



MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE



CASE HISTORY

Makapuu Retaining Wall Restoration



Before



After

CONTRACTOR

P. Kiewit

LOCATION

Oahu, Hawaii

PRODUCTS

MCI®-2005 NS

MCI® Coating for Rebar NT

PROBLEM

Existing pavement, barrier wall, guide rail required upgrading due to degrading conditions. The new barrier wall is 32" thick at the surface, anchored into the rock face of the mountain. The exterior of the wall faces the Pacific ocean, and is exposed daily to ocean wind speeds that vary with most days of average speed of 10 knots with gusts to 40 knots or higher in winter months. Typical rough sea conditions exist along this particular coast producing a sodium chloride enriched environment that could reduce the barrier walls life if reinforcing steel is left unprotected.

APPLICATION

Due to the corrosive nature of the environment, MCI®-2005 NS was added to the ready mix to extend the life expectancy of the project, and need of long term protection from corrosion for the reinforcing steel, distance of batch plant from project site and ease of batching. All anchor systems and rebar were treated with VpCI®-391 Rebar Coating to insure steel used was protected from sodium chloride exposure. Where surface prep in some instances was required, new rebar was treated just after installation and tie in.

CONCLUSION

Use of Cortec® MCI®-2005 NS for this project will net HIDOT decades of service life where the reinforcing steel will remain free of corrosion in a very difficult corrosion prone environment. Bonus features of MCI®-2005 NS - packaged in pails and bags that can be recycled. Also, concrete containing MCI® can be recycled as MCI®-2005 NS contains ingredients derived from renewable sources. Dosage rate is simply 1.5 pints/per cubic yard and protects both anodically and cathodically. All products were easy to apply and environmentally friendly.

DATE

November 2009 - September 2010

DISTRIBUTOR

Bonded Distributors

CUSTOMER

State of Hawaii Department of Transportation

SPECIFYING ENGINEER

KSF Inc.

CORTEC® REPRESENTATIVE

Corrosion Cops

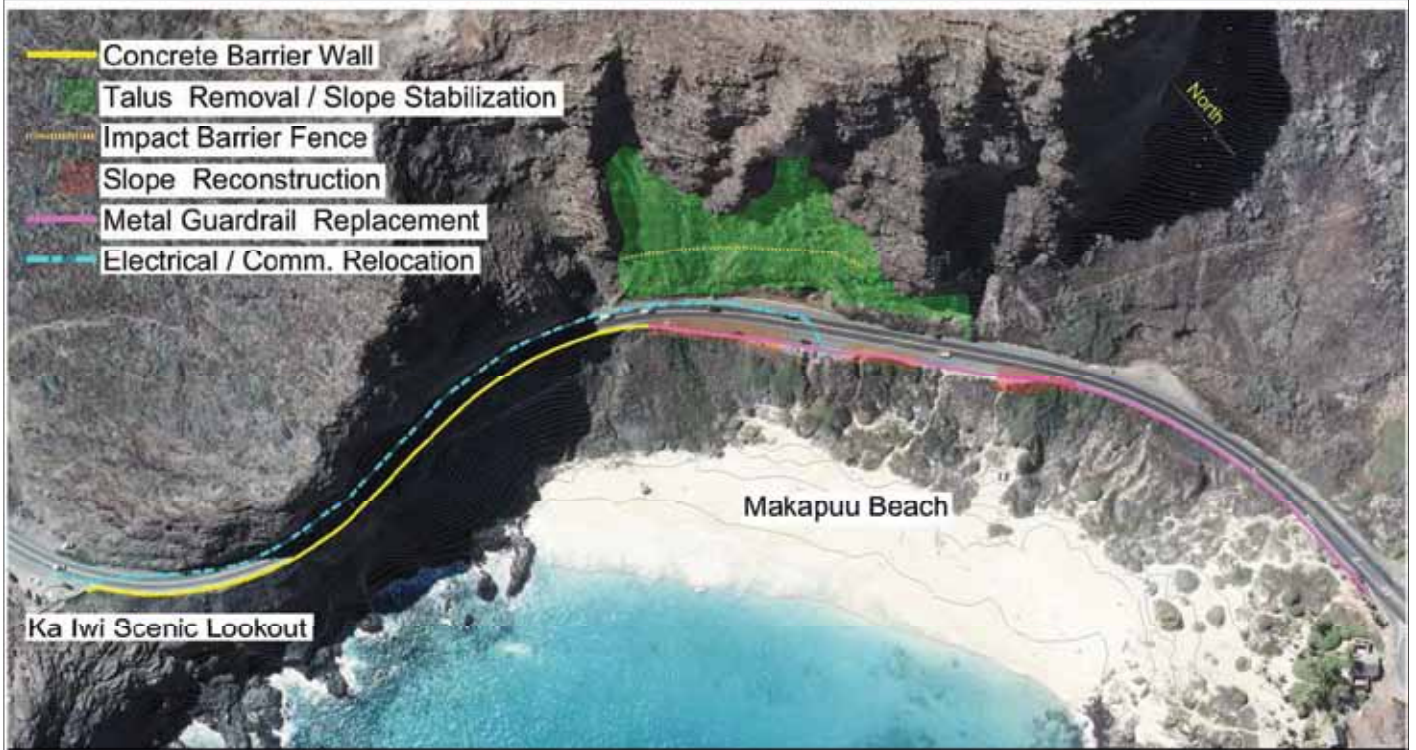
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MIGRATING CORROSION INHIBITORS
FROM GREY TO GREEN



PROJECT SCOPE



STATE OF HAWAII
Department of Transportation