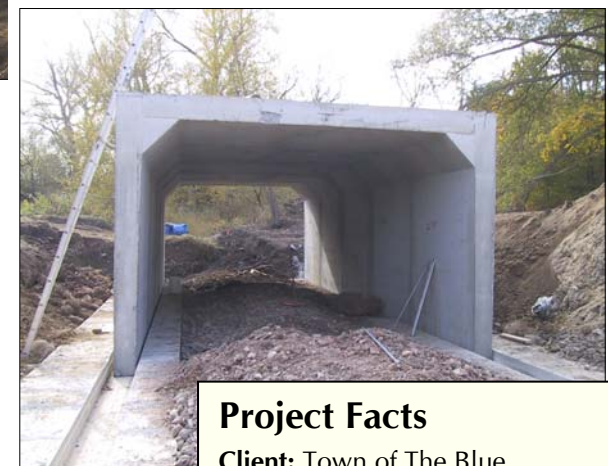




These photos show the new footings at the base of the excavation, the first two precast concrete units being lowered into position and the bridge structure with five sections in place.

The existing bridge had deteriorated to the point that the ends were literally crumbling with chunks of concrete and rebar falling into the stream.



21/22 Side Road Bridge Replacement Town of The Blue Mountains

In 2004, the Ainley Group was retained by the Town of The Blue Mountains to design and supervise the replacement of an existing bridge on Side Road 21/22. The existing bridge had deteriorated to the point that the ends were literally crumbling with chunks of concrete and rebar falling into the stream.

Since the Town wished to raise the road profile by approximately 3 m over the bridge, the embankment required widening and the length of the new bridge needed to be increased to 36 m, requiring property acquisition on each side of the road allowance. After the appropriate environmental protection measures were installed, the existing bridge was excavated, demolished and removed from the site, followed by construction of new cast-in-place concrete footings, designed to accommodate a much larger bridge and increased height of fill. Each of the fifteen precast bridge units (4.33-m span x 3.05-m rise x 2.44-m length) was then lowered and positioned in the footings. After all the sections were in place, the task of installing the filter fabric over the joints and backfilling the structure began. Initially, the Town planned to restore the road to its original profile and raise the road in the future; however, due to the local availability of suitable fill, the bridge was backfilled and the road instated to its new profile immediately following the installation of the bridge units. The site was then restored by spreading topsoil, seeding and placing erosion control blankets. Work began in early September 2004 and was substantially completed by late October.

Project Facts

Client: Town of The Blue Mountains

Scope of Work:

- Detailed design
- Geotechnical investigation
- Contract tendering
- Environmental protection
- Contract supervision:
 - Removal and disposal of existing bridge structure
 - Earth excavation
 - Concrete footings
 - Placement of precast bridge units
 - Granular backfill
 - Site restoration.

Project Cost: \$331,000 (2004)