

# MANA DRAG RACING STRIP IMPROVEMENTS

*A Community Affair*

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## SUMMARY OF PROJECT MERITS

The Mana Drag Racing Strip (MDRS) located at the Kauai Raceway Park, is one of the few remaining drag racing strips in the state. At speeds exceeding 120 MPH, the aging and deteriorating pavement at MDRS was to the point where safety was of concern. With the assistance of the State of Hawaii, Department of Land and Natural Resources (DLNR), the Garden Isle Racing Association (GIRA), a non-profit organization comprised of volunteers, proposed to reconstruct the drag strip at MDRS. The Limtiaco Consulting Group (TLCG) was tasked to design the proposed improvements for the 3/4 mile long drag strip.

Originally constructed in 1971 and managed by GIRA, MDRS at Kauai Raceway Park is one of only two National Hot Rod Association (NHRA) member tracks in the state. Family oriented events organized by GIRA help promote safe motorsports and encourage safe driving by taking racing off the streets and bringing it to the race track. People from across the island and state come to MDRS to spectate and participate in the races.

The project faced a number of design challenges. To maintain their NHRA track certification, the proposed improvements needed to meet strict NHRA guidelines to ensure driver and spectator safety was maintained. Also the location of the race track also created various construction challenges due to the high temperatures and proximity to the ocean.

A combination of Portland Concrete Pavement (PCC) and Asphalt Concrete (AC) was selected to reconstruct the track for its ability to provide a durable long lasting driving surface and to ensure that the project could address poor pavement conditions and be completed within the allowable budget.

To satisfy GIRA and NHRA requirements, the contractor was required to pour each concrete launch pad lane monolithically. Due to large size of the concrete pads and high temperatures at the site during work hours, the contractor elected to pour the slabs at night. Due to the location of the race track near the ocean, special precautions were taken to ensure that the work lights and noise did not affect any nesting or migrating sea birds. Only the minimum amount of work lights were utilized to lower any chance of the migrating birds being thrown off track and the generators and noise generating equipment was moved away from possible nesting locations.

With the strict NHRA guidelines for the track surface, additional measures were taken by the contractor to ensure proper installation of the pavement. Surveys were taken of the prepared base course to ensure proper elevations and string line method of pavement installation was used along with cross checking of pavement slopes and thickness to ensure the finish surfaced adhered to the maximum 1/16<sup>th</sup> inch deviation allowed by the NHRA.

With good communication and coordination between all parties, the project was able to be completed successfully to ensure that Kauai and local community has a place for safe and legal drag racing for years to come.