

COUNTY SURVEYORS FILE DATA
DO NOT REMOVE FROM OFFICE

RECORD OF SURVEY

FILED

OLALLA CREEK (RIDING) BRIDGE SECTION, UPPER OLALLA ROAD

Date: 10-16-1998 By: JP
This survey consists of:
Map: M130-43
Narrative: _____
Corner Rpt: _____
DOUGLAS COUNTY SURVEYOR

DOUGLAS COUNTY

LOCATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 16 AND
THE NORTHWEST ONE-QUARTER OF SECTION 21, TOWNSHIP 29 SOUTH,
RANGE 7 WEST, WILLAMETTE MERIDIAN,
DOUGLAS COUNTY, OREGON



OCT. 1, 1998

0 100 200 400
SCALE: 1" = 200'

QUARTER SECTION CORNER
FD 2-1/2" BRASS CAP
STAMPED "COUNTY
SURVEYORS OFFICE
T29S R7W 1716
ON 1" PIPE, UP 1.0
AND 4 B.T.'S

REFERENCES

SURVEYS
M62-3 BY McLIND, 1976
M114-13 BY NORTHCRAFT, 1991.
M115-22 BY NORTHCRAFT, 1992.
BLM 1966 SURVEY IN SECTION 21
APPROVED 6/5/70

DEEDS
BK 248, PG 343
BK 248, PG 344
BK 268, PG 786

ROAD PLAN
CO. ROAD NO. 38 BY
F.C. FREAR, 1955.

**DAVID EVANS
AND ASSOCIATES, INC.**
590 CENTER ST. NE SUITE 605
SALEM, OR. 97301-3756 (503) 861-8635

LEGEND

- FD MONUMENT AS NOTED
- SET 5/8"x30" IRON REBAR W/
YELLOW PLASTIC CAP MKD.
"DEA INC.", TOP DN. 0.1 FT.
- FD GPS MONUMENTS SET BY
DAVID EVANS AND ASSOCIATES
3" BRASS CAP ON 2"x30"
GALVANIZED IRON PIPE MARKED
"DAVID EVANS AND ASSOCIATES,
GPS STA D#, 1996" SET IN CONCRETE
SEE GPS SURVEY REPORT APRIL 1996
- DN DOWN
- B.T. BEARING TREE
- PC POINT OF CURVATURE
- PT POINT OF TANGENCY
- PI POINT OF INTERSECTION
- FD FOUND
- I.R. IRON ROD
- W/ WITH
- () RECORD VALUE, CO. RD. NO. 38
- [] RECORD VALUE, SURVEY AS NOTED
- Ⓟ CURVE LABEL IN DATA TABLE
- Ⓡ SFNF SEARCHED FOR NOT FOUND

PROPERTY CORNER
356+92.03
RT 30.00

UP 0.9, M62-3
356+91.36 52.76'RT.
DESTROYED BY CONST.
RESET IN ORIGINAL POS.

DETAIL A
1" = 30'

DETAIL B
1" = 200'

NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO DOCUMENT THE PROJECT RESOLUTION OF THE CENTERLINE OF UPPER OLALLA ROAD, COUNTY ROAD NO. 38, AND THE LINE BETWEEN SECTIONS 16 AND 21, AND TO PERPETUATE THE LOCATIONS OF FOUND MONUMENTS THAT WERE DISTURBED OR DESTROYED BY PROJECT CONSTRUCTION. CONTROL FOR THIS PROJECT IS BASED ON GLOBAL POSITIONING SYSTEM (GPS) MONUMENTS D1 AND D2 AS SHOWN. BEARINGS ARE OREGON STATE PLANE (NORTH AMERICAN DATUM (NAD) 1983) GRID BEARINGS. TRUE NORTH IS CLOCKWISE FROM GRID NORTH, THE CONVERGENCE ANGLE BEING -2° 04' 53" AT MONUMENT D1, DISTANCES ARE AS MEASURED ON THE GROUND. FOUND MONUMENTS WERE SURVEYED MARCH 27-30 AND APRIL 29, 1998. MONUMENTS NOTED AS STILL IN WERE RECOVERED AND TIED ON SEPT. 2, 1998. FIELD CREWS RETURNED TO THE PROJECT IN JUNE, 1998 TO PERFORM POST CONSTRUCTION RIGHT-OF-WAY MONUMENTATION. DURING THIS EFFORT THEY FOUND MONUMENTS NOT PREVIOUSLY RECOVERED IN THE RECONSTRUCTION RECORD OF SURVEY FILED BY WESTERSUND, DOUGLAS COUNTY SURVEY NO. M126-71. THIS POSTCONSTRUCTION RECORD OF SURVEY CONSIDERS THE PREVIOUSLY RECORDED SURVEY BY WESTERSUND TO HAVE ERRED IN NOT CONSIDERING EXISTANT MONUMENTATION. THIS SURVEY ATTEMPTS TO RECTIFY THIS SITUATION BY HOLDING TO WHAT THIS SURVEYOR BELIEVES TO BE FOUND ORIGINAL MONUMENTATION ESTABLISHED BY FLOYD FREAR IN HIS 1955 SURVEY FOR DOUGLAS COUNTY LEGAL DESCRIPTIONS FOR PROPERTY OWNERS ADJACENT TO THE PROJECT AREA CALL FOR DIMENSIONAL RELATIONSHIPS TAKEN DIRECTLY FROM THE FREAR SURVEY (SEE BK. 248, PG. 343, BK. 248, PG. 344 AND BK. 268, PG. 786). ON SEPT. 2, 1998, I RETURNED TO THE PROJECT AREA AND COMMENCED A MORE EXHAUSTIVE SEARCH FOR RIGHT-OF-WAY MONUMENTATION ESTABLISHED BY FREAR AFTER PROTRACTING RECORD RELATIONSHIPS FROM MONUMENTS RECOVERED BY MY FIELD SURVEY CREW IN JUNE, 1998. THE ACCOMPANYING SURVEY PLAT SHOWS THE RESULTS OF THOSE EFFORTS. THIS SURVEYOR BELIEVES THAT MR. FREAR, FORMER DOUGLAS COUNTY ENGINEER, SET 3/4 INCH DIAMETER REBAR AT EVERY POINT OF CURVATURE AND TANGENCY ALONG THE ALIGNMENT HE REFERS TO IN HIS SURVEY OF COUNTY ROAD NO. 38, THOUGH AS YET WE HAVE BEEN UNABLE TO RECOVER FIELD NOTES AUTHENTICATING THIS SUPPOSITION. THE AGE, CONDITION AND RELATIVE RELATIONSHIP TO EXISTING OCCUPATIONAL EVIDENCE OF THIS FOUND MONUMENTATION POINTS TO THE FREAR SURVEY. ADDITIONALLY, THE RELATIVE POSITIONS OF FREAR'S MONUMENTS ARE CONSISTENT WITH SURVEY METHODS AND POSITIONAL RELIABILITY FOR THE 1955 TIME FRAME.

I DETERMINED THE CENTERLINE OF COUNTY ROAD 38 TO LIE AT PROPORTIONAL RELATIONSHIPS TO FOUND MONUMENTATION ALONG THE RIGHT-OF-WAY AS NOTED ON THE ACCOMPANYING PLAT, HOLDING THE FREAR SURVEY OF SAID ROADWAY AS THE BASIS FOR PRORATION. WHERE MONUMENTS WERE FOUND AT OPPOSING CURVE POINTS, CENTERLINE WAS DETERMINED TO LIE MIDWAY BETWEEN FOUND MONUMENTS UNLESS NOTED OTHERWISE.

THE INVERSE BETWEEN FOUND MONUMENTS AT 330+49.58PC LT. & 342+44.31PC LT. WAS N2°57'05"E 1185.86FT. THE COMPUTED RECORD VALUE FROM THE FREAR SURVEY WAS N°50'11"E 1186.69 FT. THE INVERSE BETWEEN FOUND MONUMENTS AT 330+49.58 PC RT. & 342+44.31PC LT. WAS N°57'08"E 1141.57 FT. RECORD VALUE FROM THE FREAR SURVEY WAS N1°09'34"W 1142.48 FT. THE AVERAGE PRORATE IN DISTANCE FOR THIS SEGMENT WAS ((1142.48+1186.69)/(1141.57+1185.86))=1.00074761. THE AVERAGE DIFFERENCE IN ANGLE WAS ((N1°09'34"W-N°57'08"E)+(N2°57'05"E-N°50'11"E))/2=2°06'48". I APPLIED THE PRORATION IN DISTANCE TO THE RECORD DISTANCES AND THE AVERAGE DIFFERENCE IN BEARING TO ARRIVE AT THE DERIVED RELATIONSHIPS NOTED ON THE ACCOMPANYING PLAT FOR THE ROADWAY CENTERLINE BETWEEN ENGINEER'S CENTERLINE STATION 330+59.58PC AND 342+44.31PC. CENTERLINE AT 342+44.31PC WAS HELD TO LIE 30.00FT. W'LY. FROM THE FOUND R/W MONUMENT.

CURVE (A) PARAMETERS WERE DERIVED BY COMPUTING THE DELTA ANGLE USING THE COMPUTED ENTRY TANGENT BETWEEN 333+24.57 PT AND 342+44.31PC, AS DETERMINED IN THE PRECEDING PARAGRAPH AND THE INVERSE BETWEEN FOUND RIGHT-OF-WAY MONUMENTS AT 346+01.95PT LT. AND 352+49.99PC LT. I USED THE INVERSE VALUE OF THE LONG CHORD BETWEEN FOUND MONUMENTS AT 342+44.31PC LT. AND 346+01.95PT LT. TO CONTROL COMPUTATION OF THE BALANCE OF CURVE PARAMETERS YIELDING THE VALUES AS SHOWN ON THE ACCOMPANYING PLAT. THIS PROCEDURE WAS ALSO USED FOR CURVE (C) PARAMETERS. I COMPUTED THE CENTERLINE AT ENGINEER'S STATION 360+16.15 TO LIE ON THE LINE DRAWN BETWEEN FOUND MONUMENTS AT 360+16.15PT 30FT. LT. AND 360+16.15PT 50FT. RT. AT A PROPORTIONAL RELATIONSHIP OF (30/80)x79.97 FROM 360+16.15PT 30FT. LT. I COMPUTED THE CENTERLINE AT ENGINEER'S STATION 362+82.17PT 30FT. LT. AND 362+82.17PT 50FT. RT. AT A PROPORTIONAL RELATIONSHIP OF (30/80)x 80.07 FROM 362+82.17PT 30FT. LT. THE INVERSE BETWEEN THESE COMPUTED CENTERLINE POINTS DEFINED THE ENTRY TANGENT TO CURVE (D). I HELD THE INVERSE OF THE LONG CHORD BETWEEN FOUND MONUMENTS AT 362+82.17PC 30FT. LT. & 368+87.21PT 30FT. LT. TO CONTROL COMPUTATION OF THE BALANCE OF CURVE (D) PARAMETERS AFTER HOLDING THE RECORD DELTA FOR THIS CURVE OF 42°21'10".

NARRATIVE (CONTINUED)

I COMPUTED THE ENGINEER'S CENTERLINE LOCATION BETWEEN STATIONS 352+49.99PC AND 360+16.15PT USING THE FOLLOWING RELATIONSHIPS:
A). INVERSED BETWEEN CENTERLINE PREVIOUSLY COMPUTED AT 352+49.99PC AND 360+16.15PT AND USED THIS COMPUTED DISTANCE AS A BASIS FOR PRORATION TO COMPUTE THE LENGTHS OF THE ENTRY TANGENT AT CURVE (B) AND THE EXIT TANGENT AT CURVE (C). THIS RESULTED IN A PRORATION FACTOR OF 765.212(MEAS.)/764.482(COMPUTED FROM RECORD DATA) = 1.0009549.
B). APPLIED THIS PRORATION FACTOR TO THE RECORD TANGENT LENGTHS OF CURVES (A) & (B) AND EXTENDED THE ENTRY TANGENT SOUTHERLY AT CURVE (B) AND NORTHERLY AT CURVE (C) THE PRORATED TANGENT DISTANCE. I THEN COMPUTED THE INVERSE BETWEEN THESE COMPUTED PI'S TO DEFINE THE DIRECTION OF THE TANGENT BETWEEN CURVES (B) AND (C).
C). THIS COMPUTED DIRECTION FOR THE TANGENT BETWEEN 355+13.91PT AND 358+45.52PC CONTROLLED THE DELTA ANGLES FOR CURVES (B) AND (C). I THEN COMPUTED CURVE PARAMETERS FOR THESE TWO CURVES FROM THIS INVERSED TANGENT BEARING AND THE PRORATED TANGENT DISTANCES BASED UPON THE FACTOR DETERMINED IN A). ABOVE.
D). THE RESULTANT TANGENT DISTANCE BETWEEN 355+13.91PT AND 358+45.52PC EQUALS THE RECORD TANGENT DISTANCE OF 331.61x1.0009549=331.93FT. MY COMPUTED VALUE.
RIGHT-OF-WAY WIDTHS WERE HELD AT RECORD VALUES FROM THE PREVIOUSLY COMPUTED CENTERLINE.

CENTERLINE DEED CALLS
FROM WEST 1/4 CORNER SECTION 16

DEED	C/L STATION	CALL	SURVEY
248-343	342+44.31	SOUTH 1249 EAST 392	S 2°07'44" W 1249.29 S 87°52'16" E 386.99
248-344	346+01.95	SOUTH 1601 EAST 415	S 2°07'44" W 1602.05 S 87°52'16" E 407.94
248-343	346+70.00	SOUTH 1670 EAST 431	S 2°07'44" W 1668.74 S 87°52'16" E 424.69
268-786	355+13.91	SOUTH 2492.8 EAST 600.3	S 2°07'44" W 2491.89 S 87°52'16" E 600.34
248-344	358+45.52	SOUTH 2823 EAST 616	S 2°07'44" W 2824.23 S 87°52'16" E 605.50

CENTERLINE CURVE TABLE
(RECORD VALUES IN PARENTHESIS)

CURVE ID	DELTA	RADIUS	LENGTH	LONG CHORD
(A)	(21° 27' 30")	(954.93)	(357.64)	(S 1° 17' 00" E 355.55)
	21° 27' 00"	955.64	357.77	S 1° 14' 55" E 355.68
(B)	(13° 11' 45")	(1145.92)	(263.92)	(S 5° 22' 08" E 263.33)
	13° 12' 45"	1145.54	264.16	S 5° 22' 04" W 263.58
(C)	(6° 49' 30")	(1432.40)	(170.63)	(S 2° 11' 00" E 170.52)
	6° 53' 05"	1421.31	170.79	S 2° 12' 14" E 170.68
(D)	(42° 21' 10")	(818.51)	(605.04)	(S 15° 34' 50" W 591.36)
	42° 21' 10"	817.68	604.43	S 15° 33' 58" W 590.76

REGISTERED PROFESSIONAL LAND SURVEYOR
GREGORY A. CRITES
RENEWAL 12/31/99

MAP FILE M130-43

MAP FILE M130-43

DEA JOB NO. DOUG0008