

VICINITY MAP

## BASIS OF BEARINGS

BEARINGS ARE BASED UPON THE OREGON COORDINATE SYSTEM - NORTH ZONE NAD 83 (CORS 96), RELATIVE TO PROJECT CONTROL POINTS OBSERVED BY GPS MEASUREMENT USING THE ORGN CORS CONTROL NETWORK.

ALL POINTS DERIVED USING THE ORGN WERE SUBSEQUENTLY CONVERTED TO GROUND COORDINATE VALUES USING THE FOLLOWING METHOD:

A COMBINED SCALE FACTOR FOR THE SITE WAS CALCULATED. COMBINED SCALE FACTOR = 0.999771272328 GRID TO GROUND = 1.000228782

GRID COORDINATES WERE SCALED BY THIS FACTOR AROUND BASE POINT OF APA CONTROL POINT

#524 - N612607.0890 E8841321.779

BEARINGS SHOWN ARE GRID BEARINGS. DISTANCES ARE BASED ON GROUND MEASUREMENT FROM THE GROUND COORDINATE SURVEY CONTROL POINTS.

#### SURVEY NARRATIVE

THIS SURVEY WAS PERFORMED AT THE REQUEST OF UNION COUNTY FOR THE PURPOSE OF RE-ESTABLISHING MONUMENT POSITIONS FOR OBLITERATED SECTION AND ONE-QUARTER CORNERS ALONG PIERCE ROAD, IN BETWEEN THE EXISTING SECTION CORNER COMMON TO SECTIONS I AND, 2, T. 35. R. 38E AND SECTIONS 35 AND 36, T 2 S. R. 38 E., W.M. AND THE EXISTING SECTION CORNER COMMON TO SECTIONS 13, 14, 23 AND, 24, T. 35. R. 38E. THESE OBLITERATED CORNERS DEFINE THE 60 FOOT WIDE RIGHT-OF-WAY FOR PIERCE ROAD.

A TOPOGRAPHIC FIELD SURVEY WAS CONDUCTED AT THE SITE IN OCTOBER AND NOVEMBER, 2010. THE AREA OF SURVEY INCLUDES THE ROADWAY AND OTHER FEATURES FOR THE FULL RIGHT-OF-WAY WIDTH. SURVEY MEASUREMENTS INCLUDED THE LAYOUT OF A HORIZONTAL CONTROL NETWORK (UTILIZING GPS/RTK METHODS) ALONG THE DESCRIBED ROADWAYS. ADDITIONAL TOPOGRAPHIC MAPPING OF UTILITIES, EDGE OF ASPHALT, GROUND, ETC. WAS PERFORMED BY A COMBINATION OF TRADITIONAL TOTAL STATION MAPPING AND GPS RTK METHODS. EXISTING SURVEY MONUMENT POSITIONS WERE ACQUIRED USING ORGN GPS OBSERVATIONS.

THE HISTORY OF PRIOR SURVEYS PERTAINING TO THIS SURVEY IS AS FOLLOWS: IN 1863 DAVID P. THOMPSON SURVEYED THE SUBDIVISIONAL LINES UNDER GOVERNMENT CONTRACT NO. 103. ORIGINAL CORNERS SET PER THE OFFICIAL FIELD NOTES WERE A POST IN A MOUND OF EARTH WITH CHARRED STAKE AND PITS AND TRENCHES. NO KNOWN OR RECORDED SURVEYS FROM THE DATE OF THE ORIGINAL GLO SURVEY HAVE SHOWN ANY PHYSICAL EVIDENCE OF THE ORIGINAL CORNERS. IN MARCH OF 1870 AND MARCH OF 1872. UNION COUNTY ROAD RECORDS SHOW A RIGHT-OF-WAY PETITIONED, CREATED AND ORDERED OPEN IN JOURNAL A, PAGES 284 AND 468 FOR COUNTY ROADS 30 AND 44.

THE POINT OF BEGINNING FOR THE PETITION FOR COUNTY ROAD NO. 30 IS AT A POINT ON THE COUNTY ROAD LEADING FROM LA GRANDE TO HENDERSHOTS POINT (GEKELER LANE) ONE MILE WEST OF THE RANGE LINE BETWEEN TOWNSHIP 3 SOUTH, RANGE 38 EAST AND TOWNSHIP 3 SOUTH, RANGE 39 EAST. THENCE NORTH ON THE SECTION LINE TO THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SECTION 25 IN TOWNSHIP 2 SOUTH, RANGE 38 EAST.

THE POINT OF BEGINNING FOR THE PETITION FOR COUNTY ROAD NO. 44 15 AT THE NORTHEAST CORNER OF SECTION 14 IN TOWNSHIP 3 SOUTH, RANGE 38 EAST. THENCE SOUTH ON THE SECTION LINE 2 AND 3/4 MILES TO AN ANGLE POINT. THENCE CONTINUING ALONG A SERIES OF COURSES TO THE MOUTH OF LADD CANYON. THE ORIGINAL INTENTION FOR LOCATING COUNTY ROADS 30 AND 44 WAS FOR THE CENTERLINE TO FOLLOW THE SECTION LINES AS SURVEYED BY THE GLO. IN CONFORMANCE WITH THE BLM MANUAL OF SURVEYING INSTRUCTIONS 2009, SECTIONS 6-34 THROUGH 6-49, THE LONG ESTABLISHED ROAD BED FOR PIERCE ROAD IS THE BEST AVAILABLE EVIDENCE OF THE TRUE POSITION OF THE ORIGINAL GLO SURVEY AND IS GIVEN SUBSTANTIAL WEIGHT IN RE-ESTABLISHING THE OBLITERATED CORNERS. THE RIGHT-OF-WAY OF PIERCE ROAD IS 60 FEET WIDE CENTERED ON THE SECTION LINES FROM BOND LANE ON THE SOUTH TO THE COVE HIGHWAY (STATE HWY 237) ON THE NORTH.

PREVIOUS SURVEYS (SEE UNION COUNTY MAP OF SURVEY 43-84, 024-1998 AND 009-2010) HAVE TREATED THESE CORNERS AS LOST AND HAVE ESTABLISHED RECORD SECTION CORNER POSITIONS IN THIS AREA USING STANDARD METHODS OF SINGLE AND DOUBLE PROPORTION. THESE LOCATIONS DO NOT AGREE WITH THE LOCATION OF THE AS-BUILT ROAD AND OTHER IMPROVEMENTS. THEIR POSITIONS HAVE BEEN SHOWN ON THIS SURVEY FOR REFERENCE. (A PORTION OF PIERCE ROAD NORTH OF THE COVE HIGHWAY, APPROXIMATELY 5000 FEET IN LENGTH, VARIES SIGNIFICANTLY FROM THE SECTION LINE LOCATION AND RIGHT-OF-WAY AND WILL BE DETERMINED ON A SUBSEQUENT ROAD LEGALIZATION SURVEY.)

DURING THE CONSTRUCTION OF ROADWAY IMPROVEMENTS, ACCORDING TO THE CONSTRUCTION PLANS PREPARED FOR UNION COUNTY BY ANDERSON PERRY & ASSOCIATES DATED MARCH 8, 2011, A DECISION WAS MADE TO EXCAVATE THE ROADWAY IN A SEARCH FOR EVIDENCE OF SECTION AND ONE-QUARTER SECTION CORNERS. THE LOCATIONS SEARCHED WERE AT ROADWAY CENTERLINE INTERSECTIONS AND OPPOSITE OLD FENCE AND TREE LINES.

**DETAIL C. SHEET 4:** AN AREA WAS EXCAVATED IN A SEARCH FOR THE SECTION CORNER COMMON TO SECTIONS 1, 2, 11 AND, 12, T. 35. R. 38E.WHILE EXCAVATING THE ROADWAY CENTERLINE ADJACENT TO EAST-WEST FIELD LINES WE FOUND A 5" X 10" X 14" ROUGH BASALT STONE, NEARLY VERTICAL, 4" BELOW BOTTOM OF ROADWAY BALLAST. THE STONE HAS A 5" DIAGONAL GROOVE NEAR THE TOP ON THE SOUTH FACE. THE STONE IS 4.0' FEET WEST OF THE CENTERLINE OF PIERCE RD. WE DID NOT ACCEPT THE STONE AS THE SECTION CORNER BECAUSE IT WAS NOT OF RECORD AND IT WAS 4.0' WEST OF THE EXISTING CENTERLINE OF PIERCE ROAD. WE DO FEEL IT HAS VALUE AS SUPPORTING EVIDENCE BASED UPON IT'S UNUSUAL NATURE, BEING THE ONLY STONE FOUND DURING EXCAVATION AND BEING NON-NATIVE TO THE VALLEY FLOOR. IN ADDITION, THERE ARE NUMEROUS OTHER SURVEYS OF RECORD IN THE AREA WHICH CALL FOR UNMARKED STONES. WE BELIEVE THESE WERE OFTEN SET TO REPLACE THE ORIGINAL POST WITH PITS AND A MOUND OF EARTH SET BY THE GLO. WE HELD THE POSITION OF THE SECTION CORNER AS SHOWN ON COUNTY SURVEY 009-2010 AS IT FALLS IN THE CENTERLINE OF PIERCE ROAD AND FIT THE EXISTING FIELD LINE OF OCCUPATION TO THE WEST. WE SET A MONUMENT AS DETAILED IN THE CORNER NOTES ON SHEET 3. (SEE DRAWING DETAIL "C", SHEET 4).

**DETAIL E. SHEET 4:** ANOTHER AREA WAS EXCAVATED IN A SEARCH FOR THE SECTION CORNER COMMON TO SECTIONS II, I2, I3 AND, I4, T. 35. R. 38E. WHILE EXCAVATING THE ROADWAY CENTERLINE INTERSECTION OF PIERCE ROAD AND GEKELER LANE WE FOUND AN 18" X 18" X 6" SMOOTH BASALT STONE 8" BELOW BOTTOM OF ROADWAY BALLAST ON THE PHYSICAL CENTERLINE OF PIERCE ROAD AND 6.2 FEET SOUTH OF THE PHYSICAL CENTERLINE OF GEKELER LANE. WE DID NOT ACCEPT THE STONE AS THE SECTION CORNER BECAUSE IT WAS NOT OF RECORD AND IT WAS 6.2 FEET SOUTH OF THE EXISTING CENTERLINE OF GEKELER LANE. AGAIN WE DO FEEL IT HAS VALUE AS SUPPORTING EVIDENCE BASED UPON THE SAME REASONS OUTLINED FOR THE OTHER STONE DESCRIBED ABOVE. THE DOUBLE PROPORTIONED POSITION AS SHOWN ON COUNTY SURVEY 43-84 DOES NOT FIT THE IMPROVEMENTS AS SHOWN ON DETAIL "E" ON SHEET 4.

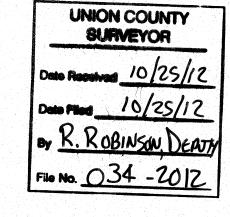
THE EXISTING ROAD BED OF PIERCE ROAD IS THE BEST AVAILABLE EVIDENCE OF THE LOCATION OF THE SECTION CORNER. IN SEPTEMBER OF 1876 GEKELER ROAD WAS ORDERED OPENED IN COMMISSIONER'S JOURNAL B, PAGE 50. THE POINT OF BEGINNING WAS THE SOUTHWEST CORNER OF SECTION 12, T3S, R38E, THENCE IT RAN EAST ON THE SECTION LINE. WE ADOPTED THE PHYSICAL CENTERLINE INTERSECTION OF PIERCE ROAD AND GEKELER LANE AS THE POSITION OF THE SECTION CORNER. AT IT'S POSITION WE SET A MONUMENT AS DETAILED IN THE CORNER NOTES ON SHEET 3. (SEE DRAWING DETAIL "E", SHEET 4). AS SHOWN ON SHEET 5, DETAILS "F" AND "G", COMPUTED ONE-QUARTER CORNER POSITIONS EAST AND WEST OF THIS POSITION AGREE WITH THE EXISTING IMPROVEMENTS (NORTH-SOUTH FENCE LINES AND BUCHANAN ROAD CENTERLINE).

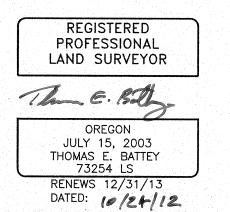
**PETAIL D. SHEET 4:** ANOTHER AREA WAS EXCAVATED IN A SEARCH FOR THE ONE-QUARTER CORNER COMMON TO SECTIONS 11, AND 12, T. 35. R. 38E. THE SEARCH AREA WAS THE CENTERLINE OF PIERCE ROAD IN THE VICINITY OF A FENCE LINE TO THE WEST AND A LONG ESTABLISHED TREE LINE TO THE EAST. MANY WOOD FRAGMENTS AND A 6" X6" WOOD POST, LYING HORIZONTALLY, WERE FOUND AS SHOWN ON THE DETAIL DRAWING ON SHEET 4. A POSITION WAS ESTABLISHED FOR THIS CORNER BY USING A STANDARD SINGLE PROPORTION BETWEEN THE SECTION CORNERS LYING TO THE NORTH AND SOUTH. THIS POSITION IS COINCIDENT WITH THE PHYSICAL CENTERLINE OF PIERCE ROAD, 1.8 FEET NORTH OF THE WESTERLY FENCE LINE EXTENDED TO THE EAST AND 11.9 FEET NORTH OF THE EASTERLY TREE LINE EXTENDED TO THE WEST. WE SET A MONUMENT AS DETAILED IN THE CORNER NOTES ON SHEET 3.

**DETAIL H. SHEET 5:** ANOTHER AREA WAS EXCAVATED IN A SEARCH FOR THE ONE-QUARTER CORNER COMMON TO SECTIONS 13, AND 14, T. 35. R. 38E. THE SEARCH AREA WAS THE CENTERLINE OF PIERCE ROAD IN THE VICINITY OF 2 FENCE LINES AND A LONG ESTABLISHED TREE LINE TO THE WEST AND A FENCE LINE AND A LONG ESTABLISHED TREE LINE TO THE EAST AS SHOWN ON THE DETAIL DRAWING ON SHEET 4. NO EVIDENCE OF THE ONE-QUARTER CORNER WAS FOUND. A POSITION WAS ESTABLISHED FOR THIS CORNER BY USING A MODIFIED SINGLE PROPORTION BETWEEN THE SECTION CORNER LYING TO THE NORTH AND THE EXISTING BRASS CAP TO THE SOUTH. A POINT WAS ESTABLISHED AT THE MIDPOINT OF A STRAIGHT LINE BETWEEN SAID EXISTING SECTION CORNERS. THEN A PERPENDICULAR LINE WAS DRAWN FROM THE MIDPOINT TO THE EXISTING PHYSICAL CENTERLINE OF PIERCE ROAD. A STANDARD SINGLE PROPORTION POSITION WOULD LIE 12.6 FEET TO THE EAST OF THE ROADWAY CENTERLINE. PIERCE ROAD WAS ESTABLISHED ON THE SECTION LINE AND IS THE BEST EVIDENCE OF THE ONE-QUARTER CORNER'S EAST-WEST POSITION. THIS POSITION LIES 2.2 FEET SOUTH OF THE WESTERLY FENCE AND LINES UP WITH THE EASTERLY FENCE AS SHOWN ON THE DETAIL DRAWING ON SHEET 5.

**PETAIL I. SHEET 5:** AT THE SECTION CORNER COMMON TO SECTIONS 14, 13, 24 AND, 23, T. 35. R. 38E WE FOUND A BRASS CAP IN CASE SET BY COUNTY SURVEY 1-74. SURVEY 1-74 ACCEPTED THE CENTER OF THE FENCED RIGHT-OF-WAY OF PIERCE ROAD AS THE WEST LINE OF SECTION 24 AND SET THIS CORNER ACCORDINGLY. WE ACCEPT THIS CORNER POSITION, BEING IN HARMONY WITH OUR RATIONALE OF ESTABLISHING THE OBLITERATED SECTION CORNERS IN PIERCE ROAD TO THE NORTH. THE RIGHT-OF-WAY OF PIERCE ROAD FROM BOND ROAD SOUTH TO AIRPORT ROAD IS WELL ESTABLISHED AND MONUMENTED.

**DEATIL B. SHEET 4:** NO EXCAVATION WAS DONE IN SEARCH OF THE ONE-QUARTER CORNER COMMON TO SECTIONS I AND 2, T35, R38E. AS IT'S LOCATION FALLS WITHIN THE RIGHT-OF-WAY OF THE COVE HIGHWAY (STATE HIGHWAY NO. 237). THERE IS NO RECORD OF ANY MONUMENTATION FOR THIS SECTION CORNER. THE CALCULATED SINGLE PROPORTIONED QUARTER CORNER POSITION PER COUNTY SURVEY 009-2010 FALLS 29.8 FEET NORTH OF THE COVE HIGHWAY PHYSICAL CENTERLINE AND WAS NOT ACCEPTED AS THE PERPETUATION OF THE CORNERS POSITION. THE POSITION WAS ESTABLISHED FOR THIS CORNER AT THE PHYSICAL CENTERLINE INTERSECTION OF PIERCE ROAD AND THE COVE HIGHWAY (STATE HIGHWAY NO. 237). STATE HIGHWAY RIGHT-OF-WAY MAP 05B-02-07 AND SUPPORTING DEEDS (RW 2654, RW 2656) FOR RIGHT-OF-WAY ACQUISITION INDICATE THE SECTION CORNER WAS LOCATED AT THIS POSITION AT ENGINEER'S STATION 106+32.9. WHEN THE CENTERLINE ALIGNMENT IS POSITIONED ON THE PHYSICAL ROAD INTERSECTION AND ROTATED TO A CENTERLINE ROAD LOCATION POINT ONE MILE TO THE WEST, THE ALIGNMENT AGREES WITH THE PHYSICAL CENTERLINE OF THE ROAD WITHIN A TOLERANCE OF I FOOT. IN ADDITION, TIES FROM THE COMPUTED CENTERLINE TO FOUND AND CALCULATED SECTION CORNERS AGREE WITH THE ODOT RIGHT-OF-WAY MAP WITHIN A FEW FEET AS SHOWN ON SHEET 2.





MAP OF SURVEY
MONUMENTATION
SECTIONS 1, 2, 11, 12, 13 & 14
T3S, R38E, W.M.

UNION COUNTY, OREGON

SCALE:
NO SCALE
DATE:
OCT. 2012
JOB NO.

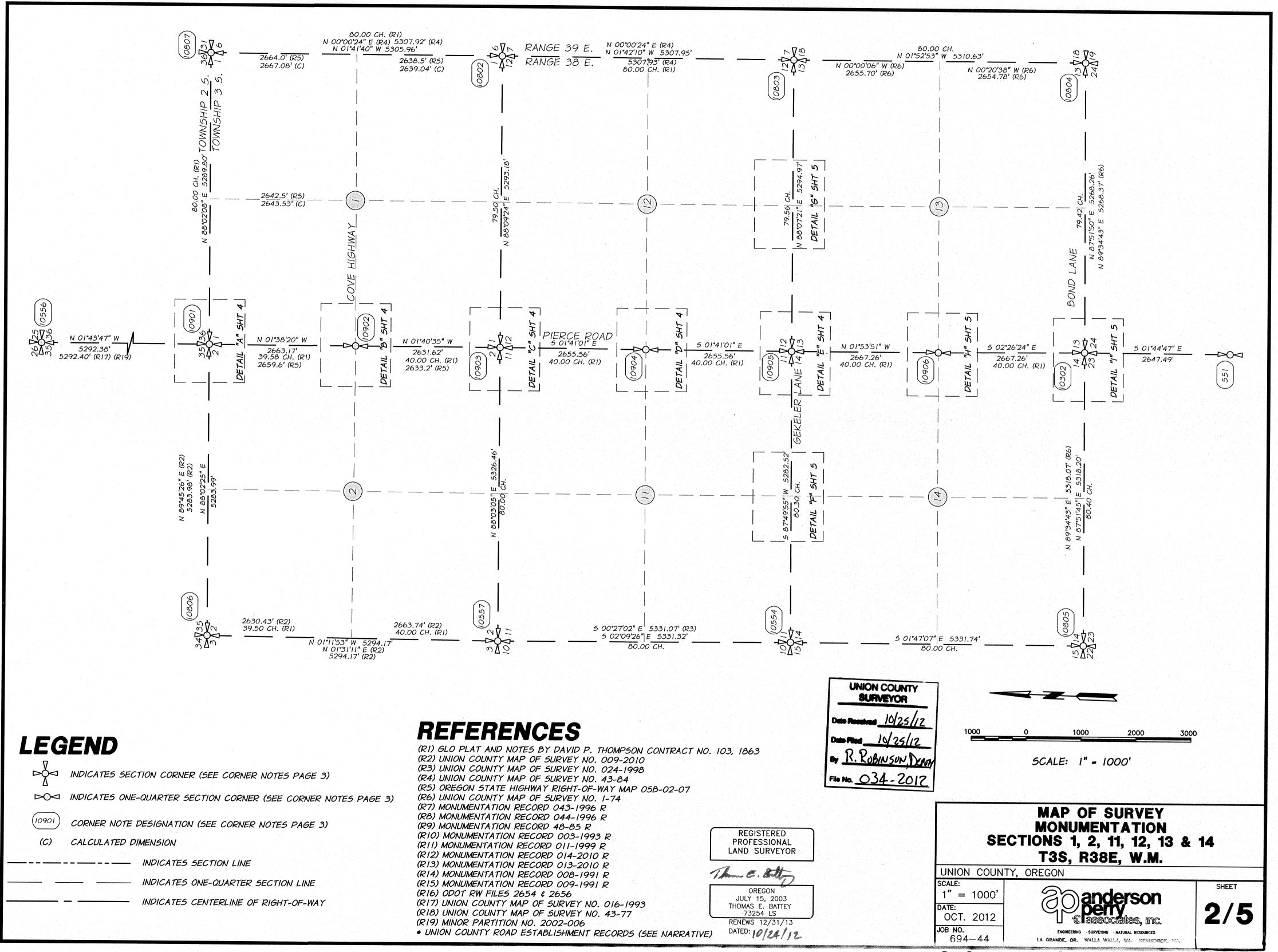
694-44



LA GRANDE, OR. WALLA WALLA, WA.

1/5

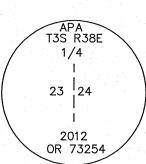
SHEET



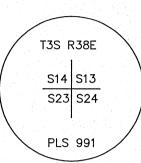
## **CORNER NOTES**

\* SEE MONUMENTATION RECORDS FILED SEPARATELY FOR MONUMENTS REESTABLISHED OR RESTORED DURING THIS SURVEY.

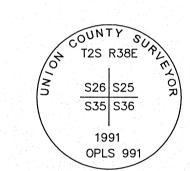
SET 5/8" BY 30" REBAR WITH 2" ALUMINUM DISK IN MONUMENT CASE MARKED AS SHOWN. (SEE EXISTING MONUMENTATION RECORD 009-1991 R)



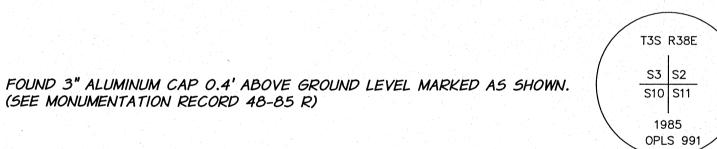
(10302) FOUND 2 1/2" BRASS CAP IN MONUMENT CASE MARKED AS SHOWN. (SEE MONUMENTATION RECORD 008-1991 R)



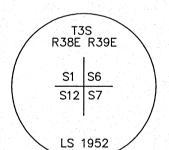
POSITION ESTABLISHED FROM BEARING OBJECTS. MONUMENT DESTROYED BY RECENT GAS PIPELINE CONSTRUCTION. (SEE MONUMENTATION RECORD 044-1996 R)



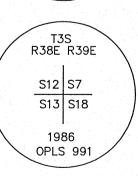
FOUND 2 1/2" ALUMINUM CAP IN MONUMENT CASE MARKED AS SHOWN. 10556 (SEE MONUMENTATION RECORD 011-1991 R)



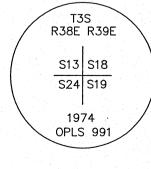
FOUND 2 1/2" BRASS CAP O.8' BELOW SURFACE MARKED AS SHOWN. 10802 (SEE MONUMENTATION RECORD 014-2010 R)



FOUND 2 1/2" BRASS CAP IN MONUMENT CASE MARKED AS SHOWN. (SEE MONUMENTATION RECORD 013-2010 R)



FOUND 2 1/2" BRASS CAP 0.5' BELOW SURFACE MARKED AS SHOWN. (SEE MONUMENTATION RECORD 026-2010 R)



FOUND 2 1/2" BRASS CAP IN MONUMENT CASE MARKED AS SHOWN. (SEE MONUMENTATION RECORD 043-1996 R)



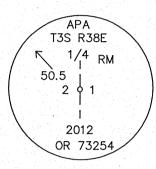
(10806) CALCULATED POSITION PER (R2).

CALCULATED POSITION PER (R4). (10807)

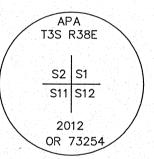
FOUND 2 1/2" BRASS CAP IN MONUMENT CASE MARKED AS SHOWN. (10901 (SEE MONUMENTATION RECORD 003-1993 R)



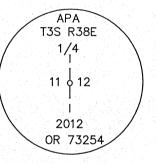
SET 5/8" BY 30" REBAR WITH 2" ALUMINUM DISK FOR REFERENCE MONUMENT MARKED AS SHOWN. ONE-QUARTER CORNER POSITION NOT SET. (SEE DETAIL "B" SHEET 4)



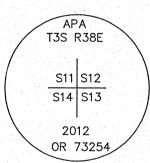
(10903 SET 5/8" BY 30" REBAR WITH 2" ALUMINUM DISK IN MONUMENT CASE MARKED AS SHOWN. (SEE DETAIL "C" SHEET 4)



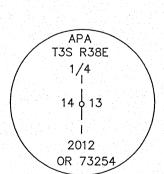
SET 5/8" BY 30" REBAR WITH 2" ALUMINUM DISK IN MONUMENT CASE AND (10904) MARKED AS SHOWN. (SEE DETAIL "D" SHEET 4)



SET 5/8" BY 30" COPPER CLAD SMOOTH IRON ROD WITH 2 1/2" BRASS DISK IN MONUMENT CASE AND MARKED AS SHOWN. (SEE DETAIL "E" SHEET 4)



SET 5/8" BY 30" REBAR WITH 2" ALUMINUM DISK IN MONUMENT CASE AND MARKED AS SHOWN. (SEE DETAIL "H" SHEET 5)



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**UNION COUNTY** SURVEYOR Date Received 10/25/12 Date Fled 10/25/12 

REGISTERED **PROFESSIONAL** LAND SURVEYOR

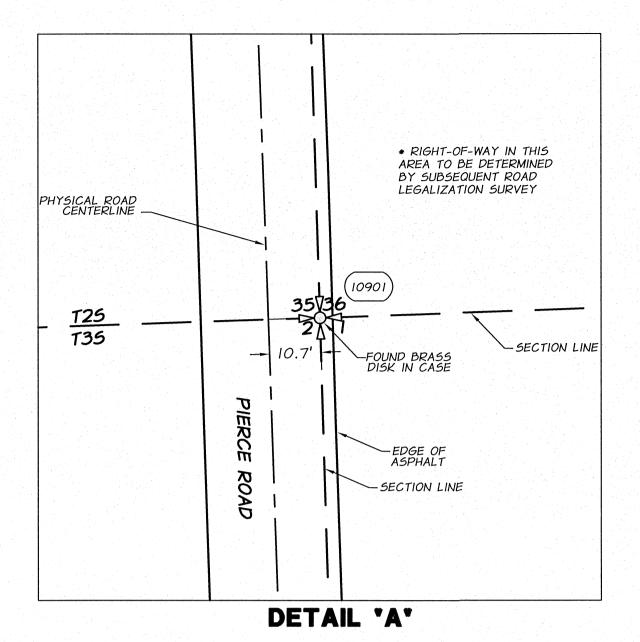
The E. Bil OREGON JULY 15, 2003 THOMAS E. BATTEY RENEWS 12/31/13 DATED: 10/24/12

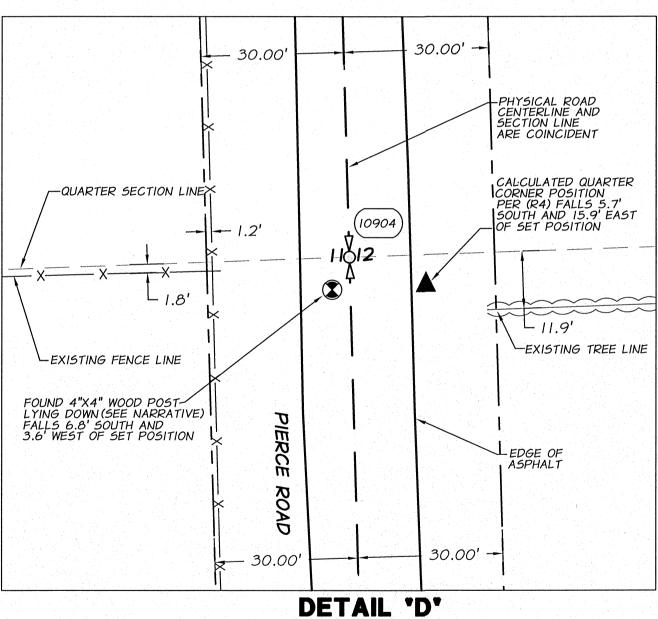
MAP OF SURVEY **MONUMENTATION** SECTIONS 1, 2, 11, 12, 13 & 14 T3S, R38E, W.M.

UNION COUNTY, OREGON AS SHOWN DATE: OCT. 2012 JOB NO.

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SHEET





# **LEGEND**

INDICATES SECTION CORNER (SEE CORNER NOTES PAGE 3)

INDICATES ONE-QUARTER SECTION CORNER (SEE CORNER NOTES PAGE 3)

(10901) CORNER NOTE DESIGNATION (SEE CORNER NOTES PAGE 3)

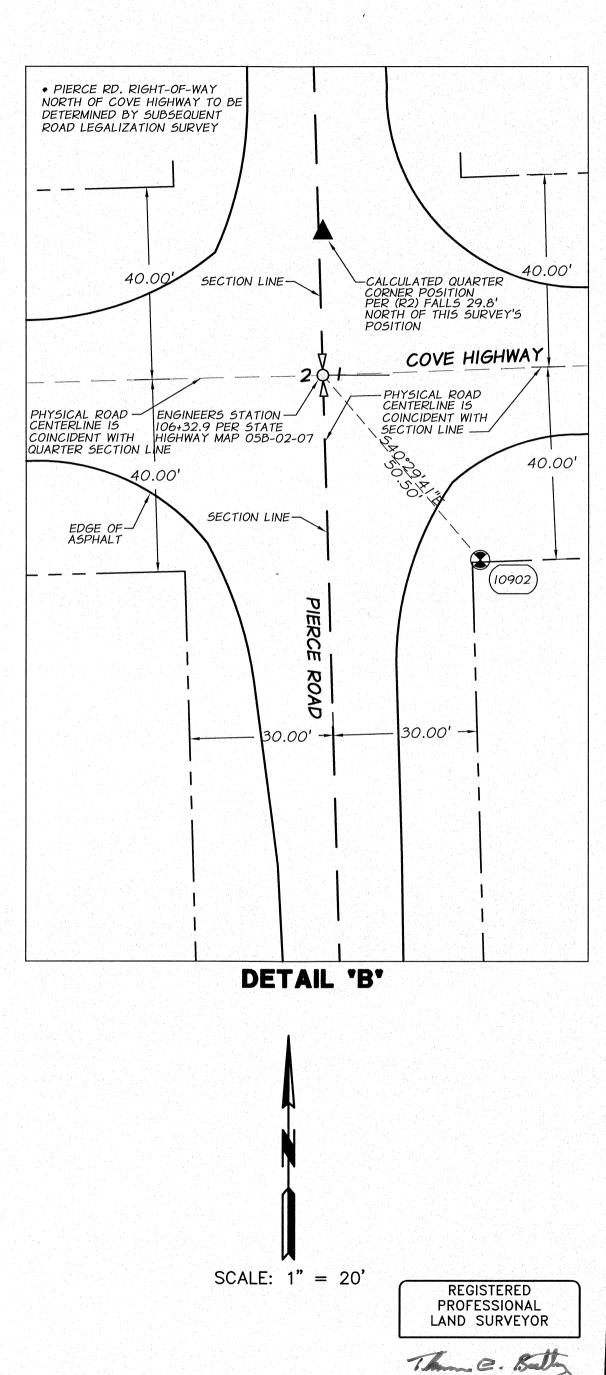
MONUMENT AS DESCRIBED

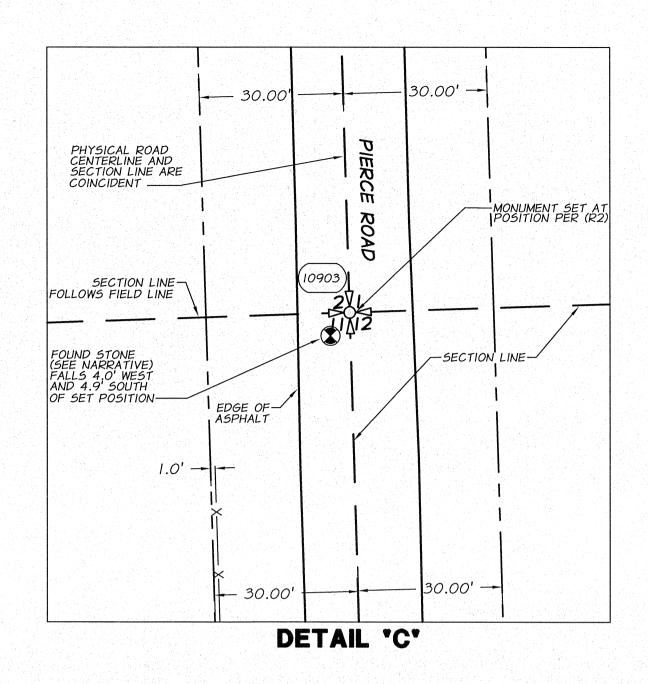
CALCULATED POSITION AS DESCRIBED

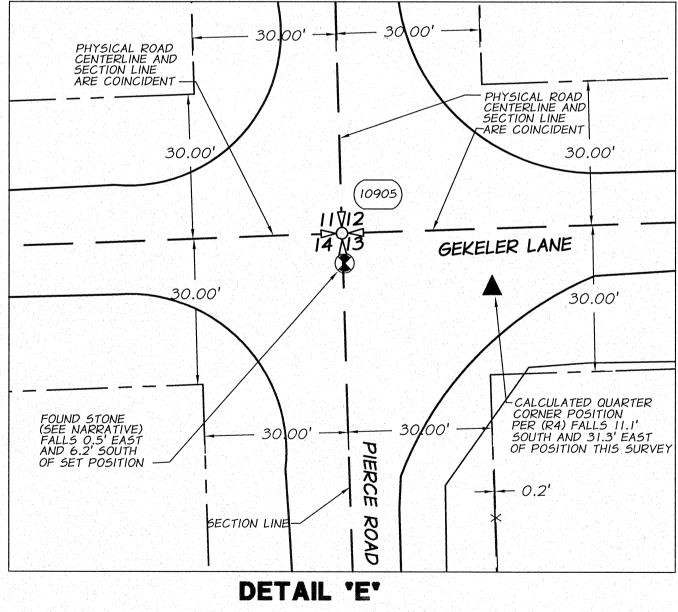
INDICATES SECTION LINE

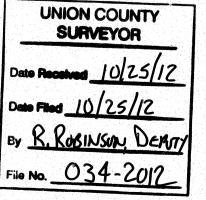
INDICATES ONE-QUARTER SECTION LINE

INDICATES CENTERLINE OF RIGHT-OF-WAY









OREGON JULY 15, 2003 THOMAS E. BATTEY 73254 LS

RENEWS 12/31/13 DATED: 10/24/12 MAP OF SURVEY
MONUMENTATION
SECTIONS 1, 2, 11, 12, 13 & 14
T3S, R38E, W.M.

UNION COUNTY, OREGON

SCALE:

1" = 20'

DATE:

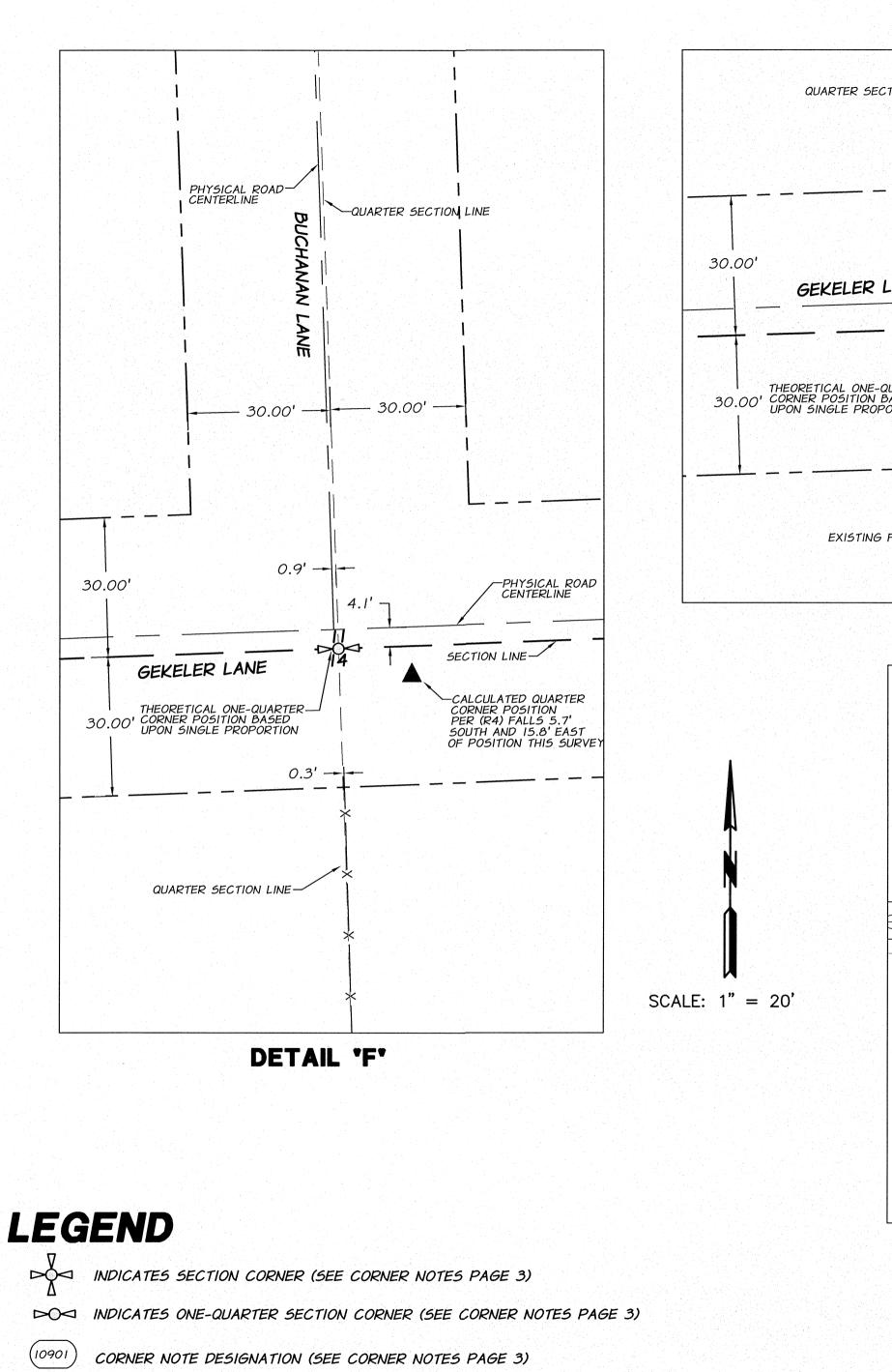
OCT. 2012

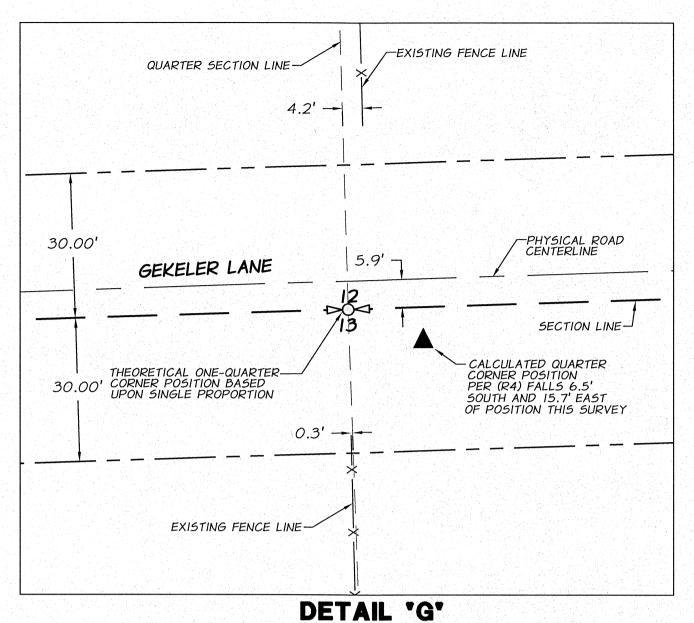
JOB NO.

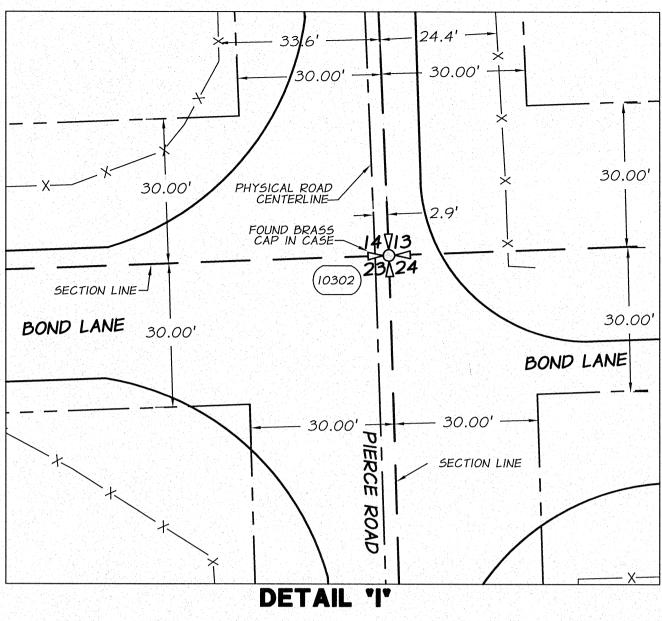
Engineering surveying natural resources

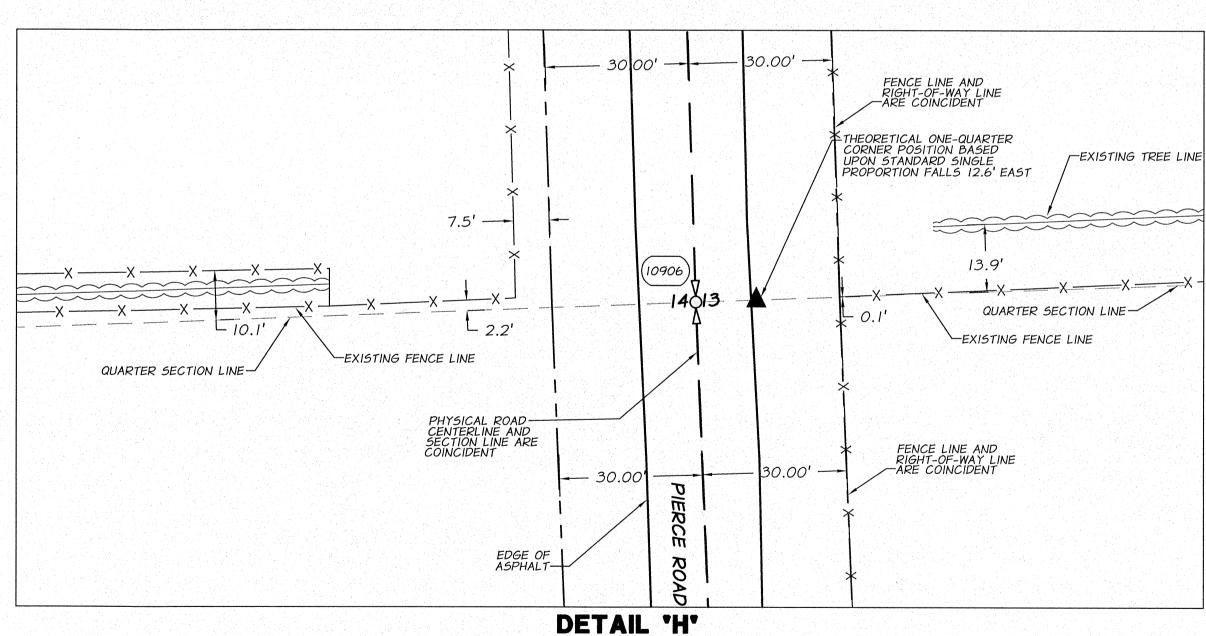
694-44

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MONUMENT AS DESCRIBED

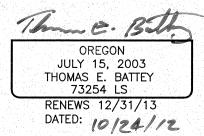
CALCULATED POSITION AS DESCRIBED

INDICATES SECTION LINE

INDICATES ONE-QUARTER SECTION LINE

INDICATES CENTERLINE OF RIGHT-OF-WAY

REGISTERED **PROFESSIONAL** LAND SURVEYOR



**UNION COUNTY** SURVEYOR Date Received 10/25/12 Date Fled 10/25/12

By R. ROBINSON, DEPUT! File No. 034-2012

MAP OF SURVEY **MONUMENTATION** SECTIONS 1, 2, 11, 12, 13 & 14 T3S, R38E, W.M.

UNION COUNTY, OREGON SCALE: 1" = 20' DATE: OCT. 2012

JOB NO.

694-44

SHEET 5/5