

412-3.05(05) Fiber Reinforced Polymer Composite Materials [Rev. Sep. 2016]

Externally bonded fiber reinforced polymer (FRP) composite materials or “fiber wrap” may be considered for bridge preservation and retrofitting. However, the Department currently does not allow the use of FRP systems to restore the structural capacity of bridge components.

Preservation may include the repair of deteriorated concrete components, such as concrete piers near leaking joints, or the repair of prestressed concrete girders due to vehicle impact. Seismic retrofitting of columns may include fiber wrap in conjunction with adding confinement reinforcement.

Considerations for the use of FRP composite materials should include the cost compared to conventional construction materials, along with the benefit of shorter construction duration and less impacts to the travelling public.

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