

Futuristic looking New Toll Plaza in Construction

Commuters leaving the East Bay via the Benicia—Martinez Bridge can now see the new Benicia—Martinez Toll Plaza. Work started last spring and the completion date will be sometime next summer but will not be used until the new bridge opens. In recent years the bridge traffic has increased considerably. The new toll plaza will incorporate better traffic management and ease congestion by moving toll collection to the south end of the bridge away from the 680/780 split. This \$19 million project is the biggest that Caltrans has ever done on a building. The original toll plaza built in 1962 cannot meet present day standards for toll collection efficiency.

The new toll plaza will be on the Contra Costa County side of the bridge, just north of the Marina Vista/I-680 interchange. Tolls will still be collected in the northbound direction. A total of 17 electronic booths will be built, with two of the lanes reserved for carpools. There will be five lanes of northbound traffic with one slow-vehicle lane. All lanes will have FasTrak. The original bridge will be modified to accommodate four lanes of Interstate 680 traffic southbound, plus a two-way bicycle/pedestrian lane.

This dynamic and futuristic toll plaza will also incorporate the latest toll collection technology with modern tollbooths. The toll plaza is designed to ease congestion, enhance safety, and improve the aesthetic quality of the bridge. Included in the toll plaza building will be a set of bays for tow trucks, electrical emergency engine generators, a public lobby, lunchroom and lockers for the toll collectors. There will also be a courtyard where visitors can gaze at Mount Diablo's beautiful bold profile and the curves of the Carquinez Strait.

The design team headed by Dave Stow, Senior Architect, had input from the City of Martinez Design Review Board on structure and landscape concept. The toll plaza will have an aesthetically pleasing look to it with its curves and inward slope, inspired by the topographical outline of the Carquinez Strait and the surrounding Martinez area. Dave Stow and the design team noticed how the "river gently meets the edges of the land, developing curvilinear areas with carved out coves." They integrated this theme into the overall concept. Frank Thomas, architectural designer, says that the design team came up with the canopy design by the way "clouds hang on the side of a mountain." Stow added "the canopy is designed to appear to float by placing single column cantilevered concrete, dense at the rear of the structure. The area lighting is designed so that approaching motorists will be alerted that they are passing through a toll facility."

Along with the toll plaza is a new administration building. The building is a two-story structure appearing as a single-story structure because the lower floor is notched into the hillside. The design team also took inspiration from the large vessels they saw moving on

the Carquinez Strait. They especially, liked the sterns and the way they are “gently rounded and battered from the top toward the water, From this, the design team conceived forms that flowed “in a curvilinear fashion” replicating the sterns of the vessel and the meandering highway 680 corridor itself.” The exterior is covered with aluminum panels, of green metallic and copper metallic. They are designed to have a “chromatic display of color” flowing with the dramatic shift of the natural landscape matching the golden-brown wheat colors of the summer and fall months and the soft, deep green of the winter and spring months.

There are some interesting engineering techniques that went into the toll plaza and administration building. A utility tunnel running under the tollbooths will give access to all tollbooths and have an elevator with wheel chair access. There will be an observation deck with traffic system, traffic lane control lights, control room communications, and security video cameras. To create open and spacious rooms that are still earthquake safe, the designers used Moment Resistant Frames providing integrity of the structure and protection of the walls against seismic forces. Heating, air conditioning, and ventilation systems will pump fresh air into the toll collector’s booths. “Quality of the air is monitored in each booth for CO levels. Air flows are automatically increased to pressurize the booth sufficiently to prevent contaminated air from entering the workplace,” said Stow. With improved lighting, advanced engineering, new signs, and specially designed crash cushions Caltrans' staff will be working in the safest possible environment.