



N.C. Department of Transportation
Continuous Improvement Project Submission Form



Project Name: Division 2 ~ Post Puller
Business Unit: Division 2 Traffic Services
Team Members: Jim Evans, Wesley Brazelton, and C.D. Whitlow

Submission Date: 2007
Team Leader: Jim Evans
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Date Implemented: 2007
Supervisor Approving Project: C. E. (Neil) Lassiter, P.E.

Project Type (Select 1 from the List): Safety

Project Objective: Removing 4 x 4 sign posts from the ground using a shovel or post hole digger is a physically demanding task that puts strain on the back and shoulder muscles. Some of the issues that a sign department faces that add to the physical demand are location of the sign post, moisture in the ground causing suction, and broken posts.

Former Process: A hole digger was used in conjunction with an auger to remove the posts. The auger was used to loosen the dirt that surrounded the posts, and the hole digger was jabbed in the top of the post for removal.

Revised Process: The solution was to develop a post puller that could be used in lieu of a shovel or post hole diggers that would reduce the physical demand on back and shoulders. The idea of the post puller came from the use of an old car jack. By hooking a chain on the 4 x 4 and then hooking the chain on the car jack, the post could then be easily pulled out of the ground. For deeper buried and larger posts, an extension can be added to the lever. This post puller can remove the following types of posts: wooden, steel, and broken post types.

Benefits: Decreased amount of back and shoulder injuries. This improvement also resulted in labor savings for post removal.

Improvement Analysis: The attached videos demonstrate the improved process of two types of post pulling. As demonstrated in the videos there are both safety and labor cost savings improvements by implementing this project in the Division.

The Continuous Improvement Project Submission Form is Recommended To Be Emailed to: "NCDOT Continuous Improvement" OR attach a hardcopy of the form and mail to: "Quality Enhancement Unit, 1502 MSC, 104 Fayetteville St., Raleigh, NC 27601"

Questions About The Form Email: "NCDOT Continuous Improvement"

The Continuous Improvement and Management Studies Team will contact you within 10 Business Days

Thank you for taking your time to share your project with the full DOT team!

Video Broken Post Pull.MPG (28 MB)

Video Wooden Post Pull.MPG (13 MB)

For more information, call Jim Evans at (252) 830-3493

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(Pictured Left to Right: Wesley Brazelton, Jim Evans, and C.D. Whitlow)