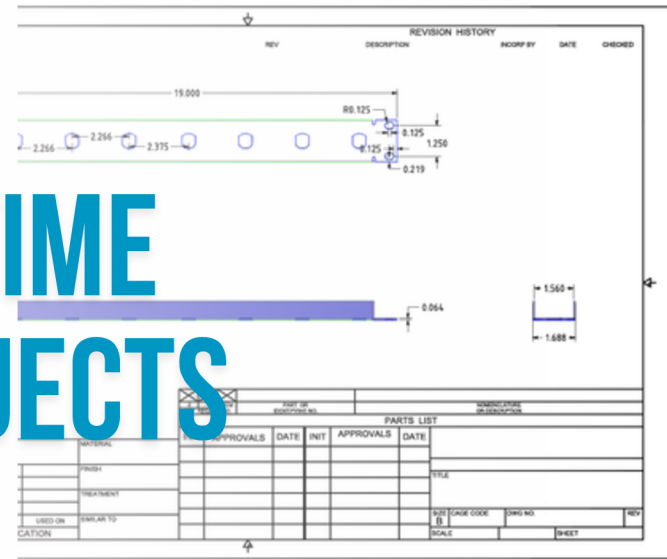




REDUCING LABOR TIME FOR HIGHWAY PROJECTS

HOW CUSTOM METAL ASSEMBLIES REDUCED INSTALLATION TIME ON HIGHWAY 265 AND 65 PROJECTS



ENGINEERING CUSTOM ASSEMBLIES FOR HIGHWAY CONSTRUCTION

Heumann Environmental engineered a bolt-in stainless steel assembly to reduce installation time and support high-volume production.

THE CHALLENGE

Transurban needed a fixture that integrated seamlessly with their stainless steel electrical boxes, matching both structurally and aesthetically while withstanding outdoor conditions.

We sourced 14GA 304L stainless steel, a corrosion-resistant alloy ideal for heavy-gauge components requiring strong weld joints without post-weld annealing.

After reviewing their drawings, our team re-engineered the design to simplify fabrication and installation. The updated fixture became a direct bolt-in solution, reducing on-site labor. We also integrated ground lugs into the bracket, eliminating an additional installation step.

THE SCOPE

What began as a one-month request—30 modified camera mounts and 24 internal brackets—expanded into a six-month partnership. During that time, we delivered:

- 555 Camera Mounts
- 545 Z Brackets
- 376 Posts
- 24 Additional Custom Fixtures

Forming small flat plates into precise stainless brackets required a custom solution. We designed and machined a custom die in-house for our press brake, enabling accurate 90-degree bends in 14GA 304L polished stainless steel.

CONCLUSION

The bolt-in redesign reduced field labor and installation steps while maintaining a consistent stainless steel match with existing components.

By managing both design revisions and production in-house, we made rapid adjustments and delivered high-volume components with consistent quality within their project's construction schedule.