



Don Burnett Bicycle-Pedestrian Bridge

CUPERTINO, CA

SDI Scope

*Design collaboration,
material furnishing,
and technical support
of all stay cables*

Contractor

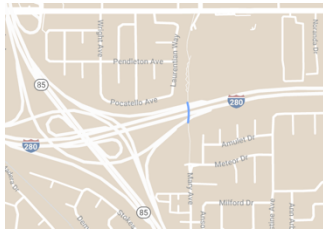
Golden State Bridge

Architect

HNTB Corp.

Owner

The City of Cupertino



The Don Burnett Bicycle-Pedestrian Bridge

During his tenure as mayor of Cupertino, CA, Don Burnett avidly advocated for a bicycle and pedestrian bridge connecting his city to Sunnyvale over Interstate 280. His vision became a reality in 2009 when the bridge opened, then dubbed the Mary Avenue Footbridge. Soon after, Burnett passed away, and the bridge was renamed in his honor.

The Don Burnett Bridge showcases design and construction collaborative elements that set it apart. It was originally planned as a concrete bridge, but the cost was too high. SDI founder Guido Schwager was invited to provide input, and he suggested an elegant stay cable approach that would result in a superior public asset for less cost than a concrete bridge. HNTB's design firm in New York showed the city many erection advantages of a steel stay cable design, and the project commenced with SDI supplying material and technical support for the stay cable system.

Today, many consider it second in beauty only to the Golden Gate as a Bay Area bridge treasure. The Don Burnett Bridge is the first bicycle-pedestrian bridge built over a highway in California, and it earned the Helen Putnam Award for Excellence from the League of California's Cities for design and construction.

PHOTO CREDIT: DOUGLAS JOHNSON

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A Better Installation Process

Because this bridge would be installed over a heavily trafficked highway (Interstate 280), a simple, safe, and efficient means of bridge erection was essential to the success of the project. SDI utilized a cable pre-stretch method with a raised falsework design which largely or entirely eliminates stressing activities onsite, significantly improving the bridge erection schedule and eliminating many construction activities over the highway. The process operated as follows:

- Bridge Stay Cables: 44, 40mm diameter fully locked coil cables were prepared (stretched and marked for placement) offsite in a factory environment.
- SDI's team ensured it had the theoretical cable length at a given cable pre-stretch point marked on the socket thread, so they could then adjust to the erection geometry and verify loads.
- The bridge false work was built higher than the bridge finished height to allow slack in stay cables as they were installed.
- Stay cables were then installed slack.



- As the false work was removed and the stay cables took the bridge load, the bridge deck was monitored to ensure its proper profile (thus demonstrating that each stay cable

was bearing the appropriate portion of the load).

- SDI also fabricated suitable testing and tensioning equipment to modify any cables as necessary after bearing load (no tensioning was needed onsite as associated calculations, pre-stretching, and installation proved correct).

SDI's team visited the project at night (when the highway was closed) to help install the cables as part of their technical assistance to Golden State.



The project stands as a bright, local example of city leaders, private advocates, architects, and construction teams working together to create an elegant and practical contribution to the community's infrastructure. As Dolly Sandoval of Cupertino's City Council noted in *The San Jose Mercury News*, "We can create a flair of beauty and functionality" ([source](#)).

SDI is proud to have served the community in helping to bring the Don Burnett Bicycle-Pedestrian Bridge into being, providing a safe, healthful, and aesthetically pleasing encouragement to walk and cycle our cities for exploration, shopping, work, and play.

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