



## Projects

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Prepared by Transportation Planning  
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## CFA Tangent Retaining Wall



### Description and Benefit

As part of the design and plan development at the 141/364 interchange, the alternative chosen that had the best chance for success was the construction of a displaced left turn ramp. To build this option, a retaining wall was needed under the MO 364 Bridge over Route 141 separating this new ramp and lanes of SB Route 141. A Continuous Flight Auger (CFA) Tangent Pile Retaining Wall with Soil Nails was selected. This wall met the constraints which were tight vertical clearances overhead and having to construct the wall in sandy soil while not damaging the existing bridge carrying traffic overhead.

The CFA Tangent Pile Retaining Wall with Soil Nails was designed and constructed in an area with sandy soil created by the dredging of the MO River to build the fill of MO Rte. 364 in the early 2000s. This retaining wall also had to be constructed underneath an existing bridge (MO 364 over MO 141) with minimal vertical clearance between the proposed displaced left turn ramp and the girders of the existing bridge. By developing a wall system that could be constructed within the site conditions, the project team reduced the contractor's risk and benefited by not seeing long delays during construction because of constructability issues. If this type of wall had not been constructed, the interchange would not see reduced traffic congestion at the interchange as the ramp may not have been constructed.

### For More Information Contact

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