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Transportation

Buildings

Pipelines

Waterfront

Industry



Motorway bridge **Location:** Pieria, Greece

Client: Dept. of Transportation/

Project: Structural Repair of

Aliakmonas River

EYDE Syntirisis

Structural Repair of Aliakmonas River Motorway bridge, Pieria, Greece.

Aliakmonas River Bridge constructed between 1971 and 1974. Bridge is the river overpass of the right branch directing north of the main highway connecting Athens to Thessaloniki. It is a 19 span bridge with total length of 543.70 m.

Severe damages of rebars corrosion, concrete spalling and cracks, were present at the piers, abutments and the main girders. Main causes of these damages are the non water-proof joints between the spans and the malfunction of the deck drainage system which resulted in the de-icing salt flowing on the piers and girders surfaces. Moreover the inadequate concrete cover (<0.5 cm), the short distance from the sea (< 3.0 km) and the high humid environment (river) accelerated the deterioration of the bridge structure. Main works performed: cracks epoxy injection, removing of unsound concrete, corroded steel rebars cleaning with sand blasting, steel rebars protection with corrosion inhibitors, installation of dowels and steel reinforcement, shotcrete jacketing of all 18 piers and cap beams, rehabilitation of main girders initial sections, repair of local damages at the superstructure slab deck, abutments, abutment walls and curbs.

Scope of Works:

 Structural Repair and Strengthening of all piers and girders





