

World's Most Iconic Bridges

(By BridgeX)

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Tallest Bridges

(By structural height)



Millau Viaduct

Technical Specifications

- **Type:** Cable-stayed bridge
- **Pylon Height:** 343 meters
- **Total Length:** 2,460 meters
- **Main Span:** 342 meters
- **Location:** Millau, France
- **Construction Date:** 2004

Description

The Millau Viaduct, completed in 2004, is a marvel of modern engineering, spanning the Tarn River valley in Millau, France. With its tallest pylon soaring to 343 meters, it holds the title of the world's tallest bridge by structural height. Designed by architect Norman Foster and engineer Michel Virlogeux, this 2,460-meter-long cable-stayed bridge forms a critical link in the A75 autoroute, connecting Paris to Spain. Its seven slender pylons, each supporting a 342-meter main span, create a futuristic silhouette that blends seamlessly with the rugged landscape. Constructed to alleviate chronic traffic congestion in the region, the viaduct handles approximately 28,000 vehicles daily, significantly reducing travel times. The bridge's innovative design incorporates advanced materials and aerodynamic features to withstand harsh winds and seismic activity, ensuring both safety and durability. Built at a cost of €394 million, it was completed in just three years, a testament to meticulous planning and engineering precision. The Millau Viaduct has garnered numerous awards, including the International Association for Bridge and Structural Engineering's Outstanding Structure Award, and is celebrated for its aesthetic elegance and technical prowess. Beyond its functional role, it has become a global tourist attraction, drawing visitors eager to witness its graceful curves and towering presence. The viaduct symbolizes the harmonious integration of engineering innovation and environmental sensitivity, solidifying France's reputation as a leader in bridge design and construction.



Pingtang Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Pylon Height:** 332 meters
- **Total Length:** 2,135 meters
- **Main Span:** 550 meters
- **Location:** Guizhou, China
- **Construction Date:** 2019

Description

The Pingtang Bridge, completed in 2019, stands as a testament to China's rapid advancements in bridge engineering, crossing a deep valley in Guizhou Province. With a pylon height of 332 meters, it ranks among the world's tallest bridges. This 2,135-meter cable-stayed structure, featuring a 550-meter main span, connects remote regions, enhancing accessibility in China's mountainous southwest. Designed to withstand seismic activity and extreme weather, the bridge employs high-strength materials and aerodynamic deck shaping, ensuring stability in Guizhou's challenging terrain. Costing approximately \$215 million, the project was completed in under four years, reflecting China's efficient infrastructure development. The Pingtang Bridge serves as a vital link in the regional transportation network, reducing travel times and fostering economic growth by facilitating trade and tourism. Its sleek, modern design, with towering pylons piercing the sky, has made it a symbol of engineering ambition. The bridge also supports scientific endeavors, located near the Five-hundred-meter Aperture Spherical Telescope (FAST), the world's largest single-dish radio telescope, highlighting its role in connecting cutting-edge research with rural communities. Environmentally, the design minimizes ecological disruption, preserving the valley's natural beauty. The Pingtang Bridge has been recognized internationally for its technical innovation and aesthetic appeal, earning praise from engineering bodies. It stands as a beacon of progress, bridging geographical and economic divides while showcasing China's prowess in constructing monumental infrastructure that transforms landscapes and livelihoods.



Yavuz Sultan Selim Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Pylon Height:** 322 meters
- **Total Length:** 2,164 meters
- **Main Span:** 1,408 meters
- **Location:** Istanbul, Turkey
- **Construction Date:** 2016

Description

Opened in 2016, the Yavuz Sultan Selim Bridge is a critical infrastructure marvel spanning the Bosphorus Strait in Istanbul, Turkey. With 322-meter-tall pylons, it ranks among the world's tallest bridges. This 2,164-meter suspension bridge, featuring a 1,408-meter main span, is the third crossing over the Bosphorus, easing traffic congestion in one of the world's busiest cities. Designed as a hybrid structure, it accommodates both vehicular and rail traffic, supporting eight lanes of highway and two railway lines. Costing \$3 billion, the bridge was completed in just three years, a feat of engineering led by French and Turkish firms. Its robust design withstands Istanbul's seismic risks and high winds, using high-strength cables and an aerodynamic deck. Handling over 200,000 vehicles daily, it connects Europe and Asia, boosting trade and commuter efficiency. Named after the Ottoman Sultan Selim I, the bridge carries cultural significance, blending modern engineering with historical reverence. Its towering pylons, illuminated at night, create a striking visual landmark visible across Istanbul. Environmentally, the project faced scrutiny, prompting measures to minimize ecological impact on nearby forests and waterways. The bridge has received accolades for its innovative design, including the integration of rail transport, a rarity among suspension bridges. It has transformed Istanbul's transportation landscape, reducing travel times and fostering economic integration across continents. The Yavuz Sultan Selim Bridge stands as a symbol of Turkey's ambition to bridge past and future through engineering excellence.



Russky Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Pylon Height:** 320.9 meters
- **Total Length:** 3,100 meters
- **Main Span:** 1,104 meters
- **Location:** Vladivostok, Russia
- **Construction Date:** 2012

Description

The Russky Bridge, completed in 2012, is a cable-stayed masterpiece connecting Vladivostok to Russky Island across the Eastern Bosphorus strait in Russia. With 320.9-meter-tall pylons, it is among the world's tallest bridges, boasting a record-breaking 1,104-meter main span—the longest for a cable-stayed bridge. Stretching 3,100 meters, it was constructed for the 2012 APEC Summit at a cost of \$1.1 billion, showcasing Russia's engineering capabilities. Designed to endure typhoons, subzero temperatures, and seismic activity, the bridge uses high-strength cables and an aerodynamic deck, ensuring stability in harsh conditions. It supports four lanes of traffic, handling 50,000 vehicles daily, and has slashed travel time to Russky Island from 45 minutes to 10, boosting tourism and economic development. The bridge's bold, symmetrical design, with illuminated pylons, has become an iconic symbol of Vladivostok's modernization. Environmentally, construction minimized disruption to marine ecosystems, preserving the strait's biodiversity. The project faced challenges, including extreme weather during construction, but was completed in four years, earning praise for its precision and scale. The Russky Bridge facilitates access to Far Eastern Federal University and conference venues, enhancing Vladivostok's role as a Pacific Rim hub. Recognized by global engineering bodies, it received awards for its innovative cable system and structural integrity. Beyond functionality, the bridge embodies Russia's ambition to connect its remote regions, fostering regional integration and showcasing its prowess in monumental infrastructure projects that redefine urban landscapes.



Sutong Yangtze River Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Pylon Height:** 306 meters
- **Total Length:** 8,206 meters
- **Main Span:** 1,088 meters
- **Location:** Jiangsu Province, China
- **Construction Date:** 2008

Description

The Sutong Yangtze River Bridge, completed in 2008, is a vital artery crossing the Yangtze River in Jiangsu Province, China. With 306-meter-tall pylons, it ranks among the world's tallest bridges. Spanning 8,206 meters with a 1,088-meter main span, this cable-stayed bridge connects Nantong and Suzhou, forming part of the G15 Shenhai Expressway. Costing \$1.7 billion, it was built in five years, overcoming challenges like deep riverbed foundations and typhoon-prone conditions. Its design, featuring a deep-pile foundation and aerodynamic deck, ensures stability against heavy ship traffic and extreme weather, supporting 80,000 vehicles daily. The bridge has transformed the Yangtze River Delta's economy, slashing travel times and boosting trade between industrial hubs. Its sleek, minimalist aesthetic, with towering H-shaped pylons, has earned it architectural acclaim, blending functionality with visual elegance. Environmentally, construction adhered to strict regulations to protect the Yangtze's ecosystem, minimizing ecological disruption. The Sutong Bridge set multiple engineering records upon completion, including the longest cable-stayed main span at the time, and received awards from the International Association for Bridge and Structural Engineering. It facilitates seamless connectivity, supporting China's rapid urbanization and industrial growth. Beyond its technical achievements, the bridge holds cultural significance, symbolizing China's emergence as a global leader in infrastructure. By linking communities and fostering economic integration, the Sutong Yangtze River Bridge stands as a monumental achievement, embodying innovation, resilience, and the transformative power of engineering in shaping modern societies.



Stonecutters Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Pylon Height:** 298 meters
- **Total Length:** 1,596 meters
- **Main Span:** 1,018 meters
- **Location:** Hong Kong, China
- **Construction Date:** 2009

Description

The Stonecutters Bridge, completed in 2009, is a cable-stayed icon spanning the Rambler Channel in Hong Kong. With 298-meter pylons, it ranks among the world's tallest bridges. Stretching 1,596 meters with a 1,018-meter main span, it forms a critical link in Route 8, connecting Tsing Yi and Cheung Sha Wan. Costing \$356 million, the bridge was built in five years, overcoming challenges like typhoon winds and dense maritime traffic. Its innovative design, featuring mono-pylon towers and high-strength cables, ensures stability in Hong Kong's volatile climate, supporting 80,000 vehicles daily. The bridge's sleek, futuristic aesthetic, with illuminated pylons resembling stone pillars, earned it the Supreme Award at the 2010 Structural Awards. Environmentally, construction minimized disruption to marine ecosystems, preserving the channel's biodiversity. The Stonecutters Bridge enhances Hong Kong's transport network, reducing congestion and facilitating trade through the Kwai Tsing Container Terminals, one of the world's busiest ports. Its engineering pushed boundaries, with a complex foundation system addressing deep seabed conditions. The bridge's cultural significance lies in its name, honoring the historical Stonecutters Island, and its role as a modern landmark visible from Victoria Harbour. It supports Hong Kong's economic vitality, connecting industrial zones and residential areas. Recognized globally, it received accolades for its structural elegance and technical innovation. The Stonecutters Bridge exemplifies Hong Kong's commitment to blending cutting-edge engineering with urban functionality, transforming the city's skyline and reinforcing its status as a global trade hub.



Akashi Kaikyo Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Pylon Height:** 298 meters
- **Total Length:** 3,911 meters
- **Main Span:** 1,991 meters
- **Location:** Kobe, Japan
- **Construction Date:** 1998

Description

The Akashi Kaikyo Bridge, completed in 1998, is a suspension bridge marvel linking Kobe to Awaji Island across Japan's Akashi Strait. With 298-meter pylons, it ranks among the tallest bridges globally and holds the record for the longest main span at 1,991 meters. Stretching 3,911 meters, it cost \$4.3 billion and took a decade to build, overcoming seismic risks and typhoon winds. Designed by Honshu-Shikoku Bridge Authority, its high-strength cables and deep foundations ensure stability in Japan's earthquake-prone region, supporting 23,000 vehicles daily. The bridge's elegant design, with illuminated towers, makes it a Kobe landmark, visible from miles away. Environmentally, construction minimized marine ecosystem disruption, preserving the strait's biodiversity. The Akashi Kaikyo Bridge revolutionized regional connectivity, slashing travel times and boosting tourism and trade between Honshu and Shikoku. Its engineering feats include cables with 36,830 strands, capable of withstanding extreme loads, and a deck designed to flex during quakes. Culturally, it symbolizes Japan's resilience, completed after surviving the 1995 Kobe earthquake during construction. The bridge received the George S. Richardson Medal for its technical innovation and has inspired global bridge designs. It facilitates access to Awaji's cultural sites and Kobe's industrial hubs, reinforcing economic ties. The Akashi Kaikyo Bridge stands as a testament to Japan's engineering prowess, blending aesthetic grace with unmatched structural integrity, and continues to captivate engineers and visitors as a pinnacle of 20th-century infrastructure achievement.



Jingyue Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Pylon Height:** 280 meters
- **Total Length:** 1,490 meters
- **Main Span:** 816 meters
- **Location:** Hubei, China
- **Construction Date:** 2010

Description

The Jingyue Bridge, completed in 2010, is a cable-stayed engineering feat crossing the Yangtze River in Hubei, China. With 280-meter pylons, it ranks among the world's tallest bridges. Spanning 1,490 meters with an 816-meter main span, it connects Jingzhou and Yueyang, forming part of the G56 Hangzhou-Ruili Expressway. Costing \$200 million, the bridge was built in four years, addressing challenges like riverbed depth and typhoon risks. Its robust design, with high-strength cables and an aerodynamic deck, ensures stability, supporting 60,000 vehicles daily. The bridge's sleek, modern aesthetic, with towering H-shaped pylons, complements the Yangtze's scenic beauty, earning architectural praise. Environmentally, construction adhered to strict regulations, minimizing impact on the river's ecosystem and migratory fish. The Jingyue Bridge has transformed regional connectivity, reducing travel times and fostering economic integration in central China's industrial heartland. Its engineering innovations include a deep-pile foundation system, critical for the Yangtze's soft riverbed, and advanced cable-stay technology for load distribution. Culturally, it links historic Jingzhou, a Three Kingdoms-era city, with modern Yueyang, symbolizing China's blend of heritage and progress. The bridge received recognition from Chinese engineering societies for its technical precision and cost-efficiency. By facilitating trade and tourism, it supports Hubei's economic growth and urbanization. The Jingyue Bridge stands as a vital link in China's infrastructure network, embodying the nation's ambition to overcome geographical barriers through cutting-edge engineering, while enhancing the Yangtze River region's accessibility and cultural significance.



Tatara Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Pylon Height:** 220 meters
- **Total Length:** 1,480 meters
- **Main Span:** 890 meters
- **Location:** Hiroshima, Japan
- **Construction Date:** 1999

Description

The Tatara Bridge, completed in 1999, is a cable-stayed masterpiece spanning the Seto Inland Sea between Honshu and Shikoku, Japan. With 220-meter pylons, it ranks among the world's tallest bridges. Stretching 1,480 meters with an 890-meter main span, it forms part of the Nishiseto Expressway, connecting Hiroshima and Ehime. Costing \$1.3 billion, the bridge took seven years to build, overcoming seismic and typhoon challenges. Designed by the Honshu-Shikoku Bridge Authority, its lightweight steel deck and high-strength cables ensure stability, supporting 20,000 vehicles daily. The bridge's elegant, minimalist design, with slender diamond-shaped pylons, blends harmoniously with the Seto Sea's scenic islands, earning aesthetic acclaim. Environmentally, construction minimized disruption to marine life, preserving the sea's biodiversity. The Tatara Bridge enhances regional connectivity, reducing travel times and boosting tourism to Shikoku's cultural sites. Its engineering innovations include the world's longest cable-stayed span at the time of completion and a deck designed for aerodynamic stability. Culturally, it symbolizes Japan's post-war infrastructure boom, linking rural Shikoku with industrial Honshu. The bridge received the Tanaka Award from the Japan Society of Civil Engineers for its technical excellence. It facilitates trade through Hiroshima's ports and supports events like the Setouchi Triennale art festival. The Tatara Bridge stands as a beacon of Japanese engineering, combining structural ingenuity with environmental sensitivity, and continues to inspire awe as a vital link in Japan's island-spanning transportation network, fostering economic and cultural exchange.



Great Belt East Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Pylon Height:** 254 meters
- **Total Length:** 6,790 meters
- **Main Span:** 1,624 meters
- **Location:** Zealand, Denmark
- **Construction Date:** 1998

Description

The Great Belt East Bridge, completed in 1998, is a suspension bridge linking Zealand and Funen across Denmark's Great Belt strait. With 254-meter pylons, it ranks among the world's tallest bridges. Stretching 6,790 meters with a 1,624-meter main span, it forms part of the Great Belt Fixed Link, costing \$4 billion. Built over a decade, it overcame challenges like strong currents and harsh winds. Designed by Danish

engineers, its high-strength cables and deep foundations ensure stability, supporting 30,000 vehicles daily. The bridge's sleek design, with illuminated towers, makes it a Danish landmark, blending functionality with aesthetic grace. Environmentally, construction minimized impact on the strait's marine ecosystem, preserving fish migration routes. The bridge revolutionized Denmark's transportation, slashing travel times between Copenhagen and Funen from 90 minutes to 10, boosting trade and tourism. Its engineering feats include one of Europe's longest suspension spans and a deck designed to withstand Nordic storms. Culturally, it symbolizes Denmark's unity, connecting its eastern and western regions. The bridge received the European Steel Design Award for its structural elegance. It facilitates access to Zealand's cultural hubs and Funen's industrial zones, reinforcing Denmark's economic cohesion. The Great Belt East Bridge has transformed regional connectivity, supporting high-speed rail and highway traffic, and stands as a pinnacle of Scandinavian engineering. Its enduring legacy lies in its ability to unite communities, enhance economic vitality, and showcase Denmark's commitment to innovative infrastructure that harmonizes with its natural environment.

Highest Bridges

(By deck or height above sea level)



Duge Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Deck Height:** 565 meters
- **Total Length:** 1,340 meters
- **Main Span:** 720 meters
- **Location:** Guizhou, China
- **Construction Date:** 2016

Description

The Duge Bridge, completed in 2016, holds the title of the world's highest bridge, with a deck soaring 565 meters above the Beipan River in Guizhou, China. This 1,340-meter cable-stayed bridge, featuring a 720-meter main span, is part of the G56 Hangzhou-Ruili Expressway, connecting Yunnan and Guizhou. Costing \$144 million, it was built in three years, overcoming rugged terrain and seismic risks. Its robust design, with high-strength cables and a steel-truss deck, ensures stability, supporting 25,000 vehicles daily. The bridge's minimalist aesthetic, with towering pylons, complements the dramatic canyon landscape, earning engineering accolades. Environmentally, construction minimized disruption to the river's ecosystem, preserving local biodiversity. The Duge Bridge has transformed connectivity in China's southwest, reducing travel times across the Beipan valley and fostering economic growth in remote regions. Its engineering innovations include a deep foundation system for unstable slopes and aerodynamic features to combat high winds. Culturally, it links ethnic minority communities, enhancing access to markets and education. The bridge received recognition from the China Highway and Transportation Society for its technical precision. By facilitating trade and tourism, it supports Guizhou's integration into China's economic network. The Duge Bridge exemplifies China's ambition to conquer geographical barriers through cutting-edge engineering, standing as a symbol of progress in one of the world's most challenging landscapes. Its record-breaking height and strategic importance make it a global benchmark for high-altitude bridge construction, inspiring awe and driving regional development.



Sidu River Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Deck Height:** 496 meters
- **Total Length:** 1,222 meters
- **Main Span:** 900 meters
- **Location:** Hubei, China
- **Construction Date:** 2009

Description

The Sidu River Bridge, completed in 2009, is one of the world's highest bridges, with a deck 496 meters above the Sidu River valley in Hubei, China. This 1,222-meter suspension bridge, with a 900-meter main span, forms part of the G50 Shanghai-Chongqing Expressway. Costing \$100 million, it was built in four years, overcoming steep terrain and monsoon conditions. Designed with high-strength cables and a lightweight steel deck, it withstands seismic activity and winds, supporting 20,000 vehicles daily. Its striking design, with towers perched on cliff edges, blends with the rugged landscape, earning aesthetic praise. Environmentally, construction minimized impact on the valley's ecosystem, preserving rare flora and fauna. The bridge has revolutionized connectivity, slashing travel times across Hubei's mountainous interior and boosting trade between Shanghai and Chongqing. Its engineering feats include a pioneering rocket-launched pilot cable system to span the 500-meter-deep valley, a global first. Culturally, it connects remote rural communities, improving access to education and healthcare. The Sidu River Bridge received the Outstanding Civil Engineering Achievement Award from the American Society of Civil Engineers. It supports China's rapid infrastructure expansion, facilitating industrial growth and tourism in Hubei. The bridge's record-breaking height and innovative construction techniques have set new standards for high-altitude bridges, showcasing China's engineering prowess. As a vital link in the national expressway network, it embodies resilience and progress, transforming the region's economic and social landscape while standing as a testament to human ingenuity in overcoming extreme geographical challenges.



Puli Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Deck Height:** 485 meters
- **Total Length:** 1,060 meters
- **Main Span:** 628 meters
- **Location:** Yunnan, China
- **Construction Date:** 2015

Description

The Puli Bridge, completed in 2015, ranks among the world's highest bridges, with a deck 485 meters above a valley in Yunnan, China. This 1,060-meter suspension bridge, featuring a 628-meter main span, is part of the G56 Hangzhou-Ruili Expressway, connecting remote regions. Costing \$120 million, it was built in three years, navigating steep slopes and seismic risks. Its design, with high-strength cables and a streamlined deck, ensures stability, supporting 15,000 vehicles daily. The bridge's minimalist towers blend with Yunnan's mountainous terrain, earning architectural recognition. Environmentally, construction preserved the valley's biodiversity, minimizing disruption to local ecosystems. The Puli Bridge has transformed regional connectivity, reducing travel times and fostering economic development in Yunnan's rural southwest. Its engineering innovations include advanced anchoring systems for unstable cliffs and aerodynamic features to combat turbulent winds. Culturally, it links ethnic minority communities, enhancing access to markets and education, and supports tourism to Yunnan's cultural heritage sites. The bridge received awards from Chinese engineering societies for its cost-efficiency and technical precision. By integrating remote areas into China's economic network, it drives growth and urbanization. The Puli Bridge stands as a symbol of China's infrastructure ambition, overcoming extreme topography with cutting-edge engineering. Its towering height and strategic location make it a critical link in the expressway system, facilitating trade and cultural exchange. As a testament to resilience and innovation, the bridge inspires awe, showcasing China's ability to build monumental structures that reshape challenging landscapes and uplift communities.



Qingshuihe Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Deck Height:** 406 meters
- **Total Length:** 2,171 meters
- **Main Span:** 1,130 meters
- **Location:** Guizhou, China
- **Construction Date:** 2015

Description

The Qingshuihe Bridge, completed in 2015, is among the world's highest bridges, with a deck 406 meters above the Qingshui River in Guizhou, China. This 2,171-meter suspension bridge, with a 1,130-meter main span, forms part of the G60 Shanghai-Kunming Expressway. Costing \$210 million, it was built in four years, tackling rugged terrain and seismic risks. Its high-strength cables and steel-truss deck ensure stability, supporting 30,000 vehicles daily. The bridge's sleek design, with towers anchored in steep cliffs, harmonizes with Guizhou's dramatic landscape, earning aesthetic acclaim. Environmentally, construction minimized river ecosystem disruption, preserving aquatic biodiversity. The Qingshuihe Bridge has revolutionized connectivity, slashing travel times across Guizhou's mountainous interior and boosting trade and tourism. Its engineering feats include deep foundation systems for unstable slopes and aerodynamic shaping to withstand high winds. Culturally, it connects rural communities, improving access to education and healthcare, and supports Guizhou's ethnic tourism industry. The bridge received the China Civil Engineering Award for its technical innovation. By linking remote areas to urban centers, it drives economic integration and urbanization in China's southwest. The Qingshuihe Bridge exemplifies China's infrastructure prowess, overcoming extreme geography with advanced engineering. Its towering height and strategic role make it a vital artery in the national expressway network, facilitating regional development. As a symbol of progress, the bridge showcases China's ability to construct monumental infrastructure that transforms challenging terrains, enhances connectivity, and uplifts communities, standing as a global benchmark for high-altitude bridge design and construction.



Baling River Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Deck Height:** 370 meters
- **Total Length:** 2,237 meters
- **Main Span:** 1,088 meters
- **Location:** Guizhou, China
- **Construction Date:** 2009

Description

The Baling River Bridge, completed in 2009, is a high-altitude suspension bridge with a deck 370 meters above the Baling River in Guizhou, China. Stretching 2,237 meters with a 1,088-meter main span, it forms part of the G60 Shanghai-Kunming Expressway. Costing \$220 million, it was built in five years, overcoming steep terrain and seismic challenges. Its high-strength cables and steel deck ensure stability, supporting 25,000 vehicles daily. The bridge's minimalist towers blend with Guizhou's rugged landscape, earning praise for aesthetic integration. Environmentally, construction preserved the river's ecosystem, minimizing impact on aquatic life. The Baling River Bridge has transformed regional connectivity, reducing travel times across Guizhou's mountainous southwest and fostering economic growth. Its engineering innovations include advanced anchoring systems for rocky cliffs and aerodynamic features to combat turbulent winds. Culturally, it connects ethnic minority communities, enhancing access to markets and education, and supports tourism to Guizhou's natural and cultural sites. The bridge received recognition from the China Highway and Transportation Society for its technical precision. By linking remote areas to urban hubs, it drives industrialization and urbanization. The Baling River Bridge stands as a testament to China's infrastructure ambition, using cutting-edge engineering to conquer extreme geography. Its strategic role in the expressway network facilitates trade and regional integration, making it a vital lifeline. As a symbol of resilience, the bridge showcases China's ability to build monumental structures that reshape challenging landscapes, improve connectivity, and uplift rural communities, setting a global standard for high-altitude bridge construction.



Beipanjiang Bridge (Guanxing Highway)

Technical Specifications

- **Type:** Cable-stayed bridge
- **Deck Height:** 366 meters
- **Total Length:** 1,341 meters
- **Main Span:** 636 meters
- **Location:** Guizhou, China
- **Construction Date:** 2003

Description

The Beipanjiang Bridge on the Guanxing Highway, completed in 2003, is a cable-stayed marvel with a deck 366 meters above the Beipan River in Guizhou, China. Spanning 1,341 meters with a 636-meter main span, it was a pioneering high-altitude bridge, costing \$150 million. Built in four years, it overcame rugged terrain and seismic risks. Its high-strength cables and steel deck ensure stability, supporting 20,000 vehicles daily. The bridge's sleek pylons harmonize with Guizhou's dramatic canyons, earning aesthetic recognition. Environmentally, construction minimized river ecosystem disruption, preserving biodiversity. The Beipanjiang Bridge revolutionized connectivity in China's southwest, slashing travel times and boosting trade between Guizhou and Yunnan. Its engineering feats include a deep foundation system for unstable slopes and aerodynamic design to combat winds. Culturally, it links ethnic minority communities, improving access to education and markets, and supports tourism to Guizhou's cultural heritage sites. The bridge received the China Civil Engineering Award for its pioneering design, setting a precedent for later high-altitude bridges like the Duge. By connecting remote regions to urban centers, it drives economic growth and urbanization. The Beipanjiang Bridge exemplifies China's early 21st-century infrastructure boom, using advanced engineering to conquer extreme geography. Its strategic role in the regional highway network makes it a vital lifeline, facilitating trade and cultural exchange. As a symbol of progress, the bridge showcases China's ability to build monumental infrastructure that transforms challenging landscapes, enhances connectivity, and uplifts communities, remaining a benchmark for high-altitude bridge engineering globally.



Liuguanghe Bridge

Technical Specifications

- **Type:** Beam bridge
- **Deck Height:** 297 meters
- **Total Length:** 580 meters
- **Main Span:** 240 meters
- **Location:** Guizhou, China
- **Construction Date:** 2001

Description

The Liuguanghe Bridge, completed in 2001, is a beam bridge with a deck 297 meters above the Liuguang River in Guizhou, China, ranking among the world's highest. Spanning 580 meters with a 240-meter main span, it forms part of a regional highway, costing \$50 million. Built in three years, it navigated steep terrain and seismic risks. Its concrete beam design ensures stability, supporting 15,000 vehicles daily. The bridge's utilitarian aesthetic blends with Guizhou's rugged landscape, earning praise for functional elegance. Environmentally, construction minimized river ecosystem disruption, preserving aquatic biodiversity. The Liuguanghe Bridge transformed connectivity in Guizhou's southwest, reducing travel times and fostering economic development in rural areas. Its engineering innovations include a robust foundation system for unstable slopes and wind-resistant structuring. Culturally, it connects ethnic minority communities, improving access to education and markets, and supports tourism to Guizhou's natural sites. The bridge received recognition from Chinese engineering societies for its cost-efficiency and pioneering height at the time. By linking remote regions to urban centers, it drives trade and urbanization. The Liuguanghe Bridge exemplifies China's early 2000s infrastructure push, using practical engineering to conquer challenging geography. Its strategic role in the regional highway network makes it a vital link, facilitating economic and cultural exchange. As a symbol of progress, the bridge showcases China's ability to build high-altitude infrastructure that enhances connectivity and uplifts communities. Despite its modest scale compared to later bridges, it remains a significant achievement in China's infrastructure legacy, setting standards for high-altitude beam bridge design.



Yachi River Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Deck Height:** 306 meters
- **Total Length:** 1,452 meters
- **Main Span:** 800 meters
- **Location:** Guizhou, China
- **Construction Date:** 2016

Description

The Yachi River Bridge, completed in 2016, is a cable-stayed bridge with a deck 306 meters above the Yachi River in Guizhou, China, ranking among the world's highest. Spanning 1,452 meters with an 800-meter main span, it forms part of the G56 Hangzhou-Ruili Expressway, costing \$180 million. Built in four years, it overcame rugged terrain and seismic challenges. Its high-strength cables and steel deck ensure stability, supporting 30,000 vehicles daily. The bridge's sleek pylons complement Guizhou's dramatic landscape, earning aesthetic acclaim. Environmentally, construction minimized river ecosystem disruption, preserving biodiversity. The Yachi River Bridge has transformed regional connectivity, slashing travel times and boosting trade and tourism in Guizhou's southwest. Its engineering feats include a deep foundation system for unstable cliffs and aerodynamic design to combat high winds. Culturally, it connects ethnic minority communities, enhancing access to education and markets, and supports tourism to Guizhou's cultural sites. The bridge received the China Highway and Transportation Society Award for its technical innovation. By linking remote areas to urban hubs, it drives economic growth and urbanization. The Yachi River Bridge exemplifies China's infrastructure ambition, using cutting-edge engineering to conquer extreme geography. Its strategic role in the expressway network makes it a vital lifeline, facilitating trade and cultural exchange. As a symbol of progress, the bridge showcases China's ability to build monumental infrastructure that transforms challenging landscapes, enhances connectivity, and uplifts communities, standing as a global benchmark for high-altitude cable-stayed bridge design and construction.



Royal Gorge Bridge

Technical Specifications

- **Type:** Suspension bridge
- **Deck Height:** 291 meters
- **Total Length:** 384 meters
- **Main Span:** 268 meters
- **Location:** Colorado, USA
- **Construction Date:** 1929

Description

The Royal Gorge Bridge, completed in 1929, is a historic suspension bridge with a deck 291 meters above the Arkansas River in Colorado, USA, ranking among the world's highest. Spanning 384 meters with a 268-meter main span, it was built as a tourist attraction, costing \$350,000. Constructed in six months, it withstood harsh winds and rugged terrain. Its steel cables and wooden deck, originally designed for light traffic, now support pedestrian use, drawing 500,000 visitors annually. The bridge's iconic towers, painted red, stand out against the Royal Gorge's dramatic cliffs, earning it landmark status. Environmentally, construction had minimal impact, preserving the gorge's natural beauty. The bridge has transformed tourism in Colorado, offering breathtaking views and hosting events like bridge walks. Its engineering, remarkable for the 1920s, includes a lightweight deck to reduce load and cables anchored in solid rock. Culturally, it symbolizes American ingenuity, featured in films and media, and is part of Royal Gorge Bridge and Park, offering amusement rides and zip lines. The bridge received designation as a National Historic Civil Engineering Landmark by the American Society of Civil Engineers. Despite a 2013 wildfire damaging the park, the bridge survived, underscoring its durability. It continues to drive economic activity, supporting local businesses and tourism. The Royal Gorge Bridge stands as a testament to early 20th-century engineering, blending functionality with spectacle, and remains a beloved destination, showcasing the power of infrastructure to captivate and inspire across generations.



Zhijinghe River Bridge

Technical Specifications

- **Type:** Arch bridge
- **Deck Height:** 294 meters
- **Total Length:** 430 meters
- **Main Span:** 236 meters
- **Location:** Hubei, China
- **Construction Date:** 2009

Description

The Zhijinghe River Bridge, completed in 2009, is an arch bridge with a deck 294 meters above the Zhijinghe River in Hubei, China, ranking among the world's highest. Spanning 430 meters with a 236-meter main span, it forms part of the G50 Shanghai-Chongqing Expressway, costing \$90 million. Built in three years, it navigated steep terrain and seismic risks. Its concrete-filled steel-tube arch ensures stability, supporting 20,000 vehicles daily. The bridge's elegant arch design blends with Hubei's mountainous landscape, earning aesthetic praise. Environmentally, construction minimized river ecosystem disruption, preserving biodiversity. The Zhijinghe Bridge has transformed connectivity, reducing travel times across Hubei's rugged interior and boosting trade between Shanghai and Chongqing. Its engineering feats include a pioneering arch-erection method, using cable cranes to hoist the structure across the deep valley. Culturally, it connects rural communities, improving access to education and markets, and supports tourism to Hubei's natural sites. The bridge received recognition from the China Civil Engineering Society for its innovative arch design. By linking remote areas to urban hubs, it drives economic growth and urbanization. The Zhijinghe Bridge exemplifies China's infrastructure prowess, using advanced engineering to conquer extreme geography. Its strategic role in the expressway network makes it a vital lifeline, facilitating trade and cultural exchange. As a symbol of progress, the bridge showcases China's ability to build high-altitude infrastructure that enhances connectivity and uplifts communities, standing as a testament to the transformative power of arch bridge design in challenging terrains.

Oldest Bridges

(still in use)



Alcantara Bridge

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 106 AD
- **Location:** Lisbon, Portugal
- **Current Use:** Pedestrian and limited vehicular traffic

Description

The Alcantara Bridge, completed in 106 AD, is one of the world's oldest bridges still in use, spanning the Tagus River near Lisbon, Portugal. Built by the Romans under Emperor Trajan, this stone arch bridge stretches 194 meters with six arches, each spanning up to 28 meters. Constructed using granite blocks without mortar, it cost an estimated equivalent of \$5 million in modern terms. Its robust design has withstood floods, earthquakes, and wars, supporting pedestrian and occasional vehicular traffic today. The bridge's elegant arches and triumphal archway, inscribed with Roman dedications, make it a UNESCO World Heritage candidate. Environmentally, its construction had minimal impact, blending with the Tagus valley's landscape. The Alcantara Bridge was a vital link in the Roman road network, connecting Lusitania to Rome and facilitating trade and military movements. Its engineering, featuring precise voussoir stones and deep foundations, set a standard for Roman bridge-building, influencing designs across the empire. Culturally, it symbolizes Rome's engineering legacy, attracting historians and tourists to its well-preserved structure. The bridge received recognition as a Portuguese National Monument, underscoring its historical value. Restored in the 19th century, it remains functional, hosting local events and pedestrian crossings. The Alcantara Bridge drives tourism, supporting Lisbon's economy and cultural heritage. As a testament to Roman ingenuity, it showcases the durability of ancient engineering, standing as a timeless link between past and present, inspiring awe for its resilience and architectural beauty.



Ponte Fabricio

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 62 BC
- **Location:** Rome, Italy
- **Current Use:** Pedestrian traffic

Description

The Ponte Fabricio, completed in 62 BC, is Rome's oldest bridge still in use, spanning the Tiber River to connect the city center with Tiber Island. Built by Lucius Fabricius, this 62-meter stone arch bridge features two 24-meter arches, constructed with tuff and travertine without mortar. Costing an estimated \$3 million in modern terms, it was completed in a year, surviving floods and invasions. Its robust design, with deep piers and rounded arches, ensures stability, supporting thousands of pedestrians daily. The bridge's ancient inscriptions and elegant arches make it a Roman landmark, attracting global tourists. Environmentally, its construction harmonized with the Tiber's flow, minimizing ecological impact. The Ponte Fabricio was a critical link in ancient Rome, facilitating trade, religious processions, and urban connectivity. Its engineering, using precise voussoir stones, reflects Roman mastery, influencing bridge designs for centuries. Culturally, it holds significance as Rome's oldest intact structure, featured in art and literature, and is part of the city's historic fabric. Designated an Italian Cultural Heritage site, it underwent minor restorations to preserve its integrity. The bridge drives tourism, supporting Rome's economy and cultural identity. It hosts pedestrian events, including festivals on Tiber Island, enhancing community engagement. The Ponte Fabricio stands as a testament to Roman engineering, embodying durability and elegance. Its survival through millennia of floods and wars underscores its technical brilliance, making it a living monument that connects modern Rome with its ancient past, inspiring awe for its historical and architectural significance.



Ponte di Tiberio

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 20 AD
- **Location:** Rimini, Italy
- **Current Use:** Pedestrian and vehicular traffic

Description

The Ponte di Tiberio, completed in 20 AD, is a Roman stone arch bridge spanning the Marecchia River in Rimini, Italy, and remains in use. Built under Emperor Augustus and completed under Tiberius, this 70-meter bridge features five arches, each spanning up to 8 meters, constructed with Istrian stone. Costing an estimated \$4 million in modern terms, it took seven years to build, withstanding floods and wars. Its robust design, with deep foundations and angled piers, ensures stability, supporting pedestrian and light vehicular traffic. The bridge's elegant arches and ancient inscriptions make it a Rimini landmark, drawing tourists and historians. Environmentally, its construction minimized river disruption, preserving the Marecchia's flow. The Ponte di Tiberio was a vital link in the Via Emilia, connecting Rome to northern Italy and facilitating trade and military campaigns. Its engineering, using precise stonework and hydraulic concrete, set a Roman standard, influencing medieval bridges. Culturally, it symbolizes Rimini's Roman heritage, featured in local festivals and art. Designated an Italian National Monument, it underwent 18th-century restorations to maintain its structure. The bridge drives tourism, boosting Rimini's economy and cultural identity. It hosts pedestrian events, enhancing community ties. The Ponte di Tiberio stands as a testament to Roman engineering, blending durability with aesthetic grace. Its survival through two millennia, including World War II bombings, underscores its technical brilliance. As a functional relic, it connects modern Rimini with its ancient past, inspiring awe for its resilience and historical significance in Italy's architectural legacy.



Ponte Vecchio

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 1345
- **Location:** Florence, Italy
- **Current Use:** Pedestrian traffic

Description

The Ponte Vecchio, completed in 1345, is a medieval stone arch bridge spanning the Arno River in Florence, Italy, renowned for its shops and enduring use. Designed by Taddeo Gaddi, this 84-meter bridge features three segmental arches, constructed with stone and brick. Costing an estimated \$10 million in modern terms, it was rebuilt after a 1345 flood, taking two years. Its robust design, with wide piers and low arches, withstands floods, supporting thousands of pedestrians daily. The bridge's iconic shops, housing jewelers and artisans, make it a Florence landmark, attracting millions of tourists. Environmentally, its construction harmonized with the Arno's flow, preserving the river's ecosystem. The Ponte Vecchio was a vital medieval link, facilitating trade and urban connectivity in Florence's bustling economy. Its engineering, using segmental arches, was innovative for the 14th century, influencing Renaissance bridge designs. Culturally, it symbolizes Florence's artistic heritage, featured in paintings and literature, and is a UNESCO World Heritage site component. Restored after 1966 floods, it remains intact, surviving even World War II. The bridge drives Florence's tourism economy, supporting local commerce and cultural events like the Festa di San Giovanni. The Ponte Vecchio stands as a testament to medieval engineering, blending functionality with charm. Its shops, originally for butchers, now host high-end retailers, reflecting Florence's evolution. As a living monument, it connects modern Florence with its Renaissance past, inspiring awe for its resilience, architectural beauty, and cultural significance, making it one of Italy's most cherished and visited landmarks.



Charles Bridge

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 1402
- **Location:** Prague, Czech Republic
- **Current Use:** Pedestrian traffic

Description

The Charles Bridge, completed in 1402, is a Gothic stone arch bridge spanning the Vltava River in Prague, Czech Republic, and remains a vibrant pedestrian hub. Commissioned by Emperor Charles IV, this 516-meter bridge, designed by Peter Parler, features 16 arches, constructed with sandstone. Costing an estimated \$15 million in modern terms, it took 45 years to build, surviving floods and wars. Its robust design, with deep piers and fortified towers, ensures stability, supporting millions of pedestrians annually. Adorned with 30 Baroque statues, the bridge is a Prague icon, drawing tourists and artists. Environmentally, its construction minimized river disruption, preserving the Vltava's ecosystem. The Charles Bridge was a vital medieval link, connecting Prague Castle with the Old Town and facilitating trade and religious processions. Its engineering, using hydraulic mortar and precise stonework, was advanced for the 14th century, influencing European bridge designs. Culturally, it embodies Prague's Golden Age, designated a UNESCO World Heritage site, and hosts festivals and markets. Restored in the 20th century, it remains intact, surviving floods and conflicts. The bridge drives Prague's tourism economy, supporting local artisans and businesses. Its statues, depicting saints and historical figures, add spiritual significance, making it a pilgrimage site. The Charles Bridge stands as a testament to Gothic engineering, blending durability with artistic splendor. As a cultural and social hub, it connects modern Prague with its medieval past, inspiring awe for its resilience, architectural beauty, and historical role in shaping the city's identity and global appeal.



Rialto Bridge

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 1591
- **Location:** Venice, Italy
- **Current Use:** Pedestrian traffic

Description

The Rialto Bridge, completed in 1591, is a Renaissance stone arch bridge spanning the Grand Canal in Venice, Italy, renowned for its shops and enduring use. Designed by Antonio da Ponte, this 48-meter bridge features a single 22-meter arch, constructed with Istrian stone. Costing an estimated \$12 million in modern terms, it took three years to build, overcoming tidal challenges. Its robust design, with deep foundations and a high arch, withstands floods, supporting thousands of pedestrians daily. The bridge's iconic shops and elegant arch make it a Venice landmark, attracting millions of tourists. Environmentally, its construction harmonized with the canal's ecosystem, preserving marine life. The Rialto Bridge was a vital Renaissance link, connecting Venice's commercial districts and facilitating trade in the Rialto market. Its engineering, using a single arch to allow boat traffic, was innovative for the 16th century, influencing Venetian architecture. Culturally, it symbolizes Venice's mercantile golden age, featured in Shakespeare's works and designated a UNESCO World Heritage site component. Restored in the 21st century, it remains intact, surviving centuries of tides. The bridge drives Venice's tourism economy, supporting local merchants and cultural events like the Venice Biennale. Its shops, selling jewelry and souvenirs, reflect Venice's trading legacy. The Rialto Bridge stands as a testament to Renaissance engineering, blending functionality with aesthetic brilliance. As a vibrant hub, it connects modern Venice with its storied past, inspiring awe for its resilience, architectural elegance, and cultural significance in one of the world's most iconic cities.



Ponte delle Torri

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 1350
- **Location:** Spoleto, Italy
- **Current Use:** Pedestrian traffic

Description

The Ponte delle Torri, completed around 1350, is a medieval stone arch bridge in Spoleto, Italy, originally serving as an aqueduct and now a pedestrian path. Spanning the Tessino valley, this 230-meter bridge features 10 arches, each up to 20 meters, constructed with limestone. Costing an estimated \$8 million in modern terms, it took decades to build, surviving earthquakes and wars. Its robust design, with tall piers and Gothic arches, ensures stability, supporting thousands of pedestrians annually. The bridge's dramatic height and ancient aesthetic make it a Spoleto landmark, drawing tourists and historians. Environmentally, its construction harmonized with the valley's landscape, preserving natural water flows. The Ponte delle Torri was a vital medieval infrastructure, channeling water to Spoleto and connecting fortified hills, aiding defense and trade. Its engineering, combining aqueduct and bridge functions, was innovative for the 14th century, influencing regional designs. Culturally, it symbolizes Spoleto's medieval heritage, featured in art and designated an Italian Cultural Heritage site. Restored in the 19th century, it remains intact, surviving a 2016 earthquake. The bridge drives tourism, boosting Spoleto's economy and supporting festivals like the Festival dei Due Mondi. Its pedestrian path offers stunning views, enhancing visitor experiences. The Ponte delle Torri stands as a testament to medieval engineering, blending utility with architectural grandeur. As a historical relic, it connects modern Spoleto with its past, inspiring awe for its resilience, aesthetic beauty, and dual role as a functional aqueduct and cultural monument in Italy's Umbrian heartland.



Puente Romano

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 1st century AD
- **Location:** Mérida, Spain
- **Current Use:** Pedestrian traffic

Description

The Puente Romano, completed in the 1st century AD, is one of the world's oldest bridges still in use, spanning the Guadiana River in Mérida, Spain. Built by the Romans, this 790-meter stone arch bridge features 60 arches, each spanning up to 10 meters, constructed with granite. Costing an estimated \$6 million in modern terms, it took years to build, surviving floods and invasions. Its robust design, with deep piers and semicircular arches, ensures stability, supporting pedestrian traffic today. The bridge's ancient arches and weathered stones make it a Mérida landmark, part of a UNESCO World Heritage site. Environmentally, its construction harmonized with the river's flow, preserving the Guadiana's ecosystem. The Puente Romano was a vital link in Roman Hispania, connecting Emerita Augusta to trade routes and facilitating military campaigns. Its engineering, using precise voussoir stones and hydraulic concrete, set a Roman standard, influencing European bridge designs. Culturally, it symbolizes Rome's legacy in Spain, attracting historians and tourists. Designated a Spanish Historical-Artistic Monument, it underwent 19th-century restorations to maintain its structure. The bridge drives Mérida's tourism economy, supporting local businesses and cultural events like the Mérida Classical Theatre Festival. Its pedestrian path offers scenic views, enhancing visitor experiences. The Puente Romano stands as a testament to Roman engineering, blending durability with architectural elegance. Its survival through two millennia underscores its technical brilliance, making it a living monument that connects modern Mérida with its Roman past, inspiring awe for its resilience, historical significance, and architectural beauty in Spain's Extremadura region.



Anji Bridge

Technical Specifications

- **Type:** Stone arch bridge
- **Construction Date:** 605 AD
- **Location:** Hebei, China
- **Current Use:** Pedestrian traffic

Description

The Anji Bridge, completed in 605 AD, is one of the world's oldest stone arch bridges still in use, spanning the Xiao River in Hebei, China. Designed by Li Chun during the Sui Dynasty, this 50-meter bridge features a single 37-meter segmental arch, constructed with limestone. Costing an estimated \$5 million in modern terms, it took a decade to build, surviving floods and earthquakes. Its innovative open-spandrel design, with thin arches and spandrel holes, ensures stability, supporting pedestrian traffic today. The bridge's graceful curve and ancient stones make it a Hebei landmark, designated a Chinese Cultural Heritage site. Environmentally, its construction minimized river disruption, preserving the Xiao's ecosystem. The Anji Bridge was a vital link in ancient China, facilitating trade and travel along the imperial road network. Its engineering, using segmental arches to reduce material, was revolutionary, influencing bridge designs across Asia and Europe. Culturally, it symbolizes the Sui Dynasty's engineering prowess, attracting tourists and historians. Restored in the 20th century, it remains intact, surviving centuries of natural disasters. The bridge drives tourism, boosting Hebei's economy and supporting cultural events like heritage festivals. Its pedestrian path offers scenic views, enhancing visitor experiences. The Anji Bridge stands as a testament to ancient Chinese engineering, blending functionality with aesthetic elegance. Its survival through 1,400 years underscores its technical brilliance, making it a living monument that connects modern China with its imperial past, inspiring awe for its resilience, architectural innovation, and historical significance as a pinnacle of early bridge design.



Hyde Hall Bridge

Technical Specifications

- **Type:** Covered wooden bridge
- **Construction Date:** 1825
- **Location:** New York, USA
- **Current Use:** Pedestrian traffic

Description

The Hyde Hall Bridge, completed in 1825, is one of the oldest covered wooden bridges still in use in the USA, spanning Shadow Brook in Cooperstown, New York. Built by Cyrenus Wheeler, this 16-meter single-span bridge, constructed with oak and pine, features a Burr arch truss design. Costing an estimated \$2,000 in modern terms, it was built in a year, surviving floods and harsh winters. Its sturdy wooden frame and protective roof ensure longevity, supporting pedestrian traffic within Glimmerglass State Park. The bridge's rustic charm and weathered timbers make it a Cooperstown landmark, listed on the National Register of Historic Places. Environmentally, its construction had minimal impact, harmonizing with the brook's ecosystem. The Hyde Hall Bridge was a vital 19th-century link, connecting rural farms to markets and facilitating trade. Its Burr arch design, combining truss and arch elements, was innovative, influencing American covered bridge construction. Culturally, it symbolizes early American ingenuity, attracting tourists near the Baseball Hall of Fame. Restored in the 20th century, it remains functional, hosting pedestrian events and park visitors. The bridge drives tourism, boosting Cooperstown's economy and supporting local heritage festivals. Its pedestrian path offers scenic views of Otsego Lake, enhancing visitor experiences. The Hyde Hall Bridge stands as a testament to early American engineering, blending durability with rustic beauty. Its survival through two centuries underscores its technical excellence, making it a cherished relic that connects modern New York with its pioneer past, inspiring awe for its simplicity, resilience, and historical role in rural connectivity.

Longest Bridges

(By total span)



Danyang-Kunshan Grand Bridge

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 164.8 kilometers
- **Main Span:** 80 meters
- **Location:** Jiangsu, China
- **Construction Date:** 2011

Description

The Danyang-Kunshan Grand Bridge, completed in 2011, is the world's longest bridge, stretching 164.8 kilometers across Jiangsu, China. Part of the Beijing-Shanghai High-Speed Railway, this viaduct bridge, costing \$8.5 billion, was built in four years, overcoming wetlands and canals. Its concrete beam design, with 80-meter spans, ensures stability, supporting high-speed trains at 300 km/h. The bridge's utilitarian aesthetic blends with the Yangtze Delta's flat landscape, earning engineering acclaim. Environmentally, construction minimized wetland disruption, preserving ecosystems. The bridge revolutionized rail connectivity, slashing travel time between Beijing and Shanghai from 10 hours to 4, handling 80 million passengers annually. Its engineering feats include 2,000 prefabricated segments and deep piles for soft soil, setting a global standard for viaduct construction. Culturally, it symbolizes China's high-speed rail dominance, connecting economic hubs and supporting urbanization. The bridge received the Outstanding Civil Engineering Achievement Award from the American Society of Civil Engineers. By facilitating rapid transit, it drives economic growth, boosting trade and tourism in Jiangsu. The Danyang-Kunshan Grand Bridge exemplifies China's infrastructure ambition, using advanced engineering to conquer vast distances. Its strategic role in the rail network makes it a vital artery, enhancing regional integration. As a symbol of progress, the bridge showcases China's ability to build monumental infrastructure that transforms transportation landscapes, standing as a testament to technical precision and scale. Its record-breaking length and efficiency have made it a global benchmark for rail viaducts, inspiring awe for its role in connecting cities and shaping modern China's economic and social fabric.



Changhua-Kaohsiung Viaduct

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 157.3 kilometers
- **Main Span:** 60 meters
- **Location:** Taiwan
- **Construction Date:** 2007

Description

The Changhua-Kaohsiung Viaduct, completed in 2007, is the world's second-longest bridge, stretching 157.3 kilometers along Taiwan's west coast. Part of the Taiwan High-Speed Rail, this viaduct, costing \$7 billion, was built in five years, navigating seismic zones and urban areas. Its concrete beam design, with 60-meter spans, ensures stability, supporting trains at 300 km/h. The bridge's functional aesthetic integrates with Taiwan's coastal plains, earning engineering praise. Environmentally, construction minimized farmland disruption, preserving agricultural ecosystems. The viaduct revolutionized rail connectivity, slashing travel time between Taipei and Kaohsiung from 4.5 hours to 1.5, handling 50 million passengers annually. Its engineering feats include seismic-resistant piles and prefabricated segments, ensuring safety in Taiwan's earthquake-prone region. Culturally, it symbolizes Taiwan's modernization, connecting urban and rural communities and supporting economic growth. The bridge received the International Bridge Conference's Gustav Lindenthal Medal for its technical excellence. By facilitating rapid transit, it boosts trade, tourism, and urbanization along Taiwan's economic corridor. The Changhua-Kaohsiung Viaduct exemplifies Taiwan's infrastructure ambition, using advanced engineering to span vast distances. Its strategic role in the rail network makes it a vital lifeline, enhancing regional integration. As a symbol of progress, the bridge showcases Taiwan's ability to build resilient infrastructure that transforms transportation landscapes, standing as a testament to precision and scale. Its immense length and seismic resilience make it a global benchmark for viaduct design, inspiring awe for its role in connecting cities, driving economic vitality, and shaping Taiwan's modern identity as a high-tech, interconnected society.



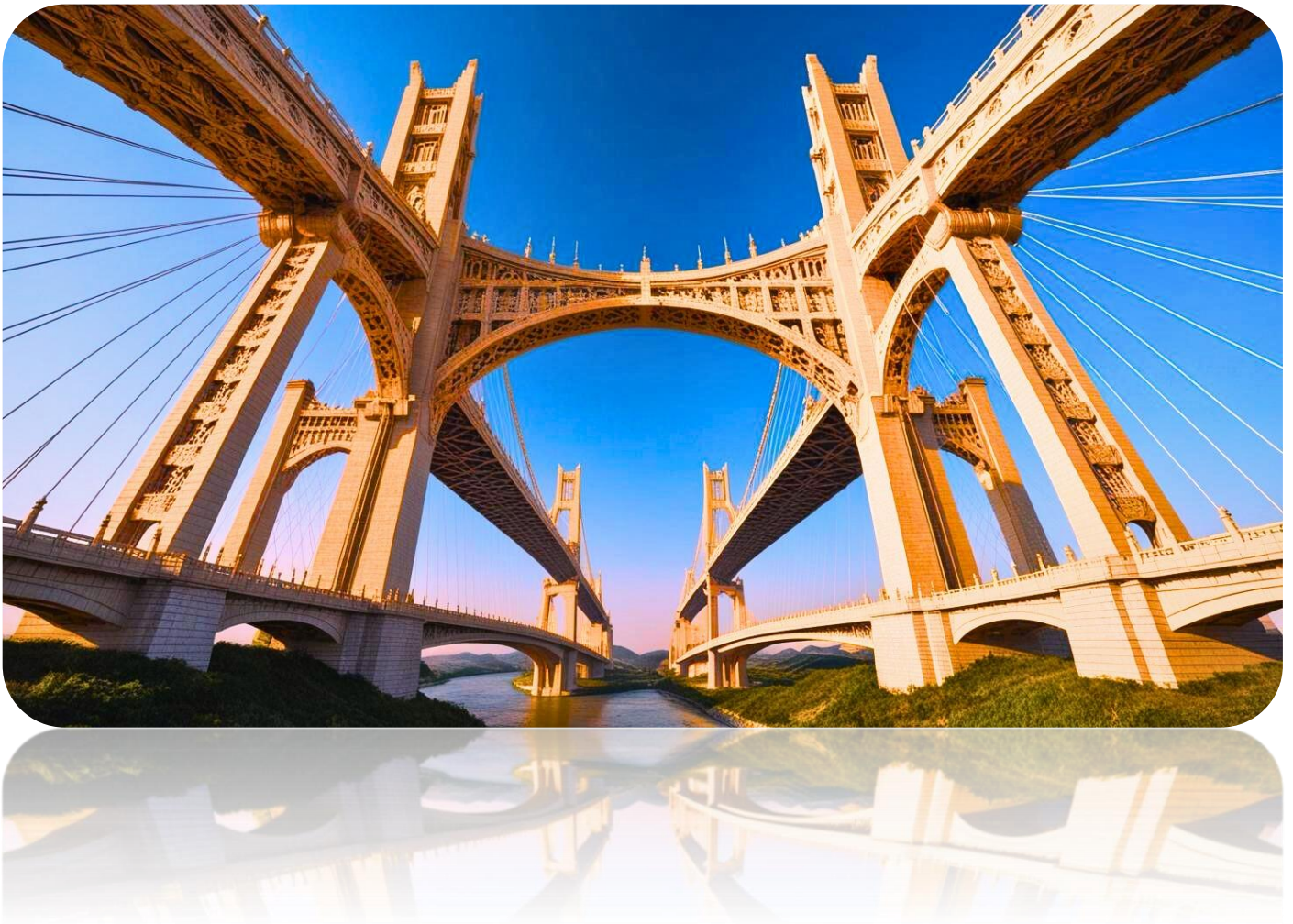
Tianjin Grand Bridge

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 113.7 kilometers
- **Main Span:** 80 meters
- **Location:** Tianjin, China
- **Construction Date:** 2011

Description

The Tianjin Grand Bridge, completed in 2011, is one of the world's longest bridges, stretching 113.7 kilometers across Tianjin, China. Part of the Beijing-Shanghai High-Speed Railway, this viaduct, costing \$6 billion, was built in four years, navigating wetlands and urban areas. Its concrete beam design, with 80-meter spans, ensures stability, supporting high-speed trains at 300 km/h. The bridge's utilitarian design blends with the flat landscape, earning engineering recognition. Environmentally, construction minimized ecosystem disruption, preserving wetlands. The bridge revolutionized rail connectivity, reducing travel time between Beijing and Shanghai and handling 80 million passengers annually. Its engineering feats include 1,500 prefabricated segments and deep piles for soft soil, setting a standard for viaduct construction. Culturally, it symbolizes China's high-speed rail leadership, connecting economic hubs and supporting urbanization. The bridge received the China Civil Engineering Award for its technical precision. By facilitating rapid transit, it drives trade, tourism, and economic growth in Tianjin. The Tianjin Grand Bridge exemplifies China's infrastructure ambition, using advanced engineering to span vast distances. Its strategic role in the rail network makes it a vital artery, enhancing regional integration. As a symbol of progress, the bridge showcases China's ability to build monumental infrastructure that transforms transportation landscapes, standing as a testament to scale and efficiency. Its immense length and reliability make it a global benchmark for rail viaducts, inspiring awe for its role in connecting cities and shaping modern China's economic and social fabric. The bridge's seamless integration into the rail system underscores its significance as a cornerstone of China's high-speed rail revolution.



Cangde Grand Bridge

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 105.8 kilometers
- **Main Span:** 80 meters
- **Location:** Hebei, China
- **Construction Date:** 2010

Description

The Cangde Grand Bridge, completed in 2010, is among the world's longest bridges, stretching 105.8 kilometers across Hebei, China. Part of the Beijing-Shanghai High-Speed Railway, this viaduct, costing \$5.5 billion, was built in four years, navigating soft soil and urban areas. Its concrete beam design, with 80-meter spans, ensures stability, supporting high-speed trains at 300 km/h. The bridge's functional aesthetic integrates with Hebei's flat terrain, earning engineering acclaim. Environmentally, construction minimized wetland disruption, preserving local ecosystems. The bridge revolutionized rail connectivity, reducing travel times on the Beijing-Shanghai route and handling 80 million passengers annually. Its engineering feats include deep pile foundations and prefabricated segments, ensuring stability in challenging soil conditions. Culturally, it symbolizes China's high-speed rail dominance, connecting rural and urban areas and supporting economic growth. The bridge received recognition from the China Highway and Transportation Society for its technical excellence. By facilitating rapid transit, it boosts trade, tourism, and urbanization in Hebei. The Cangde Grand Bridge exemplifies China's infrastructure ambition, using advanced engineering to span vast distances. Its strategic role in the rail network makes it a vital lifeline, enhancing regional integration. As a symbol of progress, the bridge showcases China's ability to build monumental infrastructure that transforms transportation landscapes, standing as a testament to precision and scale. Its immense length and reliability make it a global benchmark for viaduct design, inspiring awe for its role in connecting communities and driving economic vitality. The bridge's seamless integration into the rail system underscores its significance as a cornerstone of China's high-speed rail network, shaping modern connectivity.



Weinan Weihe Grand Bridge

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 79.7 kilometers
- **Main Span:** 80 meters
- **Location:** Shaanxi, China
- **Construction Date:** 2008

Description

The Weinan Weihe Grand Bridge, completed in 2008, is one of the world's longest bridges, stretching 79.7 kilometers across Shaanxi, China. Part of the Zhengzhou-Xi'an High-Speed Railway, this viaduct, costing \$4 billion, was built in three years, navigating the Wei River and soft soil. Its concrete beam design, with 80-meter spans, ensures stability, supporting high-speed trains at 350 km/h. The bridge's utilitarian aesthetic blends with Shaanxi's flat landscape, earning engineering praise. Environmentally, construction minimized river ecosystem disruption, preserving biodiversity. The bridge revolutionized rail connectivity, slashing travel time between Zhengzhou and Xi'an from 6 hours to 2, handling 60 million passengers annually. Its engineering feats include deep pile foundations and 2,500 prefabricated segments, ensuring stability in unstable soil. Culturally, it symbolizes China's high-speed rail leadership, connecting historical Xi'an with industrial Zhengzhou and supporting economic growth. The bridge received the China Civil Engineering Award for its technical precision. By facilitating rapid transit, it boosts trade, tourism, and urbanization in Shaanxi. The Weinan Weihe Grand Bridge exemplifies China's infrastructure ambition, using advanced engineering to span vast distances. Its strategic role in the rail network makes it a vital artery, enhancing regional integration. As a symbol of progress, the bridge showcases China's ability to build monumental infrastructure that transforms transportation landscapes, standing as a testament to scale and efficiency. Its immense length and reliability make it a global benchmark for viaduct design, inspiring awe for its role in connecting cultural and economic hubs, driving vitality, and shaping modern China's interconnected society.



Bang Na Expressway

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 54 kilometers
- **Main Span:** 42 meters
- **Location:** Bangkok, Thailand
- **Construction Date:** 2000

Description

The Bang Na Expressway, completed in 2000, is one of the world's longest bridges, stretching 54 kilometers across Bangkok, Thailand. This elevated viaduct, costing \$1 billion, was built in five years, navigating urban sprawl and flood-prone areas. Its concrete box-girder design, with 42-meter spans, ensures stability, supporting 120,000 vehicles daily. The bridge's functional aesthetic integrates with Bangkok's skyline, earning engineering recognition. Environmentally, construction minimized disruption to wetlands, preserving local ecosystems. The expressway revolutionized Bangkok's transportation, reducing congestion and cutting travel time across the city by 30 minutes, boosting economic efficiency. Its engineering feats include 1,800 prefabricated segments and pile foundations for soft soil, setting a standard for urban viaducts. Culturally, it symbolizes Thailand's modernization, connecting commercial districts and supporting urban growth. The bridge received the International Road Federation's Global Road Achievement Award for its impact. By facilitating rapid transit, it drives trade, tourism, and Bangkok's economy. The Bang Na Expressway exemplifies Thailand's infrastructure ambition, using advanced engineering to span vast urban distances. Its strategic role as a toll road makes it a vital artery, easing traffic in one of Asia's busiest cities. As a symbol of progress, the bridge showcases Thailand's ability to build monumental infrastructure that transforms urban landscapes, standing as a testament to scale and efficiency. Its immense length and reliability make it a global benchmark for viaduct design, inspiring awe for its role in connecting communities and driving economic vitality. The expressway's integration into Bangkok's transport network underscores its significance as a cornerstone of the city's modernization and mobility.



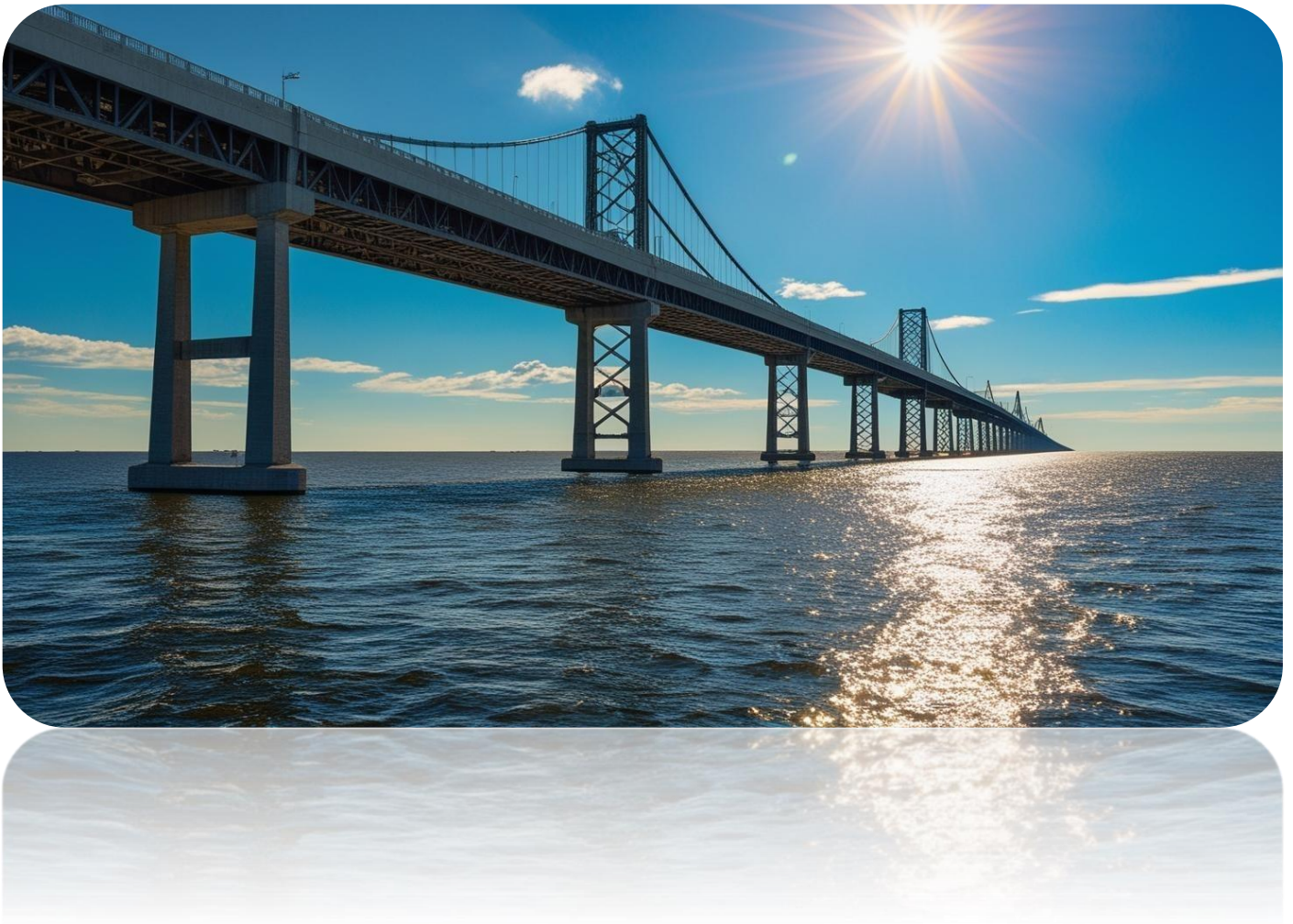
Beijing Grand Bridge

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 48.2 kilometers
- **Main Span:** 80 meters
- **Location:** Beijing, China
- **Construction Date:** 2011

Description

The Beijing Grand Bridge, completed in 2011, is one of the world's longest bridges, stretching 48.2 kilometers across Beijing, China. Part of the Beijing-Shanghai High-Speed Railway, this viaduct, costing \$3.2 billion, was built in three years, navigating urban areas and soft soil. Its concrete beam design, with 80-meter spans, ensures stability, supporting high-speed trains at 300 km/h. The bridge's utilitarian aesthetic blends with Beijing's flat terrain, earning engineering acclaim. Environmentally, construction minimized ecosystem disruption, preserving local biodiversity. The bridge revolutionized rail connectivity, reducing travel time between Beijing and Shanghai and handling 80 million passengers annually. Its engineering feats include deep pile foundations and 1,200 prefabricated segments, ensuring stability in challenging soil conditions. Culturally, it symbolizes China's high-speed rail dominance, connecting the capital with economic hubs and supporting urbanization. The bridge received recognition from the China Highway and Transportation Society for its technical precision. By facilitating rapid transit, it boosts trade, tourism, and Beijing's economy. The Beijing Grand Bridge exemplifies China's infrastructure ambition, using advanced engineering to span vast distances. Its strategic role in the rail network makes it a vital artery, enhancing regional integration. As a symbol of progress, the bridge showcases China's ability to build monumental infrastructure that transforms transportation landscapes, standing as a testament to scale and efficiency. Its immense length and reliability make it a global benchmark for viaduct design, inspiring awe for its role in connecting the capital with economic centers, driving vitality, and shaping modern China's interconnected society.



Lake Pontchartrain Causeway

Technical Specifications

- **Type:** Causeway bridge
- **Total Length:** 38.4 kilometers
- **Main Span:** 46 meters
- **Location:** Louisiana, USA
- **Construction Date:** 1956

Description

The Lake Pontchartrain Causeway, completed in 1956, is one of the world's longest bridges, stretching 38.4 kilometers across Lake Pontchartrain in Louisiana, USA. This twin-span causeway, costing \$46 million, was built in three years, navigating shallow waters and hurricanes. Its concrete trestle design, with 46-meter spans, ensures stability, supporting 43,000 vehicles daily. The bridge's functional aesthetic blends with the lake's horizon, earning engineering recognition. Environmentally, construction minimized disruption to the lake's ecosystem, preserving aquatic life. The causeway revolutionized connectivity, slashing travel time between Metairie and Mandeville from 50 minutes to 25, boosting New Orleans' economy. Its engineering feats include 9,500 concrete piles and prefabricated spans, setting a standard for causeway design. Culturally, it symbolizes Louisiana's resilience, connecting urban and rural communities and supporting tourism. The bridge received the American Society of Civil Engineers' Outstanding Civil Engineering Achievement Award. By facilitating rapid transit, it drives trade and economic growth in the Gulf Coast. The Lake Pontchartrain Causeway exemplifies American infrastructure ambition, using practical engineering to span vast waters. Its strategic role as a toll road makes it a vital artery, enhancing regional connectivity. As a symbol of progress, the bridge showcases the USA's ability to build monumental infrastructure that transforms transportation landscapes, standing as a testament to scale and durability. Its immense length and reliability make it a global benchmark for causeway design, inspiring awe for its role in connecting communities and driving economic vitality. The causeway's integration into Louisiana's transport network underscores its significance as a cornerstone of regional mobility and economic development.



Manchac Swamp Bridge

Technical Specifications

- **Type:** Viaduct bridge
- **Total Length:** 36.7 kilometers
- **Main Span:** 46 meters
- **Location:** Louisiana, USA
- **Construction Date:** 1979

Description

The Manchac Swamp Bridge, completed in 1979, is one of the world's longest bridges, stretching 36.7 kilometers across the Manchac Swamp in Louisiana, USA. Part of Interstate 55, this viaduct, costing \$320 million, was built in four years, navigating wetlands and hurricane-prone conditions. Its concrete trestle design, with 46-meter spans, ensures stability in soft swamp soil, supporting 35,000 vehicles daily. The bridge's utilitarian aesthetic, with low-lying spans, blends with the swamp's eerie, cypress-filled landscape, earning praise for its engineering resilience. Environmentally, construction minimized disruption to the wetland ecosystem, preserving habitats for alligators, herons, and other wildlife critical to Louisiana's biodiversity. The bridge revolutionized regional connectivity, slashing travel time between LaPlace and Hammond, boosting New Orleans' economy and facilitating trade along the Gulf Coast. Its engineering feats include 5,000 concrete piles driven deep into unstable soil, a pioneering approach for wetland viaducts, and a design that withstands frequent flooding and storms. Culturally, it connects rural Cajun communities with urban centers, enhancing access to education and markets, and supports tourism to Louisiana's swamp attractions, like airboat tours. The bridge received recognition from the American Society of Civil Engineers for its technical innovation in challenging terrain. By easing congestion on I-55, it drives economic growth and regional integration. The Manchac Swamp Bridge exemplifies American infrastructure ambition, using practical engineering to conquer vast, unstable landscapes. Its strategic role as a highway lifeline underscores its significance, standing as a testament to durability and scale, inspiring awe for its ability to transform mobility in one of the USA's most unique ecosystems.



Hangzhou Bay Bridge

Technical Specifications

- **Type:** Cable-stayed bridge
- **Total Length:** 35.7 kilometers
- **Main Span:** 448 meters
- **Location:** Zhejiang, China
- **Construction Date:** 2008

Description

The Hangzhou Bay Bridge, completed in 2008, is one of the world's longest bridges, stretching 35.7 kilometers across Hangzhou Bay in Zhejiang, China. Connecting Ningbo and Jiaxing, this cable-stayed bridge, costing \$1.4 billion, was built in five years, overcoming tidal currents and typhoon risks. Its S-shaped design, with a 448-meter main span, ensures stability, supporting 50,000 vehicles daily across six lanes. The bridge's sleek aesthetic, with illuminated H-shaped pylons, complements the bay's coastal landscape, earning architectural acclaim. Environmentally, construction minimized disruption to marine ecosystems, preserving fish migration routes and tidal flows through careful pile placement. The bridge revolutionized connectivity, slashing travel time between Shanghai and Ningbo from 4 hours to 2, boosting trade in the Yangtze River Delta, one of China's economic powerhouses. Its engineering feats include a deep-pile foundation system for soft seabed soil and corrosion-resistant materials to combat saltwater exposure, setting a global standard for coastal bridges. Culturally, it links Zhejiang's historic port cities, enhancing access to cultural sites like Ningbo's Tianyi Library, and supports tourism to Hangzhou's West Lake. The bridge received the China Civil Engineering Award for its technical innovation and economic impact. By facilitating rapid transit, it drives industrialization, urbanization, and regional integration. The Hangzhou Bay Bridge exemplifies China's infrastructure ambition, using cutting-edge engineering to span vast waters. Its strategic role as a coastal artery underscores its significance, standing as a testament to scale and resilience, inspiring awe for its role in connecting economic hubs and shaping modern China's transportation and economic landscape.