

CREATING CITYCENTER

MGM MIRAGE's urbane and sustainable "city within a city" redefines Las Vegas



“CityCenter is for people who want the Las Vegas they’ve never seen before.”

Jim Murren, Chairman and CEO, MGM MIRAGE

“This is the future of Las Vegas—CityCenter is in an entirely different category.”

Bobby Baldwin, President and CEO, CityCenter

“CityCenter is the best example anywhere of a collaborative design process.”

Art Gensler, Founder and Chairman, Gensler

12/16/09

CityCenter Grand Opening



REINVENTING LAS VEGAS

Once a generation, Las Vegas reinvents itself. In the Rat Pack era, it embraced midcentury modernism. Then, The Mirage and Bellagio remade The Strip as an entertainment resort destination. Early in this new century, MGM MIRAGE envisioned a “city within a city”—a new symbol of Las Vegas that, in the words of CityCenter’s Bobby Baldwin, combines “the vitality of Las Vegas with the experiences tourists seek in great cities around the world.” In 2005, master plan in hand, MGM MIRAGE asked Gensler to join it and make CityCenter a reality. How our team helped reinvent Las Vegas is a case study in design leadership.

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“CityCenter aims to transform Las Vegas as a new symbol at its core.”

Bobby Baldwin, President and CEO, CityCenter

A CITY WITHIN A CITY THE VISION

It took strong design leadership to bring the initial plan and building program to a fully realized vision of an urbane and dynamic place, the heart of a new world city of entertainment.

Bobby Baldwin on CityCenter: “This is one of the few places in the world where we had a completely clean canvas—and the resources for the best of everything possible. There is no such development anywhere in the country. There’s going to be Las Vegas and there’s going to be CityCenter—it’s in an entirely different category: the largest, the highest density, and by far the longest list of amenities. We offer the best entertainment and the best accommodations, with unparalleled access to Las Vegas. It’s only eight minutes from the airport. Unlike other would-be world destinations, CityCenter combines leading-edge design with an overall vision, well-conceived and executed. It will stand the test of time.”

CityCenter gives The Strip an urban core—a new city-scale development that supports a rich, full, 24/7 life. Calibrated to a Manhattan density, CityCenter encourages people to cover longer distances using the three-station PeopleMover and then explore each neighborhood on foot. Of the major projects on The Strip, only CityCenter connects directly to adjacent resorts—Monte Carlo and Bellagio—to create a walkable, accessible urban district. CityCenter is a whole greater than any of its distinctive parts, a world-class destination for leisure and entertainment.

original

dynamic

visionary

urban

diverse

exciting

smart

artful

“We had a new vision for Las Vegas.”

Jim Murren, Chairman and CEO, MGM MIRAGE



As a Harvard Business School case study notes, CityCenter reflects Jim Murren's global strategy of reinventing MGM MIRAGE as a real estate-focused company leveraging its development expertise in concert with partner companies, and expanding its brands in Las Vegas and around the world.

A CITY WITHIN A CITY THE CHALLENGE

MGM MIRAGE is no stranger to large-scale development. The company previously led the design and delivery of The Mirage and Bellagio, two projects that redefined The Strip and made the city's reputation as an entertainment resort destination. CityCenter is exponentially bigger. The world's largest LEED-registered development, planned from the outset for a December 2009 opening, CityCenter posed unprecedented challenges for its design leaders, MGM MIRAGE and Gensler.

67 acres

CityCenter is essentially an urban district, 67 acres (27.1 hectares) or about 12 Manhattan blocks in area. This made compact, high-density development possible. Connecting CityCenter by transit with the adjoining Bellagio and Monte Carlo properties, also owned by MGM MIRAGE, creates an even larger setting that residents, guests, and visitors can experience on foot, without ever having to use cars or cabs to get to their destinations. This is part of what makes CityCenter a true “city within a city.”

5 years

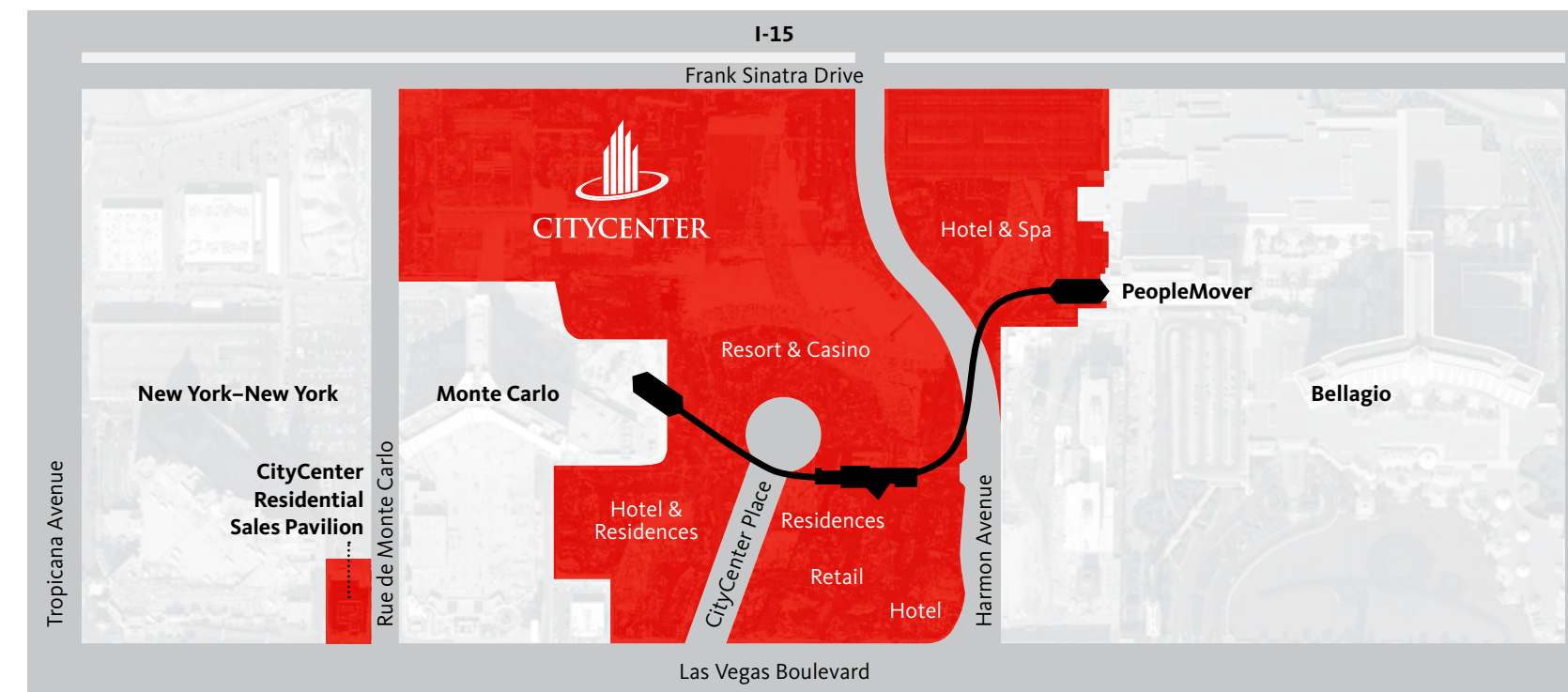
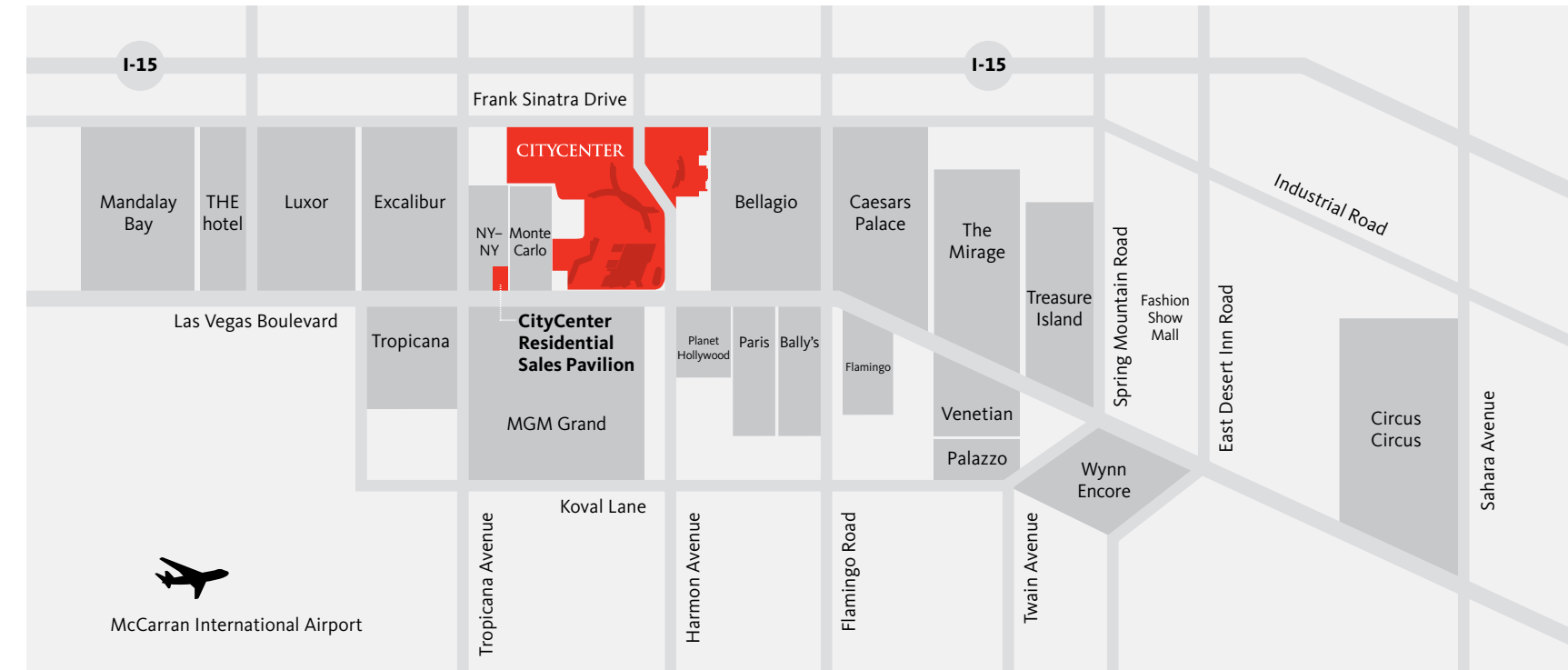
In late 2004, MGM MIRAGE committed to opening CityCenter in December 2009—from concept to completion in just five years. Accomplishing this meant leading multiple teams of architects, designers, engineers, specialists, and—with the construction leaders—an army of contractors and subcontractors. The leadership had to be seamless—MGM MIRAGE and Gensler were joined at the hip, with the expertise and resources to guide a development of unprecedented scope and scale to an on-time finish.

18 mil sq ft

CityCenter is a remarkable mix of uses, 18 million square feet—1.67 million square meters—of high-end residential, hospitality, entertainment, shopping, and recreational buildings and settings. These uses are connected not only by a PeopleMover system, but also by underground circulation and infrastructure, minimizing the impact of parking and servicing to ensure a walkable experience. Integrating these individually stunning buildings as a rich, compelling whole was one of the main design challenges.

LEED gold

CityCenter is the single largest development in the world to pursue LEED—six LEED Gold projects in one. MGM MIRAGE is committed to sustainability, so design leadership meant defining the green opportunities and then creating the framework to ensure that every project and every participant worked to accomplish them. The Gensler-led sustainability effort addressed the entire development, from site clearance and methods of construction to design and materials, and the operation of the buildings and settings.



“CityCenter is about world-class architecture forming a complementary whole.”

Bill Smith, President, MGM MIRAGE Design Group

DESIGN LEADERSHIP

In 2004, MGM MIRAGE Design Group was given the assignment of assembling the team of leading architects, interior designers, and specialty consultants that would create CityCenter. After traveling around the world, conducting hundreds of interviews, MGM MIRAGE Design Group realized it would need to partner with a global design firm that could seamlessly reinforce and complement its in-house capabilities to orchestrate a project of unprecedented size and complexity, to meet a challenging, fast-track schedule. At 5:00 p.m. on January 3, 2005, MGM MIRAGE asked Gensler to join the CityCenter design leadership team as its partner. At 8:00 a.m. on January 4, Gensler senior design-delivery leaders were on the job.

Drawing talent from 12 different offices across its global network, Gensler mobilized a core group of 50 design professionals at MGM MIRAGE’s CityCenter project office. Among them were specialists for such specific assignments as brand strategy, development

of tracking tools and databases, and LEED guidance and research. Gensler set to work on the most pressing priorities: get the full CityCenter design and implementation team in place; establish an upfront sustainability strategy; infuse the initial master plan for CityCenter with a design vision, brand strategy, and pragmatic rigor; and put methods and systems in place to help simplify this complex project and expedite its completion.

Delivering CityCenter in just five years required a full-throttle, fast-track process. To give CityCenter a more manageable scale, the design leadership team redefined CityCenter as three blocks plus common areas—each with distinct programs and uses. This framework made everything that followed simpler, from choosing the project teams to developing building concepts and branding, updating the program, controlling project documentation, providing data to support financial and operational models and analysis, and accelerating procurement to offset spiking materials prices.

► **CityCenter design leadership**
MGM MIRAGE and Gensler formed the CityCenter design leadership team to oversee the architects, designers, engineers, and specialists responsible for the different blocks and their projects. The block structure simplified the task of managing this massive, 18-million-square-foot development.

MGM MIRAGE Design Leadership



Bobby Baldwin
President and CEO, CityCenter



Bill Smith
President, MGM MIRAGE Design Group



Sven Van Assche
Vice President, MGM MIRAGE Design Group



Tony Dennis
Executive Vice President, CityCenter



Bill McBeath
President, ARIA Resort & Casino



Bill Ham
Vice President, Facilities



Cindy Ortega
SVP, Energy & Environmental Services

Gensler Design Leadership



Art Gensler
Chairman and Founder



Andy Cohen
Executive Director



J.F. Finn III
Project Executive/ CityCenter



Walter Hunt, Jr.
Managing Director/ CityCenter



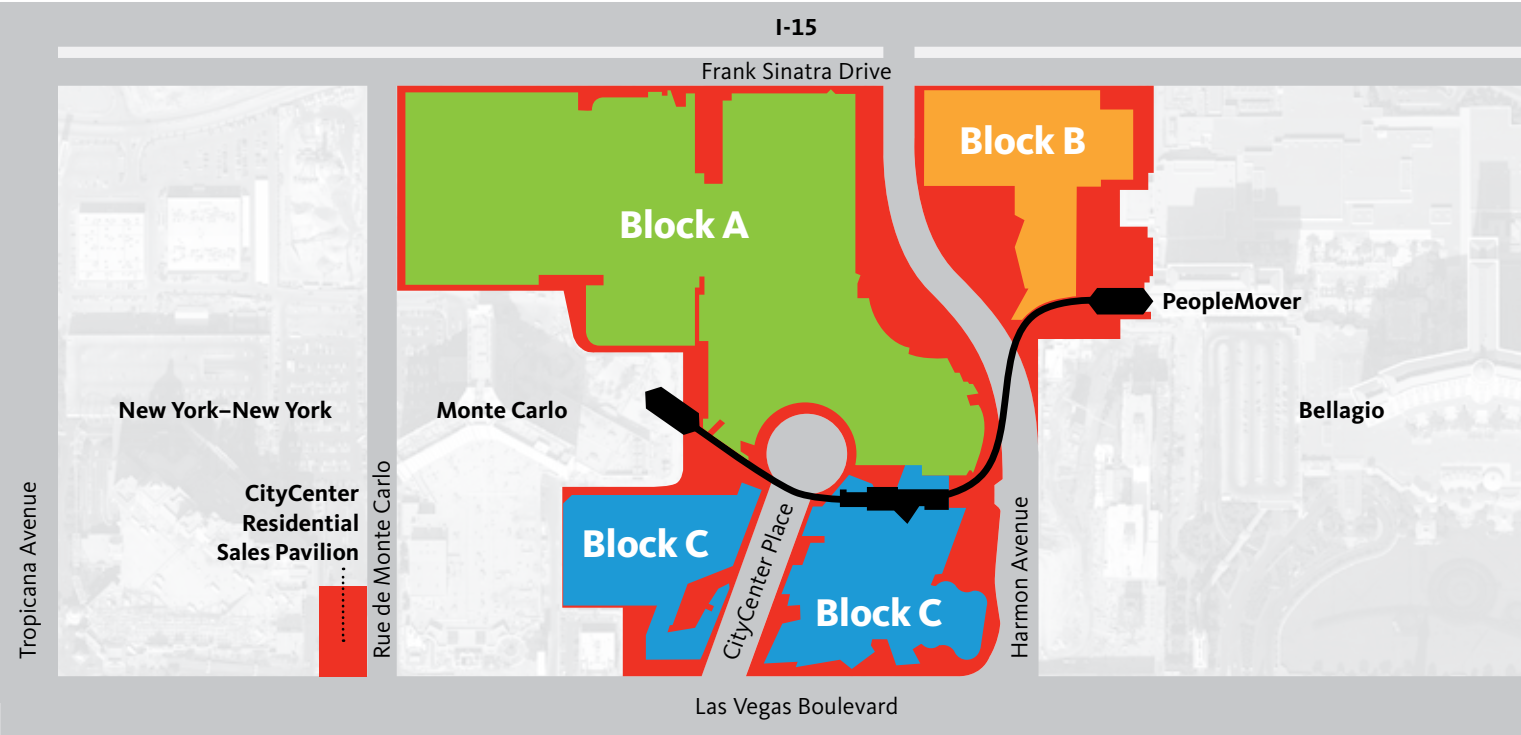
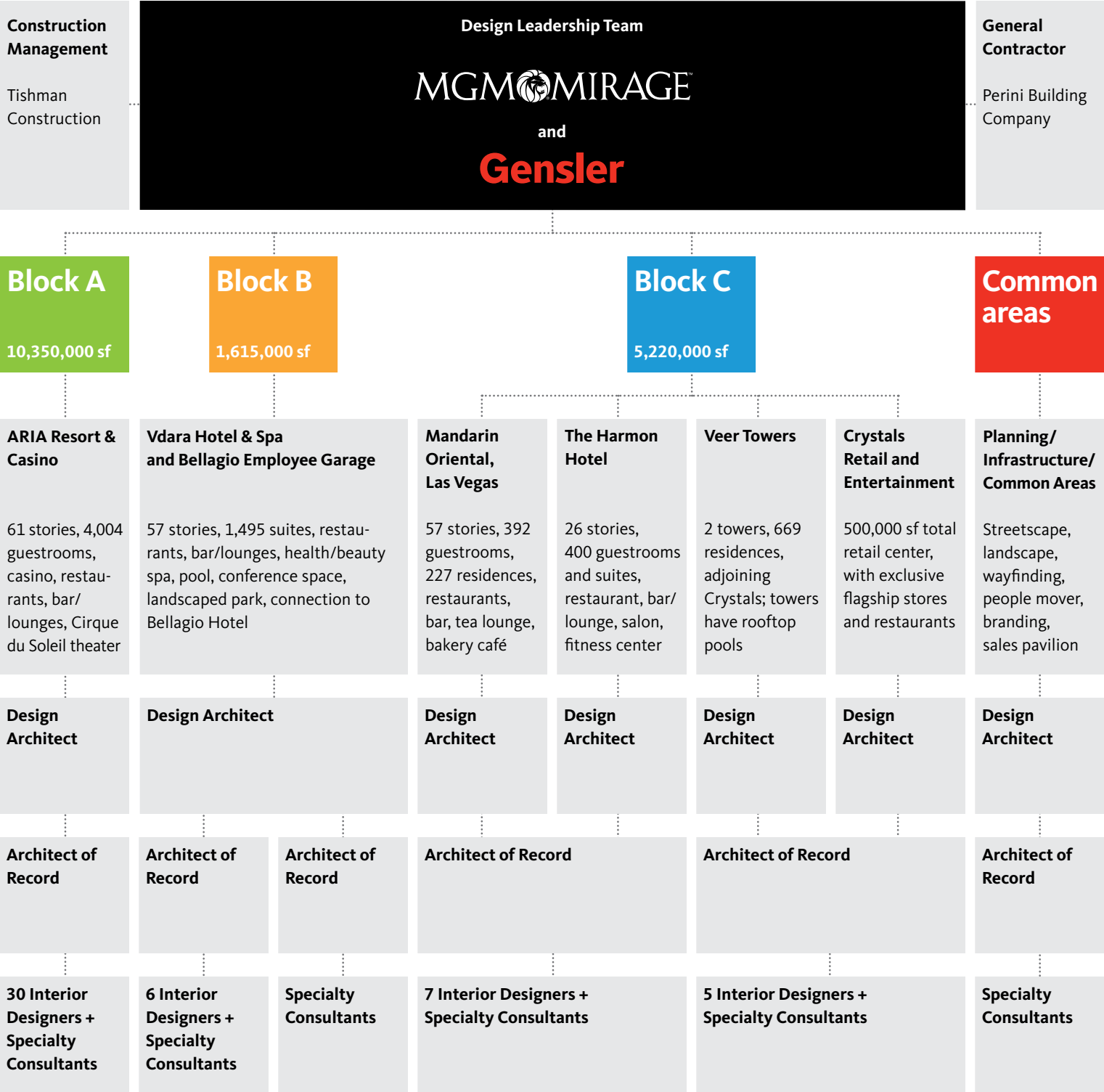
Hunter Clayton
Project Director/ CityCenter



Bob Stefko
Technical Director/ CityCenter



Nellie Reid
Sustainability Director/ CityCenter



“Our first priority at CityCenter was to orchestrate design collaboration.”

Andy Cohen, Executive Director, Gensler

CATALYST FOR **IDEAS**

Design leadership takes a vision and makes it real. MGM MIRAGE saw the need—the opportunity—to reinvent Las Vegas as a world-class city, with CityCenter as the catalyst. What was envisioned was much bigger than anything the company had done before. A master plan established its initial scope. Design leadership orchestrated the rest. Gensler helped MGM MIRAGE identify leading designers around the world, meet them and see their work, explore the potential for sustainability in every aspect of the new development, and—once a short list of global talent was identified—engage them in a uniquely collaborative, idea-generating introduction to CityCenter.

Leading designers usually focus on individual signature projects. Only rarely are they called on to work together to create a city. There are famous instances of forced marriages that produced acrimony and mediocrity. To counter this, Gensler's Andy Cohen proposed a design charrette that would spur collaboration and innovation. Invited teams spent time in Las Vegas understanding the plan and vision for CityCenter. They returned to their home cities, came back a second time to collaborate and learn, left again, and then reconvened to present to the CityCenter design leadership team and each other. The energy and synergy the charrette process generated resulted in a rich and seamless set of overall design ideas for CityCenter that transcended any one building concept.

Gensler led the charrette process including vision briefings, brainstorm sessions, and design discussions, capturing the ideas in play and feeding them back to the design architects and their teams.

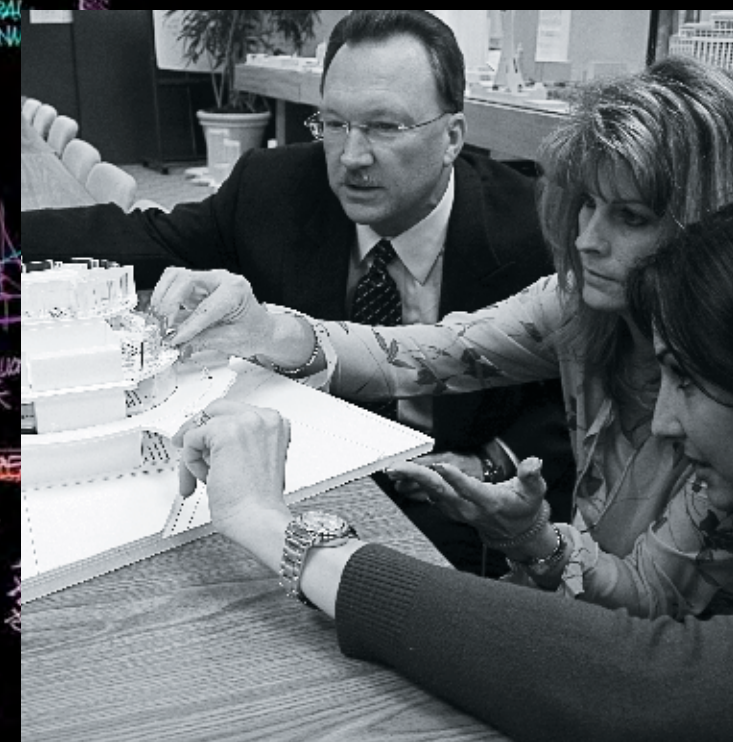


MGM MIRAGE's Bobby Baldwin (below right), Bill Smith (below left, on left), and Sven Van Assche (above, with tie), and Gensler's Art Gensler (top left) and Andy Cohen (left, holding drawing) are shown leading the CityCenter design charrette in Las Vegas. Over seven weeks, the invited design architects alternated between Las Vegas and their own studios in the US and abroad, spending a total of three weeks working with and learning from each other. Besides elaborating the vision, this let the design leadership team finalize selection of design teams for the CityCenter projects.

7-week schedule

Week 1	Kick-off, Charrette 1	Las Vegas
Week 2	Elaborating the vision	Home studios*
Week 3	Charrette 2	Las Vegas
Week 4	Elaborating the vision	Home studios*
Week 5	Charrette 3	Las Vegas
Week 6	Elaborating the vision	Home studios*
Week 7	Final presentation	Las Vegas

* In Asia, Europe, and North America





▲ Gensler's design of the CityCenter Residential Sales Pavilion settings immerses prospective owners in MGM MIRAGE's vision of a new Las Vegas and introduces them to each of its world-class offerings.

**“Las Vegas is ripe for a new paradigm.
CityCenter provides it.”**

Sven Van Assche, Vice President, MGM MIRAGE Design Group

BRANDING THE DESTINATION

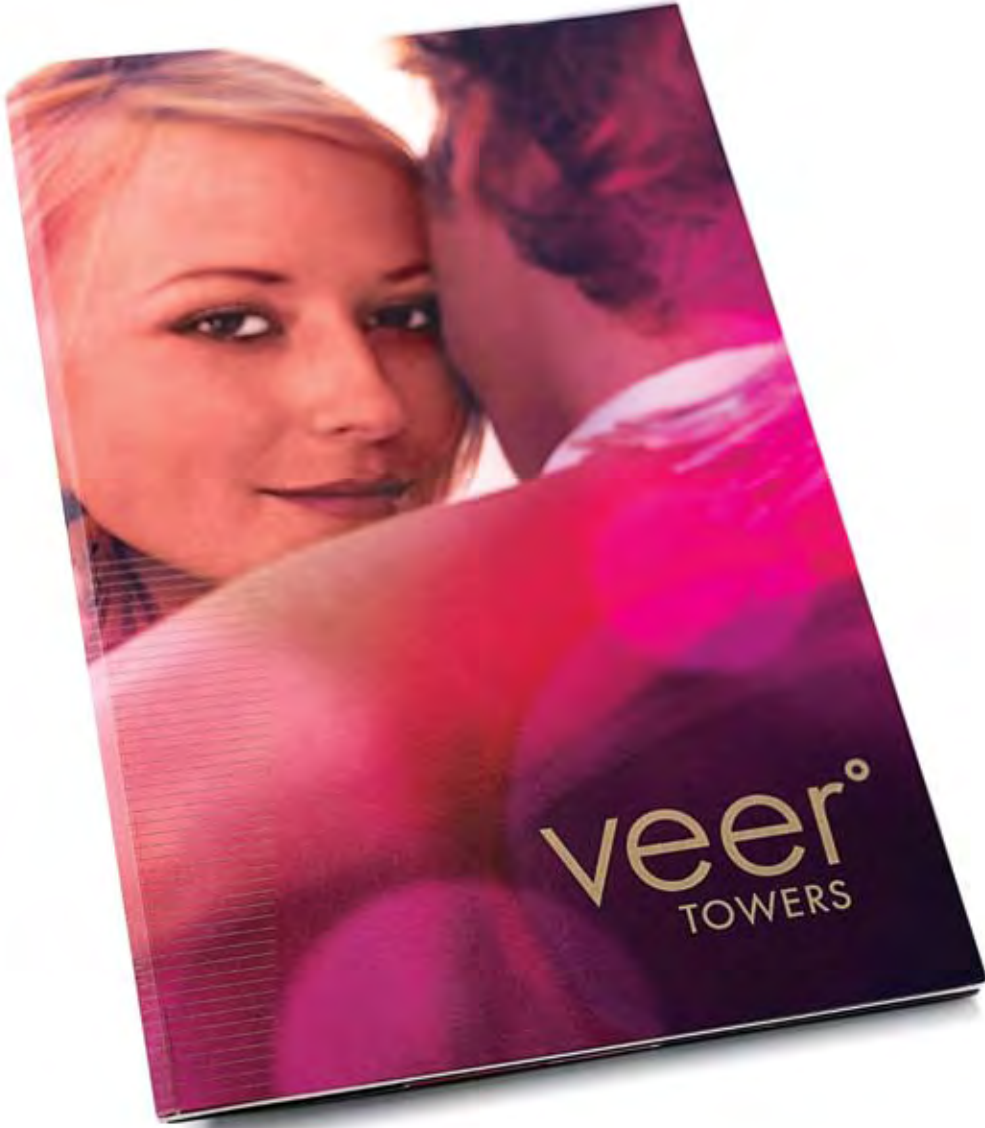
Gensler helped MGM MIRAGE capture its vision of CityCenter—so big, bold, and brilliant that it will transform Las Vegas for generations. Part of the challenge, as CityCenter's Tony Dennis explains, was to “establish a hierarchy of brands to differentiate CityCenter's business units and residential properties from each other and from all non-CityCenter offerings” to create a complementary whole. To achieve this, the Gensler brand design team analyzed CityCenter's market segments and then developed strategic positioning for the residential and retail properties. This included naming many of the buildings and creating the look and feel—words and visual language—to attract potential buyers and support MGM MIRAGE's multi-step sales process.

▼ A series of museum-like galleries, like this one for Vdara, allows people to familiarize themselves with the different CityCenter properties.

In just five months, MGM MIRAGE and Gensler developed strategic positioning for CityCenter and the majority of its components, all of the collateral material, scripting of the film that introduces the development, and the planning and design of the sales pavilion settings that would introduce prospective owners to MGM MIRAGE's vision of Las Vegas as the world's leading urban entertainment destination. Drawing on its global experience in planning, positioning, and designing high-end mixed-use development in a world city context, Gensler was able to assemble a team of brand strategists, designers, and writers to help MGM MIRAGE create everything needed to bring CityCenter and its unique properties to market.

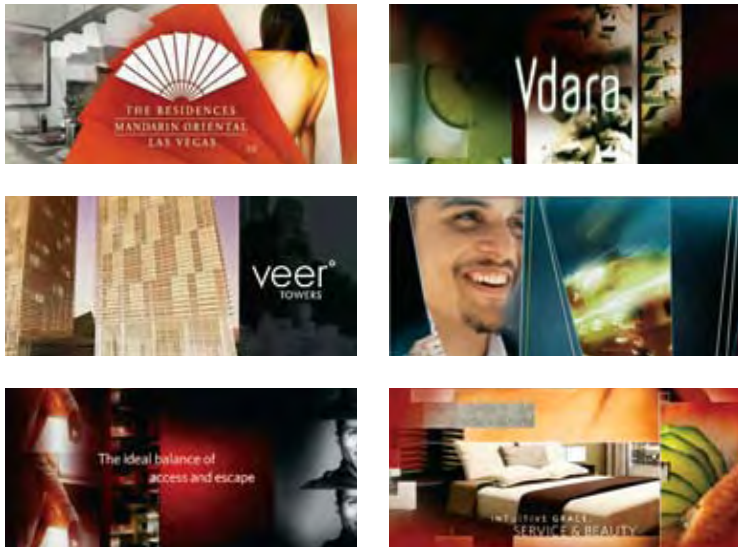
▼ The Sales Pavilion's settings preview the experience of living at each CityCenter property. Shown here is the Mandarin Oriental, Las Vegas.





▲ Brochures like this one for the Veer Towers express the look and feel of the property in a way that's immediate and compelling to its audience.

▼ A series of short films present CityCenter and its properties. The overview is an important feature of the Sales Pavilion, to introduce people to an entirely new way of looking at Las Vegas. The individual films can be packaged with a viewer for serious buyers.



DELIVERING THE BRAND

The Gensler brand design team extended the CityCenter vision to many of its residential properties and to the “connective tissue” of environmental graphics and signage. Services included naming several of the residential properties and designing their identities; creating collateral to support their marketing and sales; and leading the design of landmarks, directional signage, and other environmental cues to make CityCenter easy to navigate and give each of its areas a distinctive character. Even the PeopleMover's track-way, as a ribbon of light, contributes to this.

▼ Part of the extension of the CityCenter brand was to name the CityCenter projects, design their identities, and create the collateral material to support their marketing and sales.



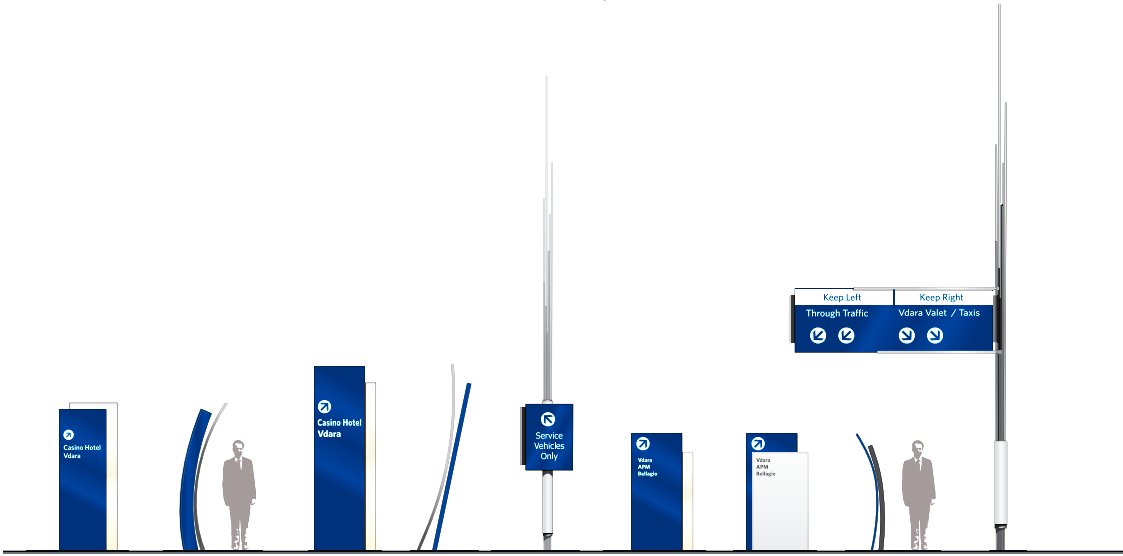
▲ The renowned Mandarin Oriental brand was applied to the CityCenter hotel's collateral materials.

▼ The brand identity for Crystals and other CityCenter properties was applied to everything that supported the sales process, even the bottled water.



▼ ▲ Gensler designed the bundled “metal and light” stanchions that are an important part of a program that ranges beyond more conventional directional and

wayfinding signage (bottom) to provide visual landmarks that can hold signage in some instances and become part of the visitor's experience in others.



“The challenge was to meld all these great design concepts into a cohesive whole.”

J.F. Finn III, Gensler Principal and Project Executive/CityCenter

MAKING IT HAPPEN

MGM MIRAGE has an enviable track record for effective design and construction leadership, proven on such landmark developments as The Mirage and Bellagio. Led by Bill Smith and Sven Van Assche, MGM MIRAGE Design Group had standards, systems, and controls in place to generate high-quality, high-performance buildings and settings, but never at this scale and with such diversity of projects and participants. When Gensler joined the CityCenter design leadership team, it brought its global design and delivery expertise, honed on comparably large mixed-use developments in China, the Gulf, the US, and the UK. Gensler took the process to a whole new level.

When the cost of steel and other materials and products went through the roof, Gensler helped MGM MIRAGE accelerate procurement and tap suppliers and manufacturers on a global basis. Gensler also set up the organizational framework for directing, managing, and coordinating the work of all the different project teams. This made it easier for them to document, report, and share information digitally in a consistent and timely way. Gensler continually updated project data to support MGM MIRAGE's program and procurement decisions and inform key negotiations with public agencies, utilities, and others—efforts that helped CityCenter stay on track, despite its complexity.



The leadership team constantly updated the CityCenter plan (below) and program during design and delivery. The photo (opposite) shows the massive development's urban scale and complexity.

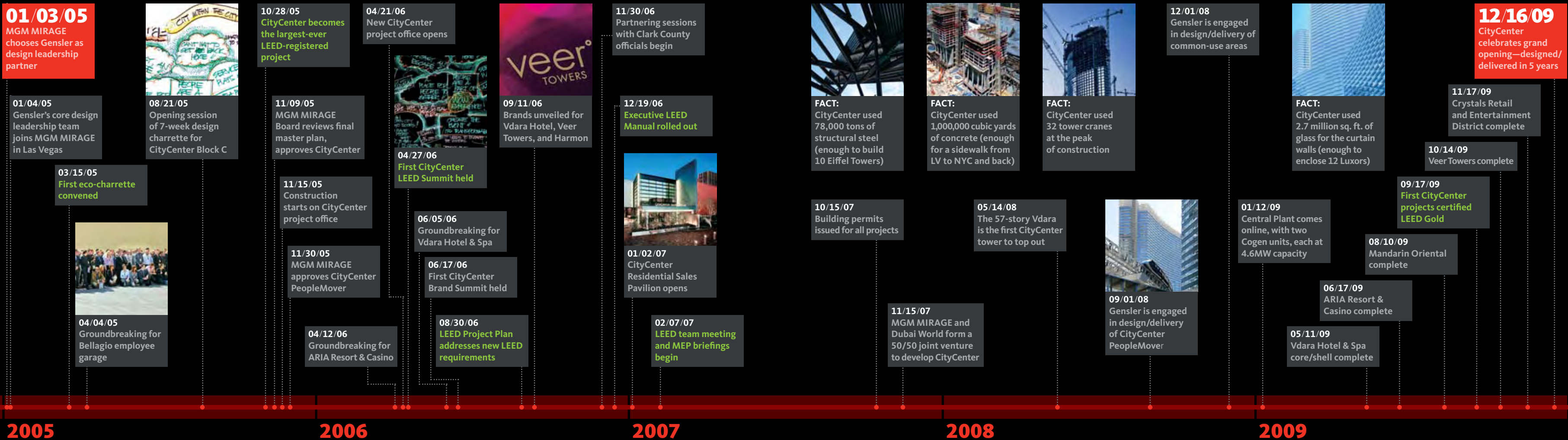


CityCenter posed numerous challenges to its builders. Gensler expedited the owners' response to requests for information, working closely with the different project teams.



CONCEPT TO COMPLETION

FIVE YEARS



CITYCENTER IS THE WORLD'S LARGEST LEED DEVELOPMENT

The CityCenter eco-charrettes, held in Las Vegas and led by Gensler's Nellie Reid and Jim Oswald, established goals for sustainability in design, construction, and operations, and created a framework for achieving LEED Gold certification for the CityCenter projects.

“We aimed to create a vibrant destination to demonstrate that a community can be both beautiful and sustainable.”

Cindy Ortega, Senior Vice President, Energy and Environmental Services, MGM MIRAGE

GREENING CITYCENTER

CityCenter is the world's largest LEED development. How do you certify six LEED Gold projects at once? It takes a motivated client and a committed, collaborative team. In March 2005, MGM MIRAGE and Gensler convened an eco-charrette with the construction leadership and the ARIA design team. The charrette confirmed goals, explored options, and created the road map to move CityCenter from concept to final LEED certification. Gensler then assembled a 40-person LEED team—including sustainability experts for every project—to ensure that CityCenter met its ambitious goals.

The LEED team briefed every project's consultants—700 people in all—on LEED goals, design credits, and submittals. To set a high sustainability baseline, Gensler provided green “master” specifications for all of the projects; convened annual LEED summits with the experts; held weekly calls to resolve problems; and helped fine-tune the process with the US Green Building Council (USGBC). This spirit of collaboration led to new strategies and innovative solutions. And it paid off in LEED Gold—as MGM MIRAGE's Cindy Ortega notes, “We achieved every design certification point we went for.”

HOW WE DID IT

- 1** **Setting the stage for LEED.** Gensler helps MGM MIRAGE assemble a 40-person LEED team of experts and develops LEED tools and procedures, including green master specs.
- 2** **Holding the eco-charrettes.** The two eco-charrettes make the case for sustainability, explore strategies, define LEED goals, get contractor buy-in, and provide initial cost/benefit analysis.
- 3** **Registering with USGBC.** Gensler registers the CityCenter campus with the US Green Building Council (USGBC), making it the largest single project ever registered.
- 4** **Analyzing LEED strategies.** After analyzing potential LEED credits, the 40-person LEED team selects the most appropriate for CityCenter and records them in a LEED scorecard.
- 5** **Developing LEED manuals.** With buy-in from the entire CityCenter team, the LEED team develops LEED manuals outlining detailed compliance strategies for all LEED credits pursued.
- 6** **Presenting the LEED project plan.** The LEED team meets with USGBC to discuss CityCenter's unique challenges and gain agreement on the logistics of its complex certification process.
- 7** **Preparing the LEED design phase submittal.** The LEED team works with each project's architect of record (AOR) to assemble the LEED design phase submittal to obtain design credits.
- 8** **Preparing the LEED construction phase submittal.** Working with the general contractor and CM, the LEED team assembles the construction phase submittal to obtain construction credits.
- 9** **Achieving LEED Gold certifications.** Green Building Certification Institute (GBCI) reviews and certifies each submitted LEED-registered project, resulting in six LEED Gold certifications.

RESULTS THAT MATTER—LEED GOLD

From the start, CityCenter was envisioned as a transformative development. MGM MIRAGE viewed sustainability as a crucial way for Las Vegas to meet the challenges of a new century. This reflects a widely shared concern with global warming and resource shortages, as well as a consumer preference for environmentally safe, healthy settings. MGM MIRAGE also saw sustainability as a huge source of added value for CityCenter and its owners, guests, and visitors. As part of the design leadership team, Gensler worked closely with the company and its construction partners to achieve sustainability at CityCenter in every aspect of its development: demolition, design, construction, and operations.

MGM MIRAGE and Gensler agreed on the sustainable strategies for CityCenter at the eco-charrette, and then set them out as performance criteria for every project. The goals were to optimize energy performance, reduce water use, and improve indoor air quality. Construction and demolition waste was almost entirely diverted from landfill, and construction waste was minimized. Among the sustainable design measures are high-performance façades with low-emittance insulating glass and sunshades, cool roofs, and the pervasive use of materials with locally sourced and/or recycled content. Achieving LEED Gold at CityCenter was by design—and Gensler helped make it happen.




The US Green Building Council launched the Leadership in Energy and Environmental Design (LEED) rating system in 2000. Six CityCenter projects are LEED Gold-certified, a remarkable achievement that reflects an unwavering commitment to sustainability.

Added cost to achieve LEED Gold:

5%

Energy savings due to LEED Gold:

>30%




Reduction in building potable water use:

33 %




Reduction in water use for landscaping:

60 %



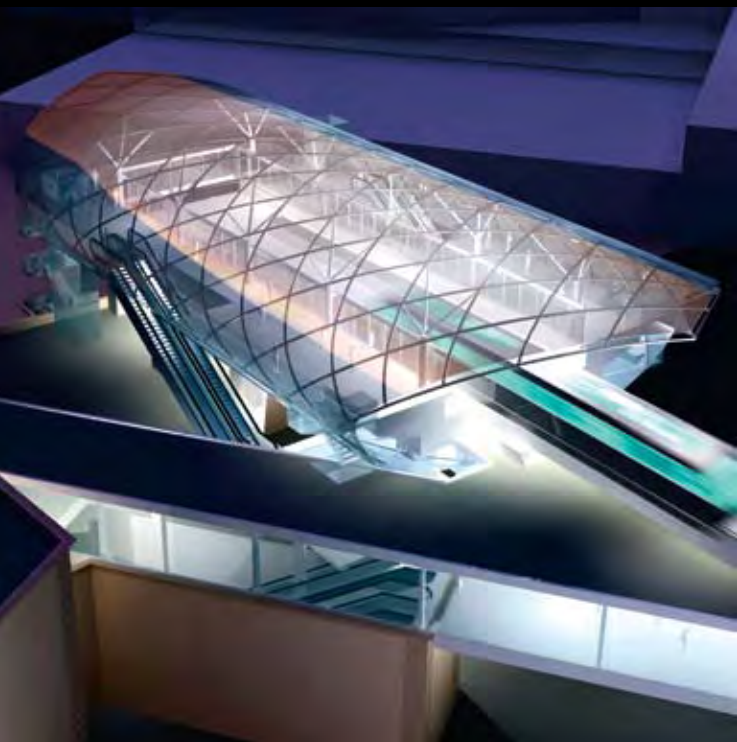
Wood products in ARIA and Crystals that are Forest Stewardship Council certified:

87 %



Reuse of demolition and construction waste:

94 %



WALKABLE URBANISM

An important development in urban sustainability is the recognition that higher-density development served by transit can dramatically reduce traffic congestion and pollution by encouraging people to leave their cars behind and walk. The Gensler-designed Las Vegas Monorail introduced this concept to the city.

The size and density of a typical district in Manhattan, CityCenter provides transit access to its major destinations. This allows people to experience the entire area on foot, including the adjoining Bellagio and Monte Carlo properties, without having to use taxis or their own cars. This sustainable pattern is the future of Las Vegas.



“To open CityCenter in December 2009, as we predicted in 2004, is a remarkable feat.”

Jim Murren, Chairman and CEO, MGM MIRAGE

THE VISION REALIZED

MGM MIRAGE teamed with Gensler to lead seven world-class architects, 43 interior designers, and over 200 consultants to deliver this game-changing development. Together with our esteemed MGM MIRAGE colleagues, we celebrate its opening. CityCenter’s completion achieves Jim Murren and Bobby Baldwin’s vision of a new and urbane Las Vegas, reinvented for the 21st century.

A TEAM OF THOUSANDS DESIGNED AND DELIVERED CITYCENTER

Design Leadership Team:

MGM MIRAGE and Gensler

Construction Management:

Tishman Construction

General Contractor:

Perini Building Company

CityCenter Project Teams:

Block A:

- ARIA Resort & Casino—61-story tower and 54-story tower, with 4,004 guestrooms total, including 568 suites;
- 595,946 sq ft Cirque du Soleil theater;
- 150,000 sq ft casino, 37,668 sq ft of retail, 219,401 sq ft of restaurants, 42,520 sq ft of bars/lounges

Design Architect: Pelli Clarke Pelli Architects; Architect of Record: HKS; Interior Designers: Hotel Tower: MGM MIRAGE Design Group / BBGM; Sirio Ristorante: Tihany Design; Union: Tihany Design; Salon Prive: Peter Marino Architect; Sage: Jacques Garcia / Hamilton Anderson; Back of House: McKee & Carman Design Group / Hamilton Anderson; The Buffet: Lewis. Tsurumaki.Lewis; Pool Bar: Graft LLC; Main Casino: Remedios Siembieda; Club Lounge: Franklin Studios; Café Vetro: Bentel & Bentel; Convention Center: Remedios Siembieda; Jean Philippe Patisserie: NODA / Westar Architects; Blossom: studioadesign; Lemongrass: AvroKo; The Roasted Bean: Jacques Garcia; Sweet Chill: Karim Rashid; Breeze Cafe: Graft LLC; Jean Georges Steakhouse: Dupoux Design; Bar Moderno: Jacques Garcia; The Crossings: McKee & Carman; Executive Offices: Brayton Hughes; Carta Privada: Peter Marino Architect; BARMASA / Shaboo: Richard Bloch Architect; View Bar: Richardson Sadeki; Retail Mall: Gabellini Sheppard; Haze Nightclub: ICRAVE; Poker Room: Jacques Garcia; Papillon: Nakaoka/Roberts; Radiance: Peter Marino Architects; Salon Prive: Peter Marino Architect; The Spa at ARIA: SUPERPOTATO / Flewellyn & Moody; Sky Villas—Presidential Suites: Peter Marino Architect; Julian Serrano: Gente de Valor; Gold Lounge: CLEO Design; American Fish: SLDesign LLC; Skybox: Remedios Siemedia; The Deuce: Franklin Studios; City Bar: Remedios Siembieda; Liquid: Graft LLC; Spin: Peter Marino Architect; Lighting Designers: Fisher Marantz Stone; Derek Porter; Horton Lees Brogden; Brandston Partnership; HE Banks; L’Observatoire International;

ALG; Illuminating Concepts; Domingo Gonzalez; Engineering Consultants: Jaffee Holden; ADA—Accessibility: Access by Design; Audio Visual: PMK; Acoustical Design: PMK; Baggage Handling: Lerch Bates; Commissioning: TestMarc; County Coordination: R.D. Weber & Assoc.; Curtain Wall Design: Israel Berger; Door Hardware: Consolidated; Fire—Life Safety—Code: RJA; Food Service: Romano Gatland / Culinary Design + Fixture; Fountains—Waterfeatures: WET Design; MEP: Flack & Kurtz; MEP (Sinatra Garage): Aguirre Corp; Kitchen—Food Service: Romano Gatland; Landscape: Field Operations; LEED: Green Building Services; Parking: Walter P. Moore; Peer Review—Structural: Saiful/Bouquet; Peer Review—MEP: SH Nevada; Pool Equipment: Aquatic Design; Roofing—Waterproofing: D7 Consulting; Security: PMK; Security—Construction Revisions: Con Tech; Signage: Selbert Perkins / Hunt / Gensler; Structural Engineering: Thornton-Tomasetti; Structural (Sinatra Garage): Jessen Wright / Walter P. Moore; Telecommunications: Flack & Kurtz; Theater: Auerbach; Vertical Transportation: Lerch Bates; Vibration Planner: Tacet; Waterscape: Aquatic Design; Wind Engineering: RWDI; Window Washing: Citadel

Block B:

- Vdara Hotel & Spa—57-story hotel with 1,495 hotel residences (534–1,623 sq ft)

Design Architect: Rafael Viñoly Architects; Architect (Bellagio Employee Garage): HKS; Architect of Record: Leo A. Daly; Associate Architect (Fire Station): Winston Henderson Architects; Associate Architect (Residential Units): Hamilton Anderson; Interior Designers: Hotel Tower: BBGM; Back of House: Leo A. Daly; Fitness Center: Dumbell Man Fitness Equipment; Bar Vdara: Therese Virserius Design; Retail: Karim Rashid; Spa—Salon: Robert D. Henry Architects; Silk Road: Karim Rashid; Engineering Consultants: Acoustical Design: PMK; Accessibility: Equal Access / Access by Design; Audio-Visual: Network / PMK; Civil Engineering: Lochsa; Commissioning: Glumac; Curtain Wall Design: Curtain Wall Design & Consulting; Energy Modeling: Syska Hennessy; Environmental—Air Quality: TRC; Environmental: PBS&J; Fire—Life Safety—Code: RJA; Food Service: JEM / Romano Gatland; Geotechnical: Terracon Consulting Engineers; Hardware: Assa Abloy; IT—Telecom: Network; Wireless Reinforcement Project: Flack & Kurtz; Landscape Architect: Melendrez; LEED Consultant: Viridian / Steven Winter; Lighting Design: Cline Bettridge Bernstein; MEP Engineer: Cosentini Associates; MEP (Bellagio Employee Garage): Cosentini / TJK; MEP (Fire Station): TJK; Pool—Spa Engineering: STO Design Group; Pool Design: Kinsella; Quality Assurance: Capri; Security: PMK; Signage (Bellagio Employee Garage): HKS; Signage: Two Twelve Harakawa; Structural Engineering (Harmon): Lockwood Andrews & Newman; Structural Engineering: DeSimone; Traffic: Kimley-Horn; Vertical Transportation: Lerch Bates; Wind Engineering: RWDI; Window Washing: Entek Engineering

Block C:

- Mandarin Oriental, Las Vegas—45-story hotel/ residence tower (1,223,192 sq ft) with 392 guest-rooms, including 89 suites, and 227 residences (1,068–3,856 sq ft);
- The Harmon Hotel—26-story hotel (635,897 sq ft) with 400 guestrooms, including 102 suites;
- Crystals Retail and Entertainment District—(752,442 sq ft) with 62 retail spaces and 12 food and beverage spaces, and PeopleMover station;
- Veer Towers—Two 37-story residence towers (857,886 sq ft total) with 335 residences each (486–3,290 sq ft)

Design Architect (Mandarin Oriental): Kohn Pederson Fox; Design Architect (The Harmon Hotel): Foster + Partners; Design Architect (Veer Towers): Murphy/Jahn; Design Architect (Crystals): Studio Daniel Libeskind with Rockwell Group; Architect of Record: Adamson Associates Architects; Associate Architect: Hamilton Anderson; Interior Designers: Back of House: Hamilton Anderson; Guestrooms (Harmon): Munge Leung; Hotel Guestrooms (Mandarin): Tihany Design; Hotel Podium (Harmon): SADI; Residential (Mandarin): Page and Steele / Tihany Design / Thomas Schoos Design / Kay Lang + Associates (Mandarin); Interior

Design (Crystals): Rockwell Group; Public Spaces (Veer): Murphy/Jahn; Residential Units (Veer): Dianna Wong; Retail: Deborah Berke; Engineering Consultants: Acoustical Design: Shen Milsom & Wilke; ADA: Access by Design; Audio Visual: Shen Milsom & Wilke / John Lyons; Commissioning: Glumac; Curtain Wall (Harmon): Yolles; Curtain Wall (Mandarin): Front / ALT; Door Hardware: David Sissom; Exterior Energy: Flack & Kurtz; Fire—Life Safety—Code: RJA; Geotechnical: GeoDesign; Acoustical Design: Shen Milsom & Wilke; Civil Engineering: Lochsa Engineering; Curtain Wall (Veer): Werner Sobek / Israel Berger / ALT; Curtain Wall (Retail): Israel Berger; Façade (Veer): Israel Berger; Food Service: Romano Gatland; Fountains and Water Features: WET Design; IT—Telecom: Flack & Kurtz; Kitchen—Food Service: Romano Gatland; Landscape (Harmon): Martha Schwartz; Landscape (Mandarin): Hargreaves Associates; Landscape (Crystals): Dirt; Landscape (Veer): Office of James Burnett / Martha Schwartz; LEED Consultant: The Fore Group; Fire—Life Safety—Code: RJA; Lighting (Harmon): Focus / Illuminating Concepts; Lighting (Mandarin): Isometrix / Illuminating Concepts; Lighting Exterior (Veer): AIK / Illuminating Concepts; Lighting (Veer): L-Plan / Illuminating Concepts; Lighting (Crystals): Focus; MEP Engineering: Flack & Kurtz; OSHA (Crystals): Cal Nev / Ranch; Parking: Rich / WPM; Pool—Fountain: STO Design Group; Spa—Salon (Harmon): S. Russell Groves; Security: Flack & Kurtz; Signage (Mandarin): Poulin & Morris; Signage Interior (Crystals): Gensler; Signage Interior (Veer): Hunt Design; Spa (Harmon): Richardson Sadeki; Spa—Salon (Mandarin): Tihany Design / Deckleman; Structural Engineering: Halcrow Yolles; Sustainability (Harmon, Crystals, Veer): Buro Happold; Sustainability (Mandarin): Atelier Ten; Vertical Transportation: Lerch Bates; Waste Management: Cini Little; Wind Engineering: RWDI; Window Washing: ENTEK Engineering, PLLC

Project-wide elements:

- PeopleMover track-way and 3 stations
- Below-grade parking, servicing, circulation
- Streets and street furniture
- Wayfinding landmark elements
- Directional signage and graphics
- Residential Sales and Marketing Pavilion

Design Architect: Gensler; Conceptual Master Plan: Ehrenkrantz Eckstut & Kuhn; Architect of Record: Gensler; Executive LEED Consultant: CTG Energetics; Commissioning: SKG; Dewatering: PBS&J; Civil Engineering: Lochsa; Fire—Life Safety—Code: RJA; Geotechnical: Owens; Irrigation and Landscape: Office of James Burnett; OSHA: Cal-Nev; Parking: KaKu; Peer Review—Lighting: Illuminating Concepts; Peer Review—MEP: SH Nevada; Peer Review—Structural: Saiful/Bouquet; PeopleMover System: Doppelmayr; PeopleMover Consultant: Lea & Elliott; Permitting: Hyde Consulting; Quality Assurance: Capri; Risk Management: FM Global; Soils: GeoDesign; Sustainability: KMI Associates / Gensler; Traffic: Kimley-Horn; Fountains—Waterfeatures: WET Design; Wayfinding—Signage: Gensler; Wind Testing: RWDI

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Brand Design
Commercial Office Buildings
Consulting
Education
Financial Services Firms
Headquarters
Hospitality
Mission Critical

Mixed Use & Entertainment
Planning & Urban Design
Product Design
Professional Services Firms
Retail
Retail Centers
Sports
Workplace

Locations

Abu Dhabi UAE	Denver	Morristown	Seattle
Atlanta	Detroit	New York	Shanghai CN
Austin	Dubai UAE	Newport Beach	Singapore RS
Baltimore	Houston	Phoenix	Tampa
Beijing CN	La Crosse	San Diego	Tokyo JP
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