

MACDONALD ARCHITECTS

Established in 1966, MacDonald Architects specializes in providing professional services to engineers on bridge projects throughout North America. We work closely with engineers on all aspects of bridge aesthetics. We incorporate a sustainable interaction with the surrounding environment in order to produce appropriate, creative solutions that reflect the site, while also addressing the needs and aspirations of the community. MacDonald Architect's staff is unique in possessing extensive engineering experience. Principal Donald MacDonald, FAIA, trained under eminent professors of structural engineering such as Mario Savadori (Professor at Columbia University and Partner of Weidlinger Associates Inc. and Mendel Glickman (Frank Lloyd Wright's Senior Engineer). This early interest in engineering has continued in his present day architectural practice via the constant collaboration necessary between engineer and architect. Such cooperation has proven vital in developing sensitive design solutions for new bridge structures and their entry portals.

MacDonald Architects is at the forefront of bridge design, having achieved national and international record breaking status on the following bridge types: long span bridges including cable-stayed, self-anchoring suspension and suspension; concrete bridges including arch bridges, haunched box girders, box girders, concrete high beams and other minor steel and concrete bridge types throughout the United States. Our work also encompasses toll plazas and interchange approach structures/ overhead roads including clover leaves, access roads and on/off ramps. Concerning our clients, we coordinate with all relevant consultants to develop unique bridge architectural elements that will bring all structural systems into balance with the context of the new bridge(s). This includes conceptual design work for feasibility studies to architectural detailing, ADA compliance and CAD design. An example of our contributions include: the aesthetic analysis of structural systems and the treatment of approach structures, materials, lighting and decorative elements that may be implemented in order to ensure that the design is not compromised.

The firm is currently involved in the rare opportunity of creating a new 21st century signature bridge and landmark which will stand as the largest self-anchoring bridge in the world- the new suspension bridge for the San Francisco-Oakland Bay Bridge East Span. We recently completed our aesthetic design work for the Ravenel Bridge over the Cooper River in South Carolina. Construction on this design-built, \$600 million structure was recently completed. This award-winning bridge is notably the longest cable-stayed bridge in North America. We were involved in the retrofit studies with the Mid-Hudson Bridge- a long-span suspension bridge in Poughkeepsie, New York. Our Principal, Donald MacDonald, has held various contracts for the internationally-acclaimed Golden Gate Bridge over the last 29 years, consisting of: the current \$400 million seismic retrofit (of the north and south viaducts and main span), seismic upgrades, the existing toll plaza, the latest addition of the bicycle safety rails, and the new Golden Gate Bridge suicide barrier.

The Indian River Inlet Bridge is an excellent project for our design-build work process. This process was set up for the Cooper River Bridge because it is very difficult to achieve an important regional signature bridge structure in the design-build atmosphere without using innovative design techniques to enhance the built structure. We did this on the Ravenel Bridge by developing an architect-engineering collaboration throughout the design period resulting in a national award winning bridge the City of Charleston is very proud of.