

INTRODUCING



Licensed by Jensen Precast



PRECAST CULVERTS

SHORT-SPAN BRIDGES, STORMWATER TRANSMISSION, UNDERPASSES & MORE

1-800-223-0012 • FAX: 613-546-4540 • SALES@ANCHORCONCRETE.COM

1645 SYDENHAM ROAD • KINGSTON • ONTARIO • CANADA K7L4V4 • WWW.ANCHORCONCRETE.COM



BOX CULVERT STANDARD DESIGN SPECIFICATIONS



(Above) Vertiset™ Joint
Licensed by Jensen Precast



(Above) Prebenched Box Culvert



(Above) Project: Highway 21,
3000 x 2400 Box Culvert

Low life cycle costs and fast installations save you time and money compared to other precast options and steel corrugated culverts.



Ask about our new Vertiset™ Joint and eliminate the timely process of pulling culvert sections together. Place your culvert with only a crane and allow gravity to swing each section into place while providing an exceptionally close fit.

Anchor Culverts are manufactured to Ontario Provincial Standard Specifications (O.P.S.S.) and the Canadian Highway Bridge Design Code (C.H.B.D.C.). We take quality and safety seriously, so we strive to not only meet, but exceed O.P.S.S and C.H.B.D.C. standards. All of our culverts are wetcast to provide a superior seal on internal reinforcing bar to mitigate the chance of corrosion.

We offer prebenching to help channel water in periods of low flow and keep the culvert free of sediment. Prebenching offsite saves time and money on installations, especially in areas where pumping watercourses for water diversions are required. For your convenience Anchor Concrete has special culvert sections for your job, such as skew ends, headwalls, cut off walls, closed ends, access ports and directional changes.

SIZE span x rise	WALL THICK. "t"	HAUNCH "h"	OUTSIDE WIDTH	OUTSIDE HEIGHT
1800x900	200	200	2200	1300
1800x1200	200	200	2200	1600
2400x1200	200	200	2800	1600
2400x1500	200	200	2800	1900
2400x1800	200	200	2800	2200
3000x1500	250	250	3500	2000
3000x1800	250	250	3500	2300
3000x2100	250	250	3500	2600
3000x2400	250	250	3500	2900

BOX CULVERT CUSTOM DESIGNS

Culvert applications include but are not limited to:

- ▶ Short-span bridges
- ▶ Underpasses for pedestrians, farms and wildlife
- ▶ Water conveyance
- ▶ Water detention

We can manufacture custom culverts for your project in any size, up to a maximum weight of 50 metric tonnes per piece.

Anchor is pleased to offer consultation services during the design and budgetary stage of your project to help create innovative solutions to your design/build and installation problems. We are happy to offer our knowledge to help your project run smoothly, on time and on budget.



FEATURE PROJECT: HIGHWAY 407 CLAMSHELL CULVERT 2014 CUP Award: Underground Division

The extension of Ontario's supersized highway, Highway 407 ETR, required supersized precast concrete culverts with a super easy installation. This culvert runs 76.6 meters long and is 3.5 meters high; making it one of the largest precast concrete culvert installations in Ontario. Anchor worked with the 407 group to design a product that would meet their challenging schedule and the installers need for a fast easy installation - all while providing a high quality structure. The solution provided by Anchor was an innovative, two piece "clamshell" culvert that incorporated a "cantilever" joint.

This innovative design produced both a very tight fit between the culvert sections as well as allowing a quick, user friendly placement of the structure. Amazingly, it took installation contractors just under 7 minutes to safely lift and place each 35 tonne piece of precast. When placing the culverts the installation contractor commented:

"We made money today!"

The 407 Culvert is used as a short-span bridge and for water conveyance. Additionally, the extra large interior (2.1 metres high with an 8 metre interior span) is large enough to also be used as an animal underpass, giving animals a safe way to cross the busy highway rather than above where danger to animals and motorists would be imminent.

Visit www.anchorconcrete.com/boxculverts.htm for a video of the installation

WHEN CONSIDERING YOUR CULVERT OPTIONS, THINK OF MORE THAN JUST INITIAL PURCHASE PRICE. BUY FOR QUALITY, LOW LIFE CYCLE COSTS, AFFORDABILITY AND SAFETY.

BUY YOUR NEXT CULVERT FROM ANCHOR CONCRETE.

Culvert failures in North America are drastically increasing. These infrastructure failures cause public harm often resulting in long traffic delays or worse, serious injury and even death. Besides the obvious safety factor, culvert failures are also concerning for their costs, causing fortunes to be spent on repairs.

But what causes these sudden failures? In reality there are several causes. Failures range from improper infrastructure maintenance and inspection time lines to soil erosion. The most common cause of culvert failures is material corrosion and is often found in corrugated steel culverts. The corrosion process starts when water and soil erode the galvanized coating on steel leaving it open to rust and degrade thereby significantly reducing its structural quality.

Concrete culverts have an advantage. The steel reinforcing bar (rebar) is cast within the structure keeping it out of reach from water. Precast culverts take it a step further; they are cast offsite in climate controlled conditions where quality is strictly controlled to ensure the proper placement of reinforcing bars within the product. Its no wonder that precast concrete is known to last for generations.

At Anchor we know that safety and product quality go hand in hand. That's why we produce a high quality precast product that is always wetcast. By wetcasting our culverts rather than drycasting, our concrete has fewer voids which significantly reduces the opportunity for water to reach the encased rebar and cause corrosion. **Our commitment to quality made products with long life cycles has led to our impressive track record of zero culvert failures since Anchor's inception in 1969.**

New Brunswick Chipman *Steel Culvert Failure*, Nov. 2009
Source: CBC



Ottawa Hwy 174 *Steel Culvert Failure*, Sept. 2012
Source: Ottawa Fire Services



Toronto Black Creek *Steel Arch Culvert Failure*, Aug. 2005:
Source: McCormick Rankin

