

## Company Background

Bohannon Huston, Inc., (BHI) is a Southwest firm that specializes in engineering, spatial data, and advanced technologies. Celebrating 50 years as a New Mexico business and as a local industry leader in innovation and efficiency - BHI's success is guided by our mission statement and core values.

Because of our willingness to try new things, we are recognized as a leader in many emerging technologies and specialized disciplines. Among our engineering services is roundabout analysis and design.

BHI has completed 25 roundabout designs in the last 5 years, several of which have already been constructed and are in operation, and others that will be implemented within the upcoming year



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## BHI uses TORUS for efficient roundabout design.

### TORUS: THE ROUNDBABOUT SOLUTION

The difficulty with designing roundabouts is well known. Using conventional CAD programs to modify roundabout geometric changes, no matter how minor, can be a labor-intensive effort that can rapidly impact a project schedule.

When BHI began using Transoft Solutions TORUS software, however, we immediately recognized the tool's ability to dramatically streamline roundabout design, analysis and production workflow.

What had taken hours was reduced to minutes. Immediately, it was clear that the strength of TORUS lay within its capabilities to expedite roundabout design layouts. By utilizing TORUS, our engineers now have more time to deal with other project details and to interact with clients to meet their expectations.

### ALL AROUND CAPABILITIES

A case in point occurred within days of our TORUS purchase. We had been working for several weeks on a roundabout design with tight right-of-way and geometric constraints. Tremendous effort had been expended in formulating numerous roundabout design iterations, yet consensus on the preferred alternative was nowhere in sight.

Armed with our TORUS software, we scheduled a meeting with the review agency. During this meeting, we were able to engage the review agency in the process, and together, we interactively designed and analyzed a roundabout "on the fly."

The ability to have the fast path update, as design modifications were made, was powerful. In moments, we evaluated multiple alternatives to mitigate the constraints and resolved entry speed issues that previously seemed insurmountable.

**“A design completed on time and on budget with a satisfied client.”**

Before TORUS, such changes would normally require several hours to generate a revised roundabout layout and an additional meeting to review the results. Using TORUS, BHI was able to keep the client discussions going to achieve a solution within that same meeting; thus improving both the quality of our work and our interactions. The result: a design completed on time and on budget with a satisfied client.

### RESULTS FULL CIRCLE

Based upon our initial success with TORUS, we have integrated this as a standard program for our designers. Currently, we are using TORUS to develop conceptual roundabout designs at four intersection locations.

In the past, we would have likely invested 40+ hours in the roundabout geometric layout alone. Now using TORUS, we have been able to develop initial concepts in just minutes. All this with the added knowledge and benefit that because the geometrics are based upon the desired design vehicles, the geometrics will work without having to manually check turning movements.

The time savings has allowed BHI to focus more on evaluating feasible alternative concepts. This helps us maximize our client's project dollar and ensure that optimal design solutions are achieved.