



PROJECT DESCRIPTION

Con-Span® precast concrete arch culverts provide a structurally superior, maintenance free and economically attractive (see Least Cost Analysis LCA @ "technical data") method of clear spanning creeks, streams and rivers. A wide range of span widths (from 12' to 60') and rises are available. The environmental benefits of clear spanning bodies of water are obvious. Additionally, when augmented with precast footings, construction time can be expedited with typical structure **installation completed in 1 day!** Another benefit may include eliminating the concern regarding quality of concrete to the jobsite when using cast in place footings in especially remote locations.

In the fall of 2012, the U.S. Forest Service witnessed the exact aforementioned benefits at FR 3320 over the Post Creek in the Ottawa National Forest. After removing the existing corroded metal culvert which impeded fish passage, the contractor installed a temporary diversion channel and then excavated for the new Con/Span® structure. Since scour was of little concern, a suitable layer of native soils & crushed rock (culvert bedding) was placed and leveled to grade in the excavated area.

The following construction sequence commenced the next day:

1. Mobile crane and precast components arrived on site.
2. Precast footings were placed and "squared".
3. Contractor placed specified native streambed material and stone armor between footings.
4. Precast arch sections with attached headwalls and wing walls were placed on footings.

A minimal amount of field hydrated grout secured the arch sections to the footings while precast concrete wing walls were fastened to culvert ends. Joint sealing was completed to prevent migration of soil fines through adjoining sections.

The following day backfilling the structure, completing stone armoring at entrances, and soon thereafter completing road graveling & grading took place by the contractor.

Site conditions will dictate the appropriateness of precast foundations for clear spanning. Upper Peninsula Concrete Pipe Co., Inc. will readily assist you in determining if your proposed location is suitable for **installation in a day.**