

OREGON DEPARTMENT OF TRANSPORTATION  
**COVER SHEET**  
**HOOD RIVER HWY. AT ODELL HWY.**  
M.P.# 5.09 ON HWY. #281  
S.E. 1/4 SEC. 15, T. 2 N., R. 10 E., W.M.  
HOOD RIVER COUNTY, OREGON  
OCTOBER, 1992

**NARRATIVE**

**PURPOSE**

The purpose of this survey is to show the horizontal and vertical control established for a proposed Oregon Department of Transportation (O.D.O.T.) project along the Hood River Highway at the Odell Highway Junction. Also shown are existing monuments and their relationship to the recovered right-of-way centerlines.

**BASIS OF BEARING, COORDINATES, AND ELEVATION**

Bearings are true. A compass bearing of S 86°W was sighted between points 2 and 1. The declination was set at 19°30' East.

Assumed coordinates of N 10,000.000 E 20,000.000 were assigned to the East Quarter Corner of Section 15 T. 2 N., R. 10 E., W.M.

Vertical control was established using a found brass disk in the NW. wall of Tucker Bridge. The disk is stamped "STATE HIGHWAY DEPARTMENT F437 1946". The elevation on the disk is 428.038 and is from the National Geodetic Vertical Datum of 1929.

**ALIGNMENT DESCRIPTION**

The Odell Highway Right-of-Way Centerline was recovered by holding found monuments 1008, 1009, and using data found on O.D.O.T. right-of-way map #6B-26-20.

The Hood River Highway Right-of-Way Centerline was recovered by using and holding the description found in the deed recorded in Book 27, Page 356 Hood River County, and using data found on O.D.O.T. right-of-way map #5B-20-12. This alignment fits existing topography very well.

**REFERENCE SURVEYS**

- #85030
- #87056

**O.D.O.T. RIGHT-OF-WAY MAPS**

- 5B-20-12
- 6B-26-20

**EQUIPMENT USED**

WILD T2000 Electronic Theodolite      Serial #310980

WILD D15 Electronic Distance Meter      Serial #51106  
(+/-3MM +/-2PPM)

Tripod Mounted Foresight/Backsight  
(20 second plate bubble on prism carrier)

Hand held prism pole  
(8 minute circle bubble)

**TRAVERSE PROCEDURES**

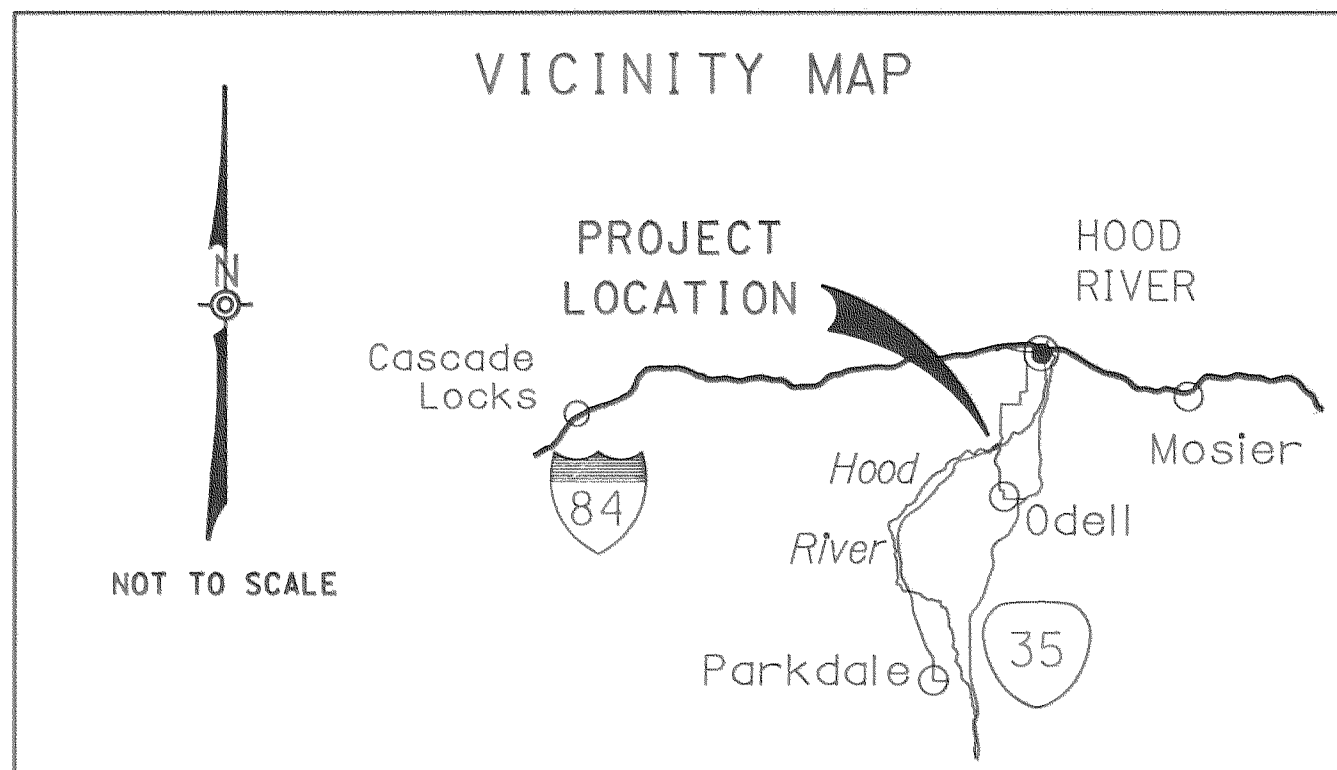
Forced centering methods were used to perform traverse operations. Two sets of horizontal and zenith angles were measured at each station. Two sets of distances were measured forward and back.

The electronic distance meter was checked on a calibrated baseline prior to performing the traverse and at the conclusion of the project. The baseline records and further details regarding the procedures are on file at the originating office.

Side ties to monuments were made with the hand held prism pole. All iron pipe sizes are inside diameter.

The original field notes are on file at:

Department of Transportation  
Roadway Description Supervisor  
207 Transportation Building  
Salem, Oregon 97310  
Phone: 378-3487  
Field Book #3190



**FILED**  
FEB 3, 1993  
Richard A. Arnold  
COUNTY SURVEYOR  
DEPUTY

Exp. date 12-31-93

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

OREGON  
JULY 25, 1990  
JOE H. FERGUSON  
2445

REGION 1, SURVEY GROUP  
5821 NE GLISAN ST  
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(503)731-3239

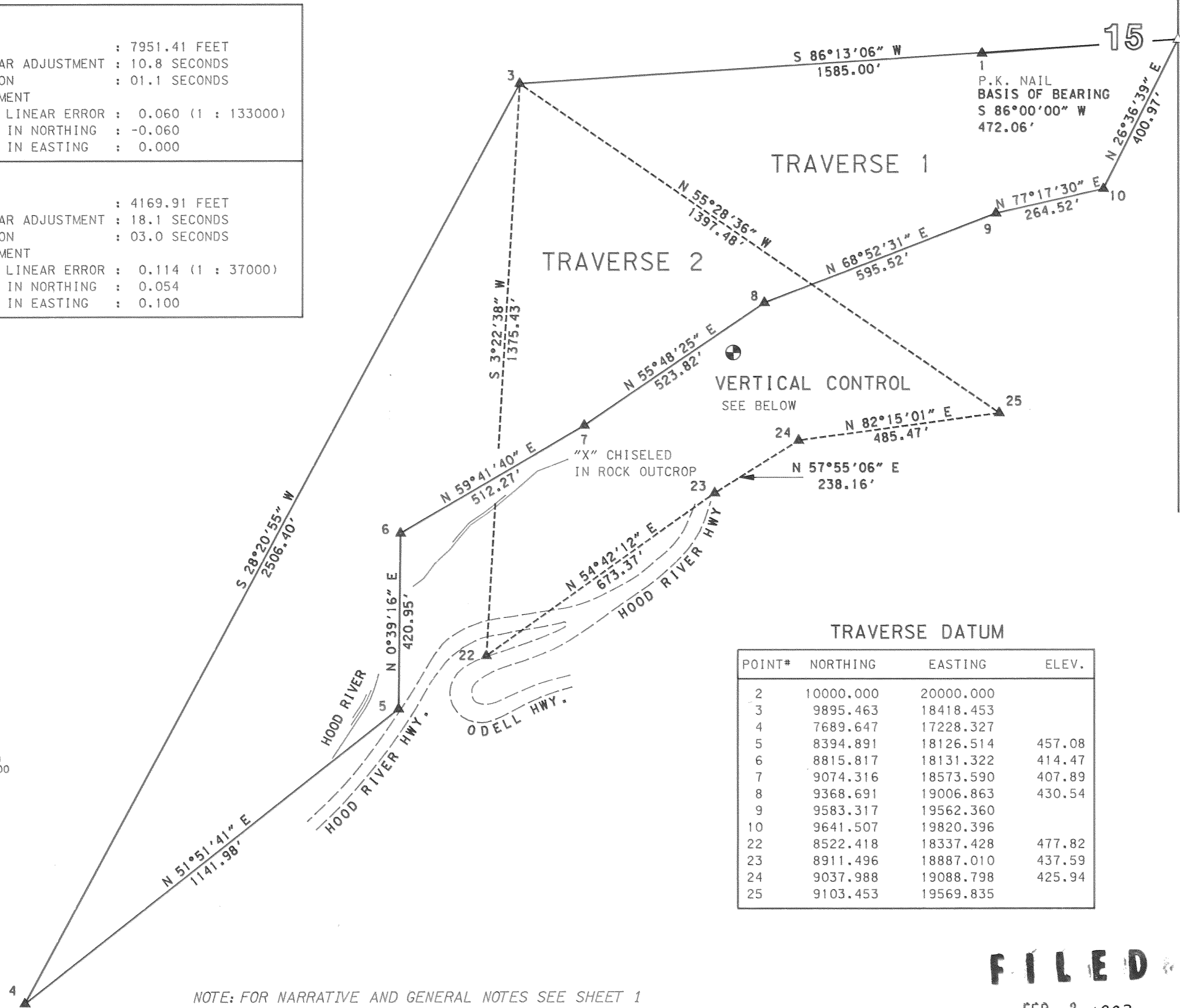
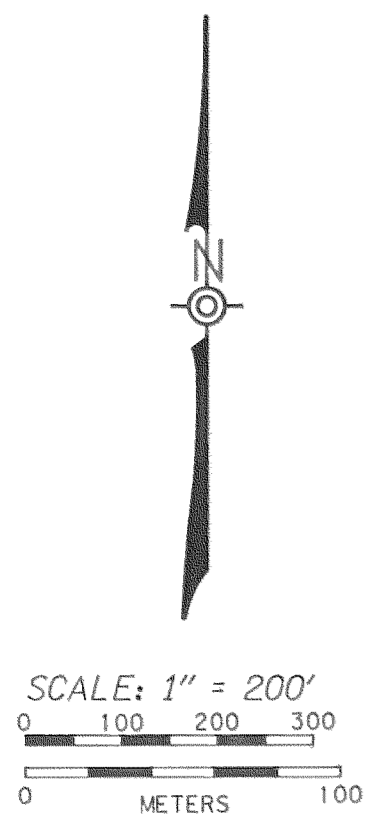
DRAWN BY : S. MUMA  
CALCULATED BY: S. MUMA  
CHECKED BY : J. FERGUSON

**SHEET 1 OF 4**

OREGON DEPARTMENT OF TRANSPORTATION  
**PROJECT CONTROL SHEET**  
**HOOD RIVER HWY. AT ODELL HWY.**  
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**TRAVERSE CLOSURE INFORMATION**

<b>TRAVERSE 1</b>	
LENGTH OF TRAVERSE	: 7951.41 FEET
ANGULAR CLOSURE BEFORE ANGULAR ADJUSTMENT	: 10.8 SECONDS
ANGULAR ADJUSTMENT PER STATION	: 01.1 SECONDS
LINEAR CLOSURE BEFORE ADJUSTMENT	
TOTAL LINEAR ERROR	: 0.060 (1 : 133000)
ERROR IN NORTHING	: -0.060
ERROR IN EASTING	: 0.000
<b>TRAVERSE 2</b>	
LENGTH OF TRAVERSE	: 4169.91 FEET
ANGULAR CLOSURE BEFORE ANGULAR ADJUSTMENT	: 18.1 SECONDS
ANGULAR ADJUSTMENT PER STATION	: 03.0 SECONDS
LINEAR CLOSURE BEFORE ADJUSTMENT	
TOTAL LINEAR ERROR	: 0.114 (1 : 37000)
ERROR IN NORTHING	: 0.054
ERROR IN EASTING	: 0.100



14  
2  
FD. BRASS CAP IN MONUMENT BOX STAMPED  
"HOOD RIVER COUNTY, T. 2 N., R. 10 E., W.M.  
S 15 & S 14 1991"

**LEGEND**

- ▲ SET 5/8" I.R. W/RED PLASTIC CAP STAMPED "ODOT" UNLESS NOTED OTHERWISE
- △ FOUND MONUMENT AS NOTED
- ⊕ FOUND BENCH MARK AS NOTED
- EXISTING EDGE OF PAVEMENT

**TRAVERSE DATUM**

POINT#	NORTHING	EASTING	ELEV.
2	10000.000	20000.000	
3	9895.463	18418.453	
4	7689.647	17228.327	
5	8394.891	18126.514	457.08
6	8815.817	18131.322	414.47
7	9074.316	18573.590	407.89
8	9368.691	19006.863	430.54
9	9583.317	19562.360	
10	9641.507	19820.396	
22	8522.418	18337.428	477.82
23	8911.496	18887.010	437.59
24	9037.988	19088.798	425.94
25	9103.453	19569.835	

**VERTICAL CONTROL**  
FOUND BRASS DISK IN N.W. WALL OF TUCKER BRIDGE  
STAMPED "STATE HIGHWAY DEPARTMENT F437 1946"

NOTE: FOR NARRATIVE AND GENERAL NOTES SEE SHEET 1  
FOR RECOVERY MAP SEE SHEET 3

**FILED**  
FEB 3, 1993  
Richard J. Small  
COUNTY SURVEYOR  
DEPUTY

Exp. date 12-31-93

REGISTERED PROFESSIONAL LAND SURVEYOR

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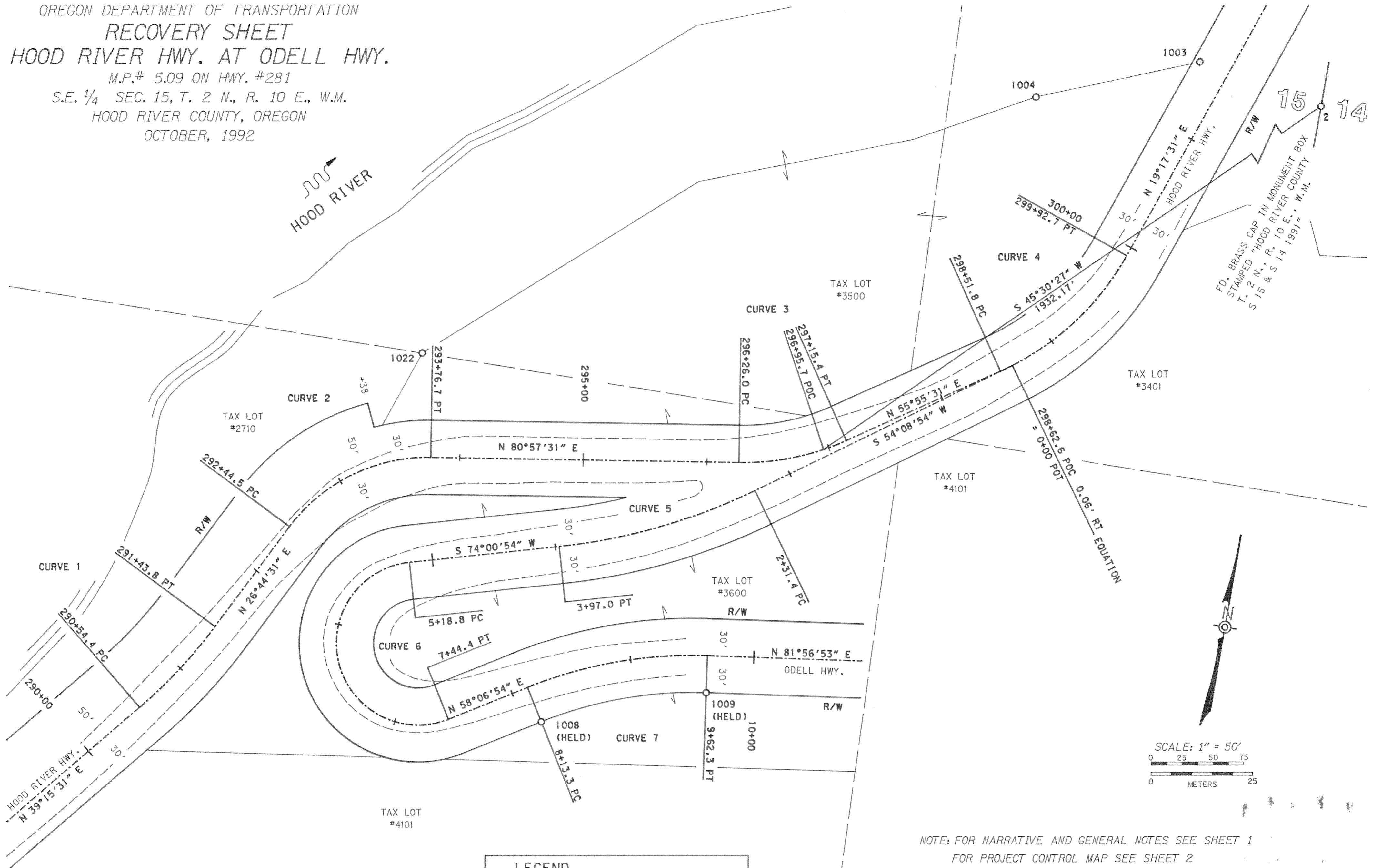
DRAWN BY : S. MUMA  
CALCULATED BY: S. MUMA  
CHECKED BY : J. FERGUSON

OREGON  
JULY 25, 1990  
JOE H. FERGUSON  
2445

**SHEET 2 OF 4**

# 93007

OREGON DEPARTMENT OF TRANSPORTATION  
**RECOVERY SHEET**  
**HOOD RIVER HWY. AT ODELL HWY.**  
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LEGEND	
○	FOUND MONUMENT AS NOTED
---	EXISTING EDGE OF PAVEMENT
( )	RECORD DATA

NOTE: FOR NARRATIVE AND GENERAL NOTES SEE SHEET 1  
 FOR PROJECT CONTROL MAP SEE SHEET 2  
 FOR CURVE DATA AND FOUND MONUMENT DESCRIPTIONS-SEE SHEET 4

**FILED**  
 FEB 3, 1993  
*Rickard & Smith*  
 COUNTY SURVEYORS

Exp. date 12-31-93  
**REGISTERED PROFESSIONAL LAND SURVEYOR**  
*Joe H. Ferguson*  
**OREGON**  
 JULY 25, 1990  
 JOE H. FERGUSON  
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DRAWN BY : S. MUMA  
 CALCULATED BY: S. MUMA  
 CHECKED BY : J. FERGUSON

OREGON DEPARTMENT OF TRANSPORTATION  
**COORDINATE SHEET**  
**HOOD RIVER HWY. AT ODELL HWY.**  
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**HOOD RIVER HIGHWAY  
CALCULATED CENTERLINE COORDINATES**

CURVE 1	CURVE 2	CURVE 3	CURVE 4
PI STATION 290+99.3 N 8379.253 E 18141.518 DELTA = 12°31' 14°00'03" C.L. (14°) LC = 89.2 N 33°00'01" E	PI STATION 293+16.0 N 8573.131 E 18239.206 DELTA = 54°13' 41°00'40" C.R. (41°) LC = 127.3 N 53°51'01" E	PI STATION 296+71.4 N 8630.685 E 18600.898 DELTA = 25°02' 28°00'05" C.L. (28°) LC = 88.7 N 68°26'31" E	PI STATION 299+24.8 N 8773.430 E 18811.932 DELTA = 36°38' 25°59'58" C.L. (26°) LC = 138.5 N 37°36'31" E

**ODELL HIGHWAY  
CALCULATED CENTERLINE COORDINATES**

CURVE 5	CURVE 6	CURVE 7
PI STATION 3+15.0 N 8554.278 E 18505.013 DELTA = 19°52' 11°59'48" C.R. (12°) LC = 164.8 S 64°04'53" W	DELTA = 195°54' 86°50'06" C.L. LC = 130.7 S 23°56'07" E	PI STATION 8+88.9 N 8454.570 E 18483.231 DELTA = 23°50' 15°59'44" C.R. (16°) LC = 147.9 N 70°01'54" E

**COMPUTED POSITIONS TO FOUND MONUMENTS**

POINT	NORTHING	EASTING	CALCULATED CENTERLINE STATION	CALCULATED OFFSET	DESCRIPTION
2	10000.000	20000.000			FD. BRASS CAP IN MONUMENT BOX STAMPED "HOOD RIVER COUNTY T. 2 N., R. 10 E., W.M. S 15 & S 14 1991"
1003	9006.650	18867.244	301+58.15	24.85 LT	FD. 1/2" I.R. W/YELLOW PLASTIC CAP STAMPED "LS 1028", FLUSH
1004	8955.924	18741.595			FD. 1/2" I.R. W/YELLOW PLASTIC CAP STAMPED "LS 1028", FLUSH
1008	8389.162	18434.877	8+13.29	30.00 RT	FD. 3/4" IRON PIPE W/4" X 4" WOOD POST LAYING NEAR
1009	8435.454	18562.281	9+62.30	30.00 RT	FD. 1 1/2" IRON PIPE DOWN, 0.2'
1022	8665.921	18288.506			FD. 1/2" IRON PIPE, GOOD CONDITION, UP 0.1'

**FILED**

FEB 3, 1993  
*Richard P. Ansell*  
COUNTY SURVEYOR

Exp. date 12-31-93

REGISTERED  
**PROFESSIONAL  
LAND SURVEYOR**

*Joe H. Ferguson*  
**OREGON**  
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SHEET 4 OF 4

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