SURVEY CONTROL DATA

1. HORIZONTAL CONTROL:

- A. HORIZONTAL CONTROL FOR THIS SURVEY IS THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM, NAD83 (2007), (NORTH ZONE).
- B. ACCURACY THE PRIMARY CONTROL NETWORK, THE SECONDARY CONTROL NETWORK AND SECTION BOUNDARIES FOR THIS SURVEY ARE IN GENERAL COMPLIANCE WITH THE NGS SECOND ORDER, CLASS II STANDARDS FOR HORIZONTAL CONTROL (1:20,000).

2. BEARINGS

THE BEARINGS SHOWN HEREIN OR HEREON ARE GRID BEARINGS DERIVED FROM THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM AND ARE NOT ASTRONOMICAL. THE ANGLE OF VARIANCE BETWEEN GRID NORTH (GN) AND THE ASTRONOMICAL TRUE NORTH (TN) IS DEPICTED DIAGRAMMATICALLY.

3. VERTICAL CONTROLS:

- A. LEVEL DATUM IS NGS NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88)
- B. ACCURACY VERTICAL CONTROL FOR THIS SURVEY IS WITHIN THE CLOSURE REQUIREMENT OF NOAA/NGS "CLASSIFICATION, STANDARDS OF ACCURACY, AND GENERAL SPECIFICATIONS OF GEODETIC CONTROL SURVEYS" (FEB. 1974, REPRINTED FEB. 1977) THIRD ORDER STANDARDS AS A MINIMUM.

SURVEY BEGAN: JANUARY 12, 2008. SURVEY COMPLETED: APRIL 10, 2008.

GARY S. RHOADS, PROFESSIONAL LAND SURVEYOR
JASON M. WHITTENBERG, TRANSPORTATION SPECIALIST LEVEL II
RUSSELL E. HUBER, TRANSPORTATION SPECIALIST LEVEL II
CURTIS S. HINDS, TRANSPORTATION SPECIALIST LEVEL II
JEROMY G. TURNER, SURVEY TECHNICAN II

EQUIPMENT:

EE-129 SYSTEM 500 GPS UNIT
EE-130 SYSTEM 500 GPS UNIT
EE-135 SYSTEM 500 GPS UNIT
EE-211 SYSREM 1200 GPS UNIT
EL-413 WILD NA 2002 DIGITAL LEVEL
ET-492 TC 1800 TOTAL STATION
TCRA 1203 TOTAL STATION
RANGER HAND HELD GPS CONTROLLER SN 00011193
EC-0023 ALLEGRO HAND HELD GPS CONTROLLER

SCALES

SURVEY DATA SHEETS 1" = 100

GEOMETRIC DATA SHEETS 1" = 500

TOUTHWENTENERAL OFFICIALS THE TOUTHWENTEN CONTROL LINES TOUTHWENTEN CONTROL LINES TOUTHWENTEN CONTROL LINES TOUTHWENTEN CONTROL LINES TRESPORT A TRESPARATH TOUTHWENTENERAL TRESPARATH TOUTHWENTENERAL LINES TOUTHWENTENERAL

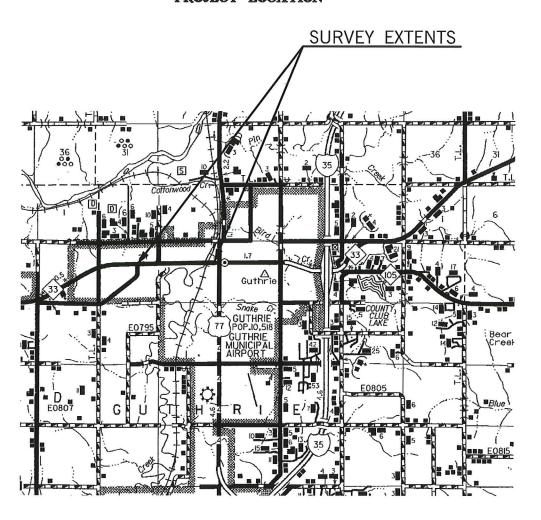
THIS SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, JUNE 11, 2001.

811 the new national "Call Before You Dig" number.

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED SEPTEMBER 11, 2001 GOVERN.

SURVEY DATA SHEETS

PROJECT LOCATION



LOGAN COUNTY SH 33

SWO 4432(1) STATE JOB NO.21860(04)

Electronic File Transfer Discialmer:

These Files, Drawings and/or Notes are provided for information only. The Okiahoma Department of Transportation (0001) and the Owner cannot be held responsible for the content or accuracy of these Files, Drawings and/or Notes due to conversions, software translations, or any other manipulation of said Files, Drawings and/or Notes. 0001 expressly disolaims any responsibility arising from any use of these Files, Drawings and/or Notes. To the full extent permitted by applicable law, the recipient of these Files, Drawings and/or Notes hereby agrees to defend, indemnify, and hold harmless 0001 and the Owner from and against any and all claims, suits, actions, damages, loss, liability or costs of every nature or description (including reasonable attorney's fees) arising from, or in any way attributable to or connected with any of these Files, Drawings and/or Notes.

INDEX OF SURVEY SHEETS

1. TITLE SHEET

2-4. SURVEY INFORMATION(notes, letters)
 5-8. COGO POINTS & ALIGNMENT DATA

HORIZONTAL CONTROL DIAGRAM

10-15. SURVEY DATA SHEETS

16-17. GEOMETRIC DATA SHEETS

STATE OF OKLAHOMA DEPARTMENT OF TRANSPORTATION

SWO_4432(I)

Job/Piece 21860 (04)

Engr.Contract No.___

LAND SURVEYOR'S CERTIFICATION

I hereby certify that all land and property sub-division distances, angles, corners and monumentation made or used in conjunction with this survey and depicted or recorded herein or hereon were recovered, established or re-established in substantial conformity with:

-applicable Instructions contained in the U.S.Government Bureau of Land Management publication "Manual of Surveying Instructions";
-its supplement, "Restoration of Lost or Obliterated Corners and Subdivision of Sections";

-its supplement, Restoration of Lost or Obliterated Corners and Subdivision of Sections*;
-"Oklohomo Minimum Standards for the Practice of Land Surveying" as adopted by the State Board of Registration for Professional Engineers and Land Surveyors; and -sound land surveying practices;

Including a thorough search study, analysis and consideration of all existing records and field evidence.

I further certify that all survey monuments depicted exist and that all land survey work was done by me or under my direct supervision and that it is true, accurate and correct to the best of my knowledge and belief.

Oklahoma Registered Land Surveyor No. 1102

Land Surveyor

Land Surveyor

APRIL

Copy (Sed)

GARY S.

RHOADS

PINITED Name

Certificate of Authorization No. Exp. Date

Certificate of Authorization No._____ Exp.Date ___

PLS GSR OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION

CHECKED CSH SURVEY DATA SHEET

APPROVED

CREW EL RENO SWO 4432(1) STATE JOB NO. 20060004) SHEET NO. SOOT