

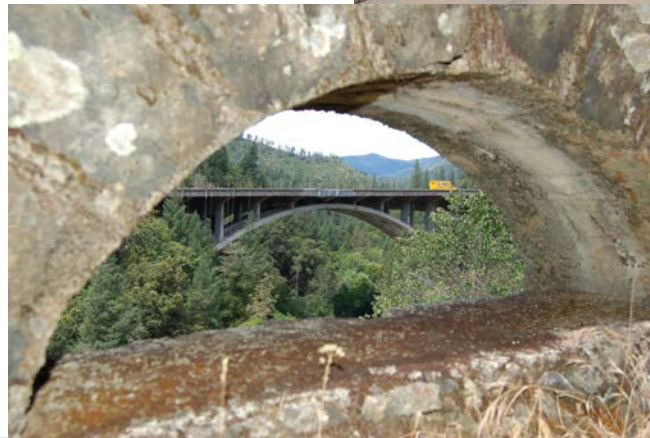
# Teaching a Dog New Tricks: The Seismic Retrofit of the Dog Creek Bridge Using Both Steel and Advanced Composites

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# The Dog Creek Bridge

- Built in 1956, Rehabilitated in 1989
- Seismic Retrofit in the Summer of 2017
- Located in Shasta-Trinity National Forest
- Open Spandrel Concrete Arch Bridge, 682 feet long with the longest span of 300 feet



# The Dog Creek Bridge



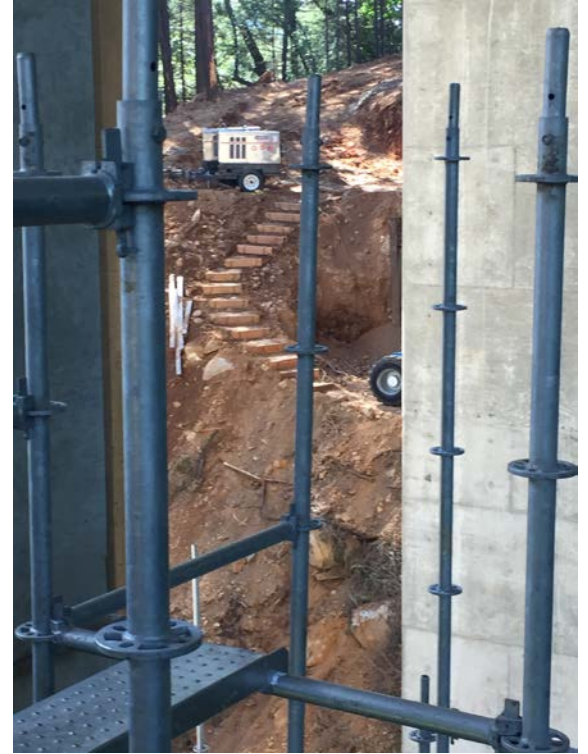
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# The Dog Creek Bridge



# Difficult Access



# View from Above



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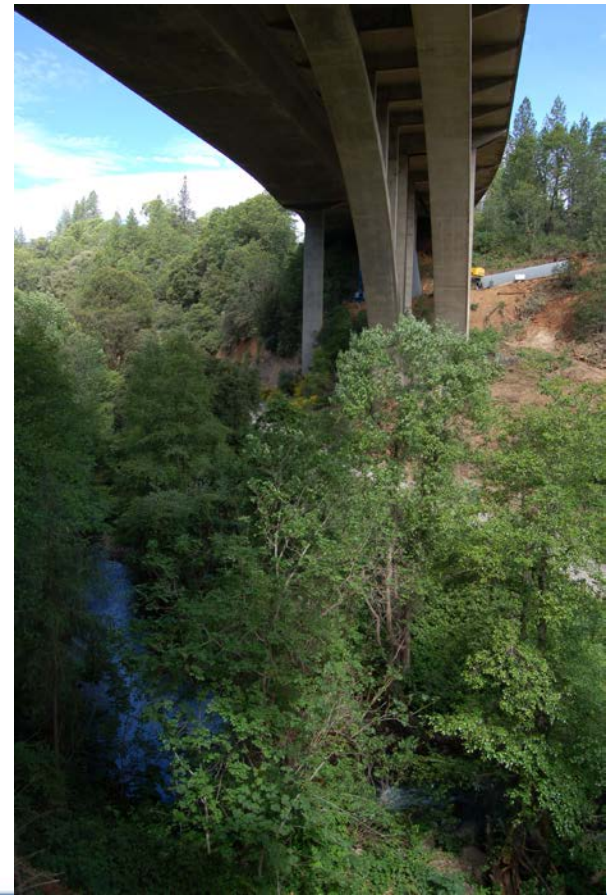
# Project Overview



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# The Dog Creek Bridge





# Steel Jacket Installation



# Steel Jackets Prior to Grouting



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# Steel Jacket Installation



# Steel Jacket Installation



# Staging Platforms



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# Staging Platforms



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## Saturation Area on Staging



# Material Sampling for Field QC



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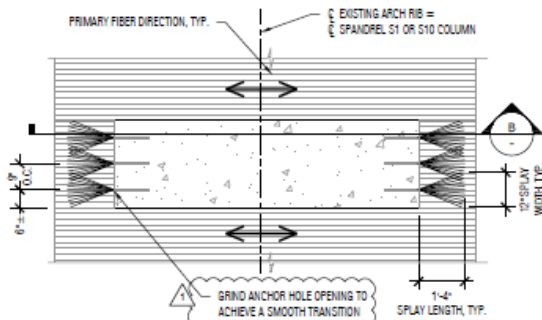
# Field Quality Control – Environmental Monitoring



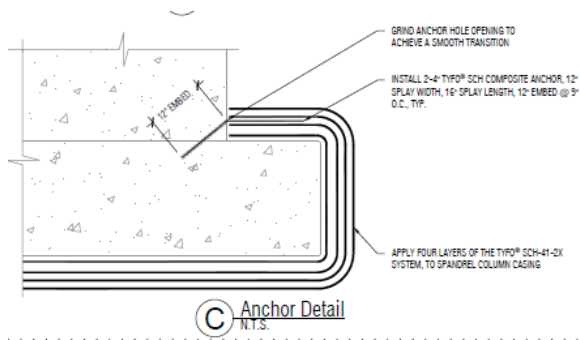
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# Arch Rib Detailing



Partial Plan @ Spandrel Column Locations  
N.T.S.



# Fiber Anchor Detail at Spandrel Arch Connection



# Unfinished Strengthened Arch



# Finished Arch



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# Finish Detailing



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