

Oklahoma Department of Transportation

Date: June 18, 2013

To: Mr. Larry D. Reno, Chief of Surveys

From: Gary S. Rhoads, Professional Land Surveyor

Subject: SWO 4864(1) - JP 24092(04) - SH 58 - Caddo County
From SH 152 South of Oakly, North 6 miles.

Historical Letter and Written Report

GENERAL:

Method of Survey:
This survey was performed using a combination of aerial photogrammetry and conventional field methods to include Total Station, Static and Real Time Kinematic (RTK) Global Positioning System (GPS), Electronic and Differential Leveling.

Units of Measurement - English (U.S. Survey Foot)

Survey initially began on October 1, 2012 on a part time basis in conjunction with SWO4913(1) - JP 29524(04) - SH 152 - Washita County, Bridge over Taylor Creek, 1.5 miles west of the Caddo County line. This survey began full time on December 17, 2012.

Survey was completed on June 18, 2013.

Personnel on this survey:
G. S. Rhoads, Professional Land Surveyor
J. M. Whittenberg, Transportation Specialist V
D. R. Mason, Transportation Specialist V
R. D. Huber, Transportation Specialist IV
C. S. Hinds, Transportation Specialist IV
J. G. Turner, Transportation Technician III

SURVEY ASSIGNMENT:

This survey was assigned to the El Reno crew via an email from Mr. William Tackett, Assistant Chief of Surveys, to Mr. Kyle King, Area Manager, and dated September 26, 2012. An emailed dated September 27, 2012 modified the previous email. A Survey Scope and Special Provisions Letter was received from Mr. Kyle King, dated November 20, 2012.

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PURPOSE OF SURVEY:

The purpose of this survey is to obtain adequate information for the design and construction of a widening and resurfacing of the existing roadway.

SURVEY LIMITS:

Main Survey:
Aerial Targets along SH 58, for this survey, began 0.5 miles south of SH 152 and extended northerly for 7 miles.

SH 152 Connection Survey:
This survey began 1000 feet west of SH 58 and extended east 2000 feet.

ALIGNMENTS:

A001: Main Survey - SH 58
The Centerline of Survey was reestablished along the existing centerline of SH 58 as shown on the SAP-775(2) Plans.

A002: Centerline Survey - SH 152
The Centerline of Survey was reestablished along the existing centerline of the SH 152 as shown on the SAP-552(12) Plans.

Previous Surveys & Projects relevant to this project:

PLANS

FAP NO. W.P.A. 7-84 - STATE HIGHWAY NO. 54(SH58) - CADDO CO. - 19

FAP NO. W.P.A. 7-84" - STATE HIGHWAY NO. 54(SH58) - CADDO CO. - 193

SAP NO. 552(12) - STATE HIGHWAY NO. 41(SH152) - CADDO CO. - 1948

SAP NO. 775(2) PARTS NO. 1, 2, & 3 - STATE HIGHWAY NO. 58 - CADDO CO. - 1951

19967(2005-01-01)JP-CobbCreek - 120.5' Bridge Span (1980)

19991(2005-01-01)JP-CobbCreek - 210.75' Bridge Span (1980)

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FIELD BOOKS

SWO 1454 - SH 41 - From Washita - Caddo County Line, East toward Dinger to end of Bituminous Surface, Total Length of Survey 8.286 miles - Field Book No. 1 (February 15, 1948)

SWO 1704 - Proj. SAP 775(2) - SH 58 - Resurvey from SH 41(SH152) north to US 66 at Hydro - Caddo County, Book 1 & Book 2 (February 2, 1951)

SWO 3181 - SH 152 - Caddo County - Project Engineering, Bridge Book 1 of 1 - Bridge Survey on Drain 5.1 miles east of the Washita County Line & Bridge Survey on Lake Creek 5.2 miles east of the Washita County Line (July 26, 1973)

SWO 3385 - SH 152 - Caddo County - SAP 8(94)PT, Alignment & Level Book 1 of 1 - Bridge Survey on Cobb Creek approximately 1.5 miles east of Washita-Caddo County Line (June 22, 1978)

STATIONING:

A001: Main Survey - SH 58
The Centerline of Survey was reestablished along the existing centerline of SH 58 as shown on the SAP-775(2) Plans. Stationing for SH 58, this survey was assigned Station 100+00 at the BOP of this survey, at the Junction of SH 58 and SH 152, extending north without equation.

A002: Centerline Survey - SH 152
The Centerline of Survey was reestablished along the existing centerline of the SH 152 as shown on the SAP-552(12) Plans. Stationing for SH 152, this survey was equated to said plans Station at the Southwest Corner of Section 32, T10N, R13W, 1M and as shown on SWO 3385 - SH 152 - Caddo County - SAP 8(94)PE, Bridge Survey on Cobb Creek, at Station 52+14.00, extending east without equation.

HORIZONTAL CONTROL:

Horizontal control for this survey is based on the National Geodetic Survey's (NGS) Oklahoma State Plane Coordinate System, North American Datum (NAD) of 1983(2011), FPOCII - 2010.0, South Zone. The distances and coordinates on this survey are in US Survey Feet. All angles and bearings shown are in degrees, minutes and seconds. A Static Survey was processed from data obtained from the NGS Continuously Operating Reference Station's (CORS) web site, and data observed on control points for this survey. Following are the stations and points in which data was obtained or observed: