6) Airport. With a budget of as little as \$500 million for these combined projects, much of which may be obtained from non-local sources or already dedicated tax revenues, the city can provide the citizens of Chicago with specific and identifiable improvements as the result of the Games without increasing taxes. These projects will result in an improved business environment and quality-of life for Chicago residents, creating lasting Olympic legacies that are keystones to generating any long-term economic gains associated with hosting the games.

## **Section 1: Investment and Development Strategies of Past Olympic Host Cities**

When assessing Olympic investments, it is fortunate that we have specific precedents for analysis. The most beneficial way to predict the outcome of Olympic investments is to analyze those that have gone before. A future host city should look to mirror the successes of previous hosts, and just as importantly, avoid their missteps.

In the following section, the aspirations and investments of five recent Olympic host cities are summarized, with a general conclusion on the relative successes of those investments. The goal of hosting the Olympics is to create positive impacts upon the city while leaving a global legacy for years to come. These positive impacts are a result of premeditated objectives, proper spending, and consistency with a city's long-term plans.

Without such positive impacts, it may be argued that the Olympic Games are a financial detriment to host cities. However, a properly planned, thoughtfully executed Olympic

Games can provide hosts with far-reaching effects that otherwise may not have been possible to pursue.

**Barcelona 1992.** The 1992 Summer Olympics in Barcelona are perhaps the best model for the Chicago Games. A waterfront city, Barcelona sought to take advantage of its environmental appeal. They also saw the Games as a way to strengthen their civic framework in the underdeveloped areas of the city. Overall, they have become a model Olympics in economic, physical, social, and planning terms.

When it was announced that Barcelona would host the 1992 Summer Games, significant changes were initiated throughout the city. Unemployment dropped and the construction and housing industry had a revival. Investment in the city rose and these trends continued post-1992 as the city was able to maintain the growth spurred from hosting the Olympics. The city achieved the urban transformation it desired in community development, infrastructure improvements, and overall attractiveness of the city.

This was possible because, when Barcelona officials set their objectives for the Games, they built with regards to long-term planning goals. By selecting four areas throughout the city that needed new development and improved public infrastructure, they were able to use the 1992 Games as a catalyst for future growth consistent with their physical improvement program. The city built ring roads that reduced traffic congestion and the El Prat airport was upgraded and expanded with the help of the Olympics. Additionally, they made vast improvements to their public parks and lakefront. The construction of Olympic venues in the blighted neighborhood of *Poblenou* gave Barcelona great access to the sea. Barcelona took advantage of hosting the Olympics by using the investment that comes with the Games to achieve their previously established redevelopment goals.

*Key Takeaway: Use Olympic investment to complete currently-planned infrastructure and development projects.*

**Atlanta 1996.** The Atlanta Games of 1996 were significant, as they marked the 100-year anniversary of the modern Olympic Games. It was also a great chance for Atlanta to achieve global recognition. Compared with other American cities such as New York, Los Angeles, and Chicago, Atlanta is smaller in terms of population and economic activity. The Games were seen as an opportunity for Atlanta to establish a higher international profile.

Atlanta aimed to improve their transportation, provide investment in disadvantaged neighborhoods, and beautify their city. There were significant impacts on construction and infrastructure within the city such as the Centennial Olympic Park. However, even with significant improvements, there were other hurdles to overcome in the execution of the Games. European Olympic officials reported that the Games were overcrowded, transportation was not convenient, and commercialization tarnished the Games' integrity. With cost overruns and miscommunication with Olympic media, Atlanta did not create their desired impression. Foreign journalists were quoted saying the city was "physically dull" and the land uses throughout seemed "jumbled."

In terms of building improvements, there were significant additions to the city. These included the Olympic Stadium, which became the new ballpark for the Atlanta Braves; multiple sports venues; and the Olympic Village, which was converted to student housing. Poorer areas were not significantly addressed, as most of the neighborhood improvement monies were put toward landscaping upgrades and beautifying Olympic corridors.

The long-term impact of those upgrades was negligible. There was hope for a spark in post-Games construction, but that hope was never realized. Although Atlanta received global exposure, the long-term economic impact was minimal.

*Key Takeaway: Identify substantive neighborhood improvements to ensure long-term community legacies.*

**Sydney 2000.** In the years leading up to the 2000 Games, the preparations by the city of Sydney were not as successful as the country had hoped. Once the Games were over, however, most were pleased with the outcome in terms of the city's legacy and overall improvements. Before the Games occurred there were concerns over the transportation network and congestion, as well as executing the logistics of the actual Olympic Games. These problems were successfully addressed, mitigating citizen apprehension.

Similarly to other host cities, the Olympic Games saw the creation of some world-class facilities in and around Sydney, such as the Sydney International Aquatic Centre and the Dunc Gray Velodrome. During construction it was decided that the Olympic Stadium and Olympic Village would be located several miles west of the hub of the city. This location was inconsistent with growth plans since Homebush Bay, the site of the Olympic Village, is 30 kilometers away from Sydney's Central Business District (CBD), and Auburn, the district it was located in, was excluded from much of the planning of a large tract of land in their area. Therefore, since the city did not build well in accordance with most future plans, it has proven difficult for city officials to find practical uses for those developments. Nevertheless, the city took great pride in hosting the Games and saw it as an opportunity to achieve worldwide recognition and build a lasting legacy – which made it worthwhile to them.

*Key Takeaway: Build Olympic investments such that they are consistent with other long-term growth plans.*

**Athens 2004.** Athens, like other Olympic cities, planned to use the Games as a catalyst for improvements in infrastructure, development and city services. Officials viewed the Games as a method to advance the city's infrastructure prior to the Games in 2004. Mayor Dora Bakoyannis hoped the Games would improve the city's attractiveness, architectural quality, transportation efficiency, and livability. The last goal would be addressed through landscape upgrades, park additions and underground parking that would alleviate the city's parking issues.

The cost of the Athens Games turned out to be almost double the original forecast. The total was estimated at €8.954 billion – significantly above the original forecast of €4.5 billion. Although €1.08 billion of that can be traced to added security due to terrorism concerns stemming from the September 11<sup>th</sup> attacks, this oversight is one of the reasons Athens is considered a less successful Olympiad.

Cost overruns can be traced to the state-of-the-art physical improvements the city made in preparation for the Games, such as the modern Eleftherios Venizelos International Airport and the new light rail system. While some improvements were required due to aging services, those costs could have been minimized. Instead of using temporary facilities, Athens chose to build expensive permanent stadiums and venues that added to the overall cost.

Currently, some venues have unlikely occupants and are underutilized due to poor post-Games planning. The Galatsi Olympic Hall, site of the table tennis and rhythmic gymnastics events, is one of several venues sold to Hellenic Olympic Properties who plan to turn it into a shopping mall and entertainment center. Perhaps if these state-of-the-art improvements were scaled back in a way that did not negatively affect the Olympics, or if the planning had been more strategic, the Athens Games would be considered more of a success.

*Key Takeaway: Avoid specialized infrastructure investment that is inconsistent with other planned infrastructure improvements.*

**Beijing 2008.** Beijing's hope, through the Olympics, was to be recognized among other nearby elite cities including Tokyo, Hong Kong and Singapore. The city was attempting to overcome significant environmental challenges, and they saw the Games as a way to improve air and water quality, waste disposal and clean energy development. These developments included plans to expand their public transportation systems and convert the city buses to a cleaner, more efficient use of energy. They viewed the Games as a showcase for new innovations and technologies for environmental improvements.

The Beijing Games have been over for a year, but impacts can already be seen on a daily basis. The transportation network improvements, including doubling the size of the metro-subway system and adding a terminal to Beijing's capital airport, have been great additions for millions of citizens of the city. The National Stadium, or Bird's Nest, is an impressive feat of architecture, as is the natatorium, nicknamed the Water Cube. Unfortunately, though it has been one year since the Games, the Bird's Nest is an example of how some sporting venues are underutilized once the Olympics have ended. Chicago's proposal of a temporary stadium that will be partially removed and used for other functions may indicate appropriate foresight by Chicago.

While the effects of the Games are too recent to objectively assess, the city aimed to integrate investments and infrastructure improvements into the larger economic picture. This success ultimately depends on the usefulness of these investments in the coming years.

*Key Takeaway: Avoid expensive permanent facilities unless adequate post-Games use is ensured.*

## **Section 2: Chicago 2016: Developing Infrastructure to Host the World**

Funding the Olympic Games is a multi-partner operation between the International Olympic Committee (IOC)/Organizing Committee for the Olympic Games (OCOG), the host city and country and private sponsors. Each entity is responsible for specific Games-related costs and they must appropriate funds accordingly. Most notably, IOC and OCOG funds cannot be used on permanent infrastructure projects. This means that improvements to public transportation, the construction of new athletic venues, and other such projects are largely the responsibility of the host.

Chicago 2016's bid includes \$1.03 billion of Non-OCOG sources for such infrastructure, including the Olympic Village. However, the bid book does not provide cost estimates associated with infrastructure improvements for transportation or telecommunications

projects, stating simply only that these improvements will occur as part of planned natural growth. This creates some ambiguity as to what the actual cost to taxpayers might be. It also results in a failure to highlight the full opportunity that the city has to undertake legacy projects that can help transform the city after the games conclude.

Despite this shortcoming, Chicago's vision for the Olympics aligns well with long-term planning goals, which will help maximize the benefits from the costs of hosting the Games. The city plans to take full advantage of the existing infrastructure, facilities, and equipment they have available to cut costs, minimize construction, and reduce negative environmental effects.

The plans for the Chicago 2016 Games call for using existing structures throughout the city for many sporting venues, limiting the need for new venues to be built. In order to reduce construction costs and to make use of Olympic venues after the Games have been completed, some of the structures, including the 80,000 seat Olympic Stadium, will be temporary. By building temporary venues, the city can fund more of the games with sponsor and IOC dollars, and can realize higher benefits since these structures can be used in various parks and areas around the city.

One of the most significant costs involved with Chicago's bid is the proposed Olympic Village along the lakeshore on the south side of the city. As this is a permanent project, IOC and OCOG funds cannot finance it, leaving the city financially exposed should private financing not be secured. This is somewhat mitigated, however, because once the Games are completed the Village will be converted into a new residential community with affordable housing – a revenue generating and appropriate use for a development that has seen underutilization in past host cities. Further, the location of the project will help add density to the city's downtown core, creating a strong market for businesses, and bring more of the population to a close proximity to public transportation and other public services.

According to Chicago's bid, the transportation network of roads, rail lines and bus routes allows the city to handle an influx of people into the area in a short period of time for major events. However, efficiency and reliability are two major concerns resulting from the city's current transportation infrastructure. An event the scale of the modern Olympics has not been seen in Chicago before. Therefore, upgrades and improvements are necessary if the city wants to successfully transport tens of thousands of athletes, family members, workers, media personnel and patrons. Olympic officials would like multiple options available for the Games, which means increasing the frequency and number of transport modes, more capacity on rail cars and buses, and technology upgrades to allow more efficient travel.

### **Section 3: Identifying Specific Olympic Legacy Projects**

In order to gain the most out of hosting the Olympic Games, it is important to focus on the long-term benefits resulting from strategic cost allocations and investments. The improvements made now should have far-reaching effects, and be built to serve the community first, with Olympic-related uses as a secondary goal. Here we propose specific legacy projects in six categories: Transit, Roadways, Neighborhoods, Parks, Lakefront, and Airport.

We estimate that these can be implemented using already appropriated revenue streams, and through leveraging other funding opportunities, such as federal investments in infrastructure and innovation. These projects, when completed, will provide non-athletic legacy projects that will serve the general citizenry of the city, create an enhanced national and international image, and create a long-term economic benefit for Chicago's economic growth.

**Transit.** If Chicago is awarded the Games, the city will be inundated with tens of thousands of tourists, visitors, athletes and officials, but only for a short period of time. The city must have in place a more comprehensive, functional and modern transportation system not only to handle an influx of visitors, but also to promote economic growth in core areas of the city. The CTA has a number of projects scheduled to be built regardless of Olympic plans. These include the Brown Line capacity expansion project to be completed in 2009, communication, track and structural improvements to be completed by 2013 and bus and rain terminal facility improvements to be completed by 2015.

While it is impractical to imagine a complete overhaul of Chicago's transit system, it would be possible to significantly improve upon, for instance, the Red Line's functionality and image. Imagine the Red Line upgraded and improved so it becomes the primary public transportation connection for the Games. Red Line stations could be renovated and designed to create a signature "Olympic Line" that represents a new direction for the CTA. After the games this line would continue to serve the center of the city, providing more efficient service for downtown businesses, residents, and visitors, and improving both the quality of life and the business climate in the downtown.

It would be further appropriate to use the Olympics to develop prototypes and design standards for the modernization of tracks and train, the replacement of stations and rolling stock, and enhanced frequency of service. The CTA could test alternate modes of transit such as light rail or a modernized track bed. A quieter and more reliable transit prototype will allow enhanced livability around El stations, resulting in future transit-oriented development opportunities, increasing property values, and improving the quality of life available in the urban core.

*Legacy Project:* Create a modernized "Olympic" Line: \$20,000,000. Benefits: Connect all venues. Enhanced business and commuting environment from both north and south sides, resulting in more attractive employment conditions. Enhanced residential neighborhoods.

**Roadways.** There will also be a need to improve roads in the areas surrounding venues, and possibly beyond, in an effort to maximize efficient travel and minimize traffic delays. The Olympics would be the catalyst needed to jump-start projects and have them completed quickly and effectively.

The importance of roads and civic infrastructure cannot be underestimated in planning for the Olympics. While Chicago has made great strides in the beautification and functionality of basic infrastructure, our streets, with some exceptions, still tend to be over-scaled, over-lighted, and relatively inhospitable. This tends to occur especially in our poorer neighborhoods. There have been notable examples of street redesign including major downtown arterials and many charming neighborhood commercial districts. However, there are still glaring shortcomings, sometimes on very significant streets.

Prior to hosting the games Chicago should have a sustainable lighting and public-realm design policy that will create better designed and environmentally-progressive roadways. This may include a complete and interconnected network of bike lanes on all city arterials and boulevards. Street lighting should be more sophisticated, without the waste of excessive light spillage. Additionally, the city should have in place a basic palette of pedestrian-friendly street design standards that ensure all street improvements are completed to the same basic level.

Amenities such as decorative bus stops and street furnishings are an additional cost, but as the downtown *Decaux* products demonstrate, Chicago can get the furnishings for the price of relatively unobtrusive advertising. With the Olympics, we will be in a stronger negotiating position and can perhaps even draw a profit from the furnishings. Costs can be further mitigated through careful design and economies of scale in production, reduction of design dimensions, standardization of elements, and other such techniques.

A recommended approach to this legacy effort is to identify three key infrastructure projects currently in planning, and prioritize them for Olympic completion. Take their normal budget, and add a premium of \$10 million to each project. This premium could be used to refine the quality of the design, more carefully study required lighting and signage levels, and implement more sophisticated solutions that can act as prototypes for post-game improvements.

*Legacy Project: Three Infrastructure Design Projects: 3 x \$10,000,000 = \$30,000,000*

**Neighborhoods.** Perhaps the greatest challenge any Olympic plan faces is the real and lasting benefits to neighborhoods within host cities. In Chicago, this challenge is even more acute, as some venues will be located in neighborhoods that lack the civic amenities available in the downtown. If Chicago can successfully address this problem, they could define a new model for Olympic investment. To their credit, the Chicago 2016 planning committee has established a program of “Neighborhood Legacies” that will speak to the issue of improvements in neighborhoods. Unfortunately, the bid book does not go into detail on the specific outcomes of this effort.

However, the opportunity for significant neighborhood improvements will be limited, and probably focused on two or three localized areas. One such area will be around the proposed Olympic Village, and perhaps another will be the neighborhoods surrounding Washington Park, the site of the Olympic Stadium.

What does “neighborhood legacy development” actually mean? It means using the opportunity of the Games to create sustainable development opportunities and infrastructure improvements that will attract future growth. Decentralized, neighborhood-based venues have the opportunity to strengthen marginal areas and to occupy underutilized sites. Investment must include quality street improvements, commercial revitalization, and perhaps the creation of new parks. It means buildings that are flexible in their use, can house events-related uses, and then be converted into live-work space following the Games. Additionally, it may mean bringing some venues in off the lakefront into neighborhoods that can benefit from recreational amenities. This is a good step towards making highest and best uses of available space throughout the city, and directing development to areas that can sustain growth and activity after the games.

As part of the Olympic finance proposal, Chicago 2016 should identify four specific Neighborhood Legacy projects, and provide a parallel track of funding that would be dedicated to completing long-term public improvements within neighborhoods. This funding stream could be directly derived from merchandise sales, so that money that is spent in the neighborhoods directly benefits the residents that are impacted and likely inconvenienced, by the Games.

*Legacy Project: Four Neighborhood Legacy Projects: 4 x \$15,000,000 = \$60,000,000*

**Parks.** Chicago's park system is an evolving legacy that has been refined since it first received significant attention in Burnham's 1909 Plan of Chicago. Yet out of seventy-five major cities surveyed by The Trust for Public Land, Chicago ranks 69<sup>th</sup> in park acreage per person. Chicago's residents, particularly those away from the lakeshore, are significantly underserved in park acreage.

With many Olympic venues located in city parks, the challenge will be to conduct a viable Games without adversely affecting the long-term function and original design intent of the parks in which venues will be placed. Washington Park, created by Central Park designer Frederick Law Olmsted and the site of the proposed Olympic Stadium, will be substantially compromised during the Games as a significant portion of its surface area will be consumed for Olympic-related activities.

A by-product of not carefully considering a post-Olympic utilization plan could be the degradation of the city's park system: more buildings within them, more paved surfaces and additional lighting, signage, and infrastructure. Recently, *Landscape Architecture* magazine decried the very real threats to our nation's city parks through back-room deals with civic heavyweights.

A suggested method to mitigate these likely impacts is to select three specific "Olympic Parks" and commit \$15 million to each park, for a total commitment of \$45 million. These funds would not be used for venue creation, but would be dedicated to the restoration and rehabilitation of the parks at the conclusion of the Games. It would give Chicago's parks a much-needed shot-in-the-arm, creating a maintenance and rehabilitation legacy that will give the park system a fresh start for the 21<sup>st</sup> century.

*Legacy Project: Three Park Rehabilitation Projects: 3 x \$15,000,000 = \$45,000,000*

**Lakefront.** Our public lakefront is a gift that has become Chicago's primary civic identity since its inception in 1837 and enhancement in the 1909 Plan of Chicago. Expanded and refined over much of the last century, Chicago's lakefront has emerged as one of the finest and most extensive civic waterfronts in the world.

However, like Chicago's parks, the lakefront has suffered from a series of encroachments over recent years that have reduced the amount of natural parkland available for recreational use. Northerly Island's concert venue, the potential Children's Museum, and the recent allocation of a portion of Lincoln Park for a soccer field are but three examples of encroachment in recent years. When the noise and illumination impacts of Lakeshore Drive and adjacent parking areas are included, one's ability to find respite along the Lakefront is further reduced. It seems likely that the addition of Olympic venues along the lakefront will add to the pattern of encroachments into natural areas Chicagoans currently enjoy.

Chicago must ensure the careful placement of venues such that they do not further erode available green parkland and waterfront space. Secondly, venues must be planned with a post-game function that is consistent with an overall vision of the lakefront as a civic amenity for the free enjoyment of all. And lastly, some venues should be identified for removal at the conclusion of the Games, to ensure the creation of more useable parkland for Chicago's citizens.

The city should follow the lead of concerned civic groups. Chicago's Friends of the Parks began the "Last Four Miles" initiative to create more public lakefront parkland in areas currently underserved by such an amenity. Similarly, in planning for the Games the city should identify three legacy lakefront projects that will ensure more green parkland for residents.

*Legacy Project: Three Lakefront Rehabilitation or Expansion Projects: 3 x \$15,000,000 = \$45,000,000*

**Airport.** A number of improvements are planned throughout Chicago in all aspects of travel. The O'Hare modernization program plans to increase service, with runways being constructed before 2016.

The most visible legacy of the Olympics could be a safe, reliable, quiet, and regularly-scheduled transit connection to O'Hare. This improvement is a potential revenue source of \$30 million per year, with stops downtown, at some logical half-way point between downtown and the airport, and with a potential interface with Metra trains.

This could be at least a partially privately-funded and managed concession that operates independently of the Blue Line. It could run every half hour (every quarter hour during peak times) on the half hour within the right-of-way of the Kennedy Expressway, with a trip time of 20 minutes and a 10-minute turn-around. This investment would be an elevated rail system that does one thing and one thing only: get people between downtown and O'Hare.

The initial cost would be high, but with a potential of 500,000 riders per year (about 1,400 riders per day or 60 per hour) at \$30 per person, the payback on a \$300 million system (20 miles at \$15 million per mile), would be 20 years. If design commenced in 2010, with completion in 2014, the system would be 10% paid for by 2016. Add in Federal transportation funding, advertising revenue, enhanced usage due to Olympic traffic, and reallocated funds from roadway budgets, and the payback horizon could be even less. This single move will perhaps go the furthest in establishing Chicago as a modern, 21<sup>st</sup>-century city, as it will facilitate business and tourism, reduce congestion, and provide more environmentally-friendly means of transportation to the downtown.

*Legacy project: O'Hare Express: \$300,000,000. Benefit: Direct business connection from airport to downtown; enhanced business services and attractiveness.*

## Section 4: Lasting Benefits from Olympic Legacy Projects

If proper spending and construction planning is conducted when preparing for the Games, potentially significant benefits will be seen in the form of new revenue, job creation, business creation and retention, positive physical impacts, and increased community spirit. Such benefits, however, will likely be short-lived if the city does not capitalize on the opportunity to undertake legacy projects as part of the Olympic preparation process. Worse yet, poorly planned legacy projects are likely to be underutilized after the games, leaving a gap in the urban landscape and an investment that doesn't generate returns.

The recommended legacy projects in this paper, as presented in section 3, integrate directly with the everyday life of Chicagoans. They provide quality of life and business climate improvements, can be widely used by all citizens, and are targeted towards infrastructure improvements that create and encourage economic growth.

A common hurdle for Olympic hosts is transportation, specifically the ability of a host city to accommodate the large upsurge in visitors. With proper preparation, Chicago can take advantage of the Games in this regard and be left with an updated, innovative transportation network – something that has been on Chicago's agenda for several years. The city could be left with improved roadways, enhanced signaling, increased train and bus service and more efficient means of travel. This much-needed benefit to the citizens of Chicago would be welcomed, along with the potential reduction in air pollution due to transit upgrades.

There are also environmental, health and social benefits that cannot be calculated with dollars and cents. Venues that will be transformed into recreational facilities throughout Chicago will promote more sporting activities among adults and youth. By hosting the Games, Chicago can encourage a greener, healthier city, one where people can further enjoy the environment and take more active roles in their own well-being and that of their children.

A focus on specific parts of the city, especially transitional neighborhoods that may be pushed back to vibrancy as a result of Olympic stimulated investments, will help create legacies that bring lasting value to entire neighborhoods, and not just the downtown core. This will also create new opportunities for economic vibrancy in areas that currently do not have the amenities or infrastructure to meet the needs of businesses and residents, whereas a focus only on downtown will not have such a transformative impact on the area.

Finally, it should be noted that these projects and infrastructure improvements should not be viewed as contingent upon hosting the Olympic Games. Hosting the Olympics should, instead, be viewed as an opportunity to pursue projects that might otherwise not be made a priority, or that might not otherwise receive broad support and financial assistance from non-local sources. This said, it is not the games themselves that will bring legacy investments and stimulate economic growth, it is the careful planning and execution of planners and city leaders to ensure funding made available as a result of the Olympics is used primarily for citizen and business oriented investments that have secondary benefits associated with allowing the city to successfully host the games.

## Conclusion

Will there be significant economic costs and physical impacts to Chicago should we receive the Olympic Games? Definitely. Will there be exceptional benefits and a lasting legacy bestowed upon the city once the Games have concluded? Probably. It depends on the effort put into ensuring the city is prepared for the Games and how well the Games showcase the city. There are no guarantees as to how much the city can gain, in monetary, physical, or social benefits. However, if the city can direct the expenditures of the Games, and manage the costs to align them with long-term goals of the city, there can be a maximization of net benefits and securing of that deeply sought-after, compelling legacy.

## About the Authors

**Peter J. Kindel, AIA ASLA.** Mr. Kindel is an architect specializing in the design of cities. Mr. Kindel is president of the urban design and planning firm [Topografis PC](#), and was formerly an Associate Partner with Skidmore, Owings & Merrill LLP in Chicago. Mr. Kindel holds master's degrees in architecture and city planning from the University of Pennsylvania, and a bachelor's degree in landscape architecture from Michigan State University.

In his seventeen-year career, he has addressed the infrastructure design, mixed-use urban infill and large-scale master planning. With training in landscape architecture, Mr. Kindel emphasizes environmental systems in his projects. Mr. Kindel's work has been honored with seven national design awards from the American Institute of Architects, the Urban Land Institute, and the Congress for New Urbanism, among others. His writing on the design of public spaces has been published in *Crain's Chicago Business*, *Chicago Architect*, and *Commercial Builder & Architect*.

**Scott D. Watkins.** Mr. Watkins is a Senior Consultant with [Anderson Economic Group, LLC](#), with expertise in economics, industry, and market analyses, as well as public policy. He manages the firm's market and industry analysis practice area, working with public and private sector clients to deepen understandings of their market and place in the economy, and to develop strategies to strengthen their positions. In addition to his client-focused work, Mr. Watkins is the firm's Finance and IT Director.

Mr. Watkins holds an M.B.A. from the Eli Broad College of Business at Michigan State University. He also has a B.A. in marketing from Eli Broad College of Business and a B.A. in international relations from the James Madison College, both at Michigan State University.

**Andrew Hasdal.** Mr. Hasdal, a research intern with [Topografis PC](#), holds a master's degree in Urban Planning and Policy from the University of Illinois-Chicago where he specialized in physical planning. He also holds a B.A. in Urban and Regional Planning from the University of Illinois – Urbana-Champaign where he graduated with honors. Mr. Hasdal is a member of the American Planning Association. Mr. Hasdal's has worked professionally for Valerie S. Kretchmer Associates, a real estate market analysis firm, and as an instructor at the Marshall Bennett Institute of Real Estate at Roosevelt University in Chicago.