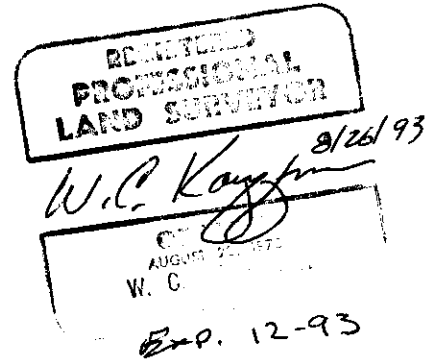




**NORTHWEST BEND  
G.P.S. CONTROL SURVEY**



**GENERAL:**

The purpose of this survey was to establish high precision mapping coordinates on government land corners, section and quarter section corners, with G.P.S. by directly occupying the corners or a secondary monument when not possible to receive adequate gps signals. From the secondary monument a side tie was made by conventional survey methods. The work was performed in of 1992 and 1993 by various personal with 3 Trimble 4000 ST G.P.S. receivers from the Deschutes County Public Works Department. The County Surveyors Office reduced the baseline measurements and computed geodetic coordinates on the NAD 83-91 (North American Datum of 1983, readjusted in 1991) and NAD 83-91 Deschutes County Plane Coordinates in international feet.

**MEASUREMENTS:**

I used Trim 640 & Trim MBP single baseline processor for the reduction of GPS measurements to produce fix solution base lines and holding to Trimble's guideline to high confidence limits for the ratio and rms. criteria.

Level loops run with a Wild Ni 2 level and standard rod from N.G.S. bench mark T-418 RESET to control point 17120500 and from county BM A-11-3 & A-11-4 to 17112540 & 17112304 to check the geoid modeling in the adjustment, the differences was less than 0.09 of a foot.

**CLOSURES:**

I ran numerous loop closures on the base lines to check for HI errors and isolation of bad lines for remeasure. In the most part loop closures were 1 to 2 ppm for lines with 3 or more independent sessions.

## **ADJUSTMENT:**

### **HORIZONTAL**

A minimal constrained adjustment was accomplished by holding GIS 13 fix with excellent result and many partial constrained adjustments using combinations of two to five fix points, all showing excellent internal consistency. For completion I added ( GIS 01,16,34,36,63,68, ), ( B001,02,04,05,14 ), 16123400, 17120300, 17120340 17120904 & 17122200 to the system for the fully constrained adjustment of the network. Datum for all adjustments was NAD 83 (1991) in latitude, longitude and ellipsoidal height.

### **ORTHOMETRIC**

First we used NGS GEOID 90 program to compute geoid heights at each control point to make a geoid model of the control area. By fixing orthometric heights of three reliable points in a constrained adjustment, we can cause the geoid model transformation (deflection in latitude and longitude plus a height constant) onto the same orthometric datum. Here we can analyze the record elevation at our control points by using different combinations of fixed height to find errors in data entry, movement of bench marks and bad elevations.

### **MARK DATA SHEET:**

The mark data sheet shows information about each control station in the network, such as name, number, horizontal & vertical datum, coordinates, scale factor, convergence, general information and sketch.

**NOTE: ALL VALUES ARE NAD 83 (1991) GPS**

### **DESCHUTES COUNTY COORDINATE SYSTEM:**

The County Surveyors Office and the County GIS Section agreed on a conformal mapping projection for the best fit of the 80 % population area of Deschutes

County, for a grid to ground distances, being no worse than 1 part in 50,000. This system is the best for the integration maps, deeds, etc., into the County GIS and should be of assistance to local surveyors. The County Surveyor in the process of establishing coordinates at section and 1/4 section corners on the Deschutes County Plane Coordinate System.

SYSTEM DATA:

DATUM = NAD 83(1991)

PROJECTION = TRANSVERSE MERCATOR

ZONE = DESCHUTES COUNTY

CENTRAL MERIDIAN = W 121° 17' 00.0000"

LATITUDE OF ORIGIN = N 43° 00' 00.000"

ORIGIN NORTHING = 0.00000

ORIGIN EASTING = 3,300,000.00

SCALE ALONG MERIDIAN = 1.00016000

LINEAR UNITS = INTERNATIONAL FOOT

**ACKNOWLEDGMENT:**

A project of this magnitude and complexity could not be accomplished without the help and cooperation of many people.

To the people who worked in the field on this project, Ken Grantham and Don Sweet, Deschutes Co. Surveyor's Office and Pete Manley, Deschutes Co. Public Works.

A special recognition goes to the author-programmer of Trimnet-Plus, Mike Potterfield of Trimble Navigation, for the opportunity to beta test this very extraordinary gps survey adjustment program. Also his guidance and technical advice helped set the direction of this project.

**GENERAL INFORMATION**  
**ON**  
**DATA SHEET**  
**AND**  
**CORNER NUMBERING**

GENERAL INFORMATION  
ABOUT  
CONTROL MARK DATA SHEET

BOX 1

MARK NAME: Is a name that may be stamped on the monument ( FIRST ) or a point identifier ( 17122604 ).

MARK SET BY: Best information obtainable of who may have set mark.

DATE OF MARK: Best information obtainable of date that mark was set.

LOCATION: What section, township and range that mark is located.

REFERENCE NUMBER The reference document and number that has important information about mark at the time the G.P.S. survey was performed. ( CS # = COUNTY SURVEY NUMBER ) ( OCRR # = OREGON CORNER RESTORATION RECORD NUMBER ) ( DGMC # = DESCHUTES GEODETIC MAPPING CONTROL NUMBER ) These records are on file in the County Surveyor's Office.

BOX 2

MARK SKETCH: A quick free hand sketch of mark to show general location and brief description.

BOX 3

PART 1 Self-explanatory

PART 2 All the needed information about the datum's and coordinate system to use for transformations.

PART 3 Latitude and longitude of the horizontal datum used.

Northing, easting, convergence and scale factor of the coordinate system used.

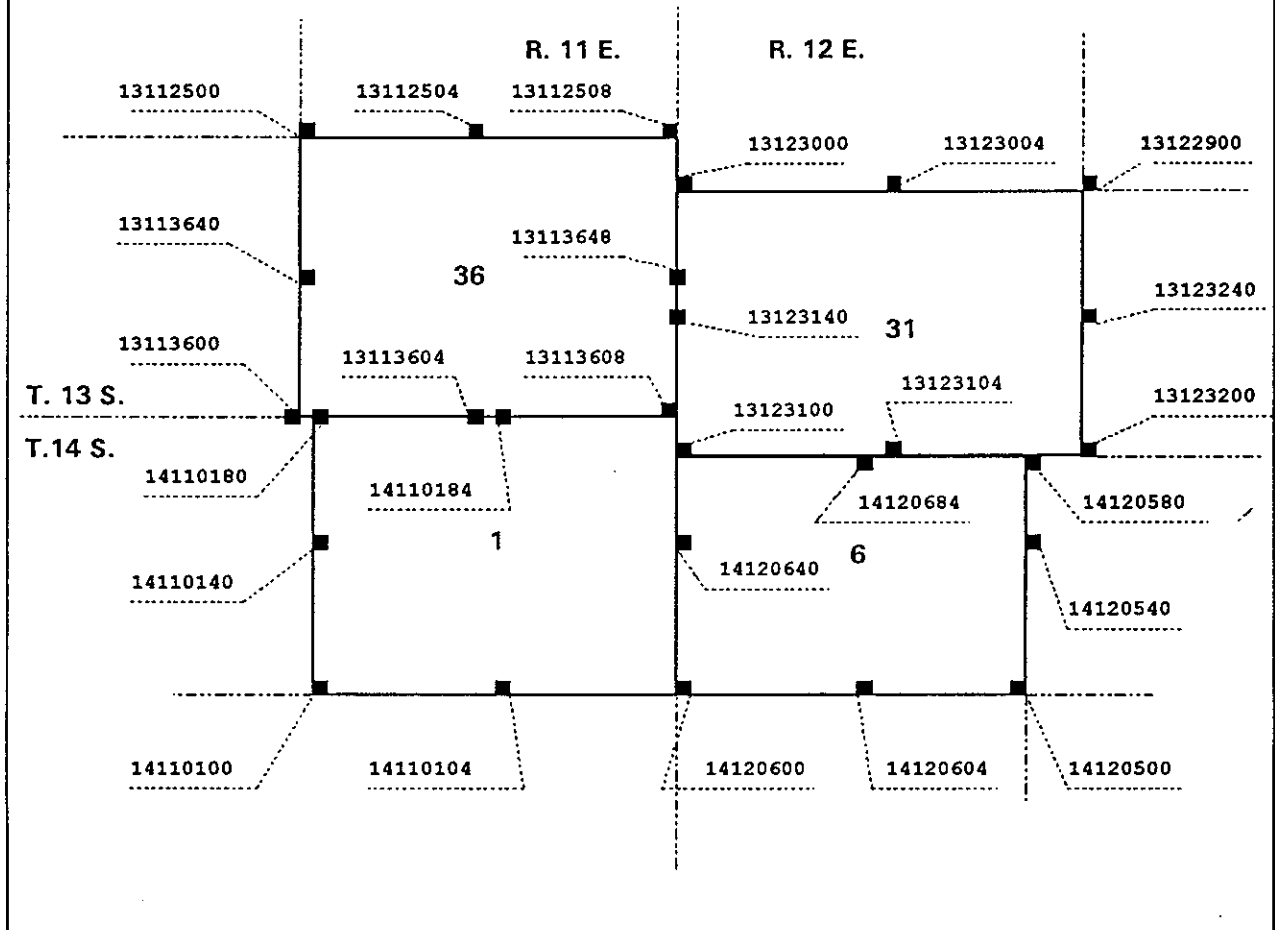
Ellipsoid height: height of mark above the reference ellipsoid

Orthometric height: height of mark on the vertical datum ( elevation ).

Geoid height: the difference between the reference ellipsoid and zero elevation of the vertical datum.

One sigma error: the estimated error of uncertainty at the 68% confidence region.( FGCC Standard )

## CORNER NUMBERING DIAGRAM



### SECTION & QUARTER CORNER NAMING CONVENTION

MARK NAME: 17 12 23 4 0 A

<u>17</u>	Township 17 South of the Willamette Base Line
<u>12</u>	Range 12 East of the Willamette Principal Meridian
<u>23</u>	Section 23
<u>4</u>	4 X 10 chains North from SW. Cor. of Section 23.
<u>0</u>	0 X 10 chains East from SW. Cor. of Section 23.
<u>A</u>	More than one important corner in proximity.

Note: The 10 chains is more a fractional part than a distance.

**DESCHUTES**

**COUNTY**

**PRIME**

**CONTROL**

**POINTS**

**HELD**

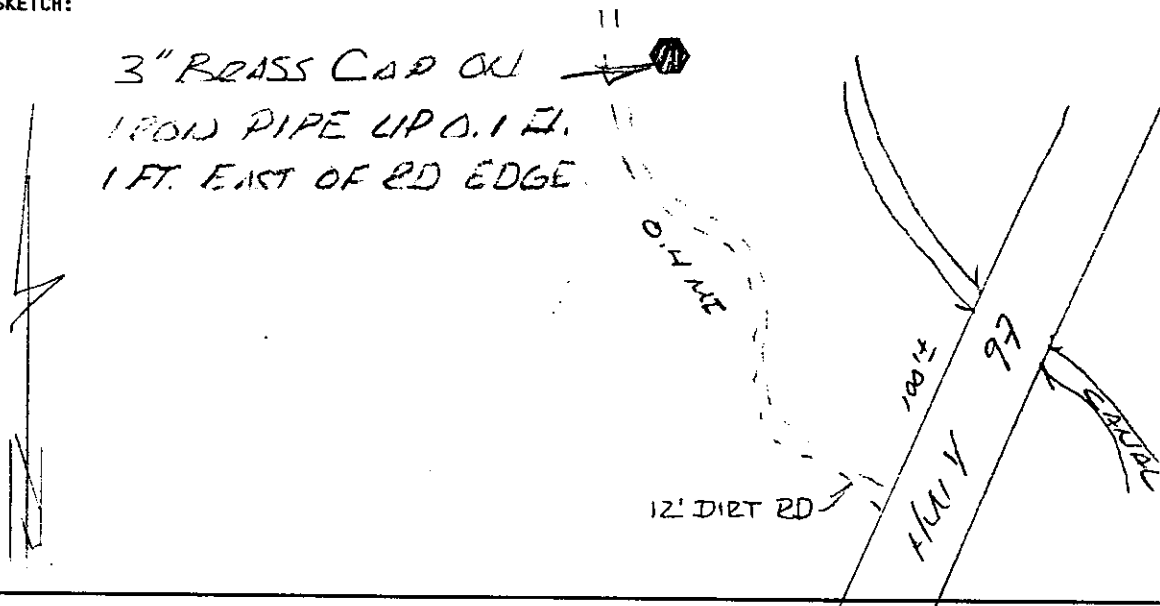
**FIX**



## CONTROL MARK DATA

NAME OF MARK: 16123400 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 34 TOWNSHIP 16 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1188

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

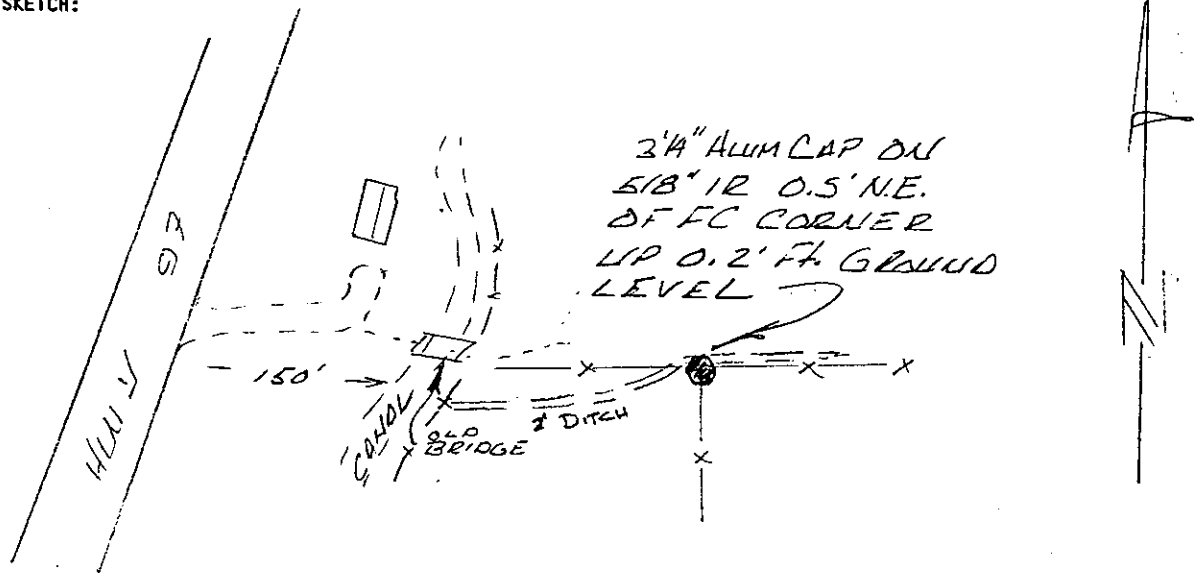
### GEODITIC AND MAPPING COORDINATES

<u>MARK:</u> <u>16123400</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	<u>44°08'17.463002"</u>	ONE SIGMA ERROR
Longitude:	<u>121°17'01.482564"</u>	
Northing:	<u>414950.321</u>	<u>0.015</u>
Easting:	<u>3299891.8658</u>	<u>0.013</u>
Convergence:	<u>-0°00'01.0324"</u>	
Scale Factor:	<u>1.000160000013</u>	
Ellipsoid Height:	<u>3280.0454</u>	<u>0.029</u>
Orthometric Height:	<u>3345.0343</u>	<u>0.040</u>
Geoid Height:	<u>-64.9889</u>	

## CONTROL MARK DATA

NAME OF MARK: 17120300 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 3 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 128

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

MARK: 17120300 HORIZONTAL ORDER: FIRST

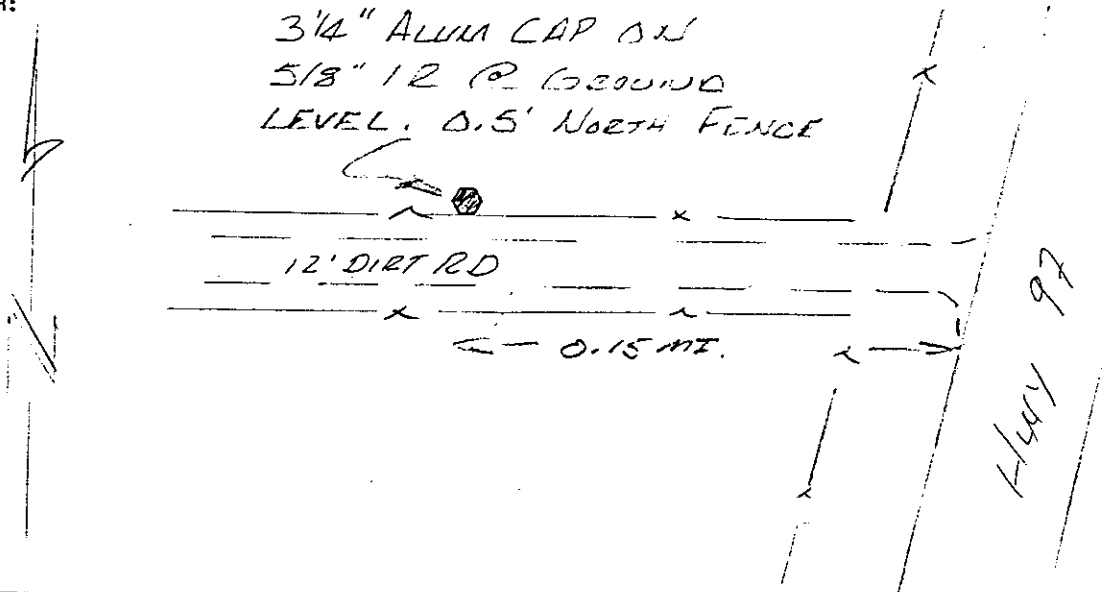
Latitude:	44°07'25.326270"	ONE
Longitude:	121°17'01.463160"	SIGMA
		ERROR
Northing:	409669.91	0.010
Easting:	3299893.255	0.009
Convergence:	-0°00'01.0187"	
Scale Factor:	1.000160000013	
Ellipsoid Height:	3311.4293	0.019
Orthometric Height:	3376.2953	0.032
Geoid Height:	-64.866	

*1009.3257*  
*1029.0969*

## CONTROL MARK DATA

NAME OF MARK: 17120340 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 3 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 120

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

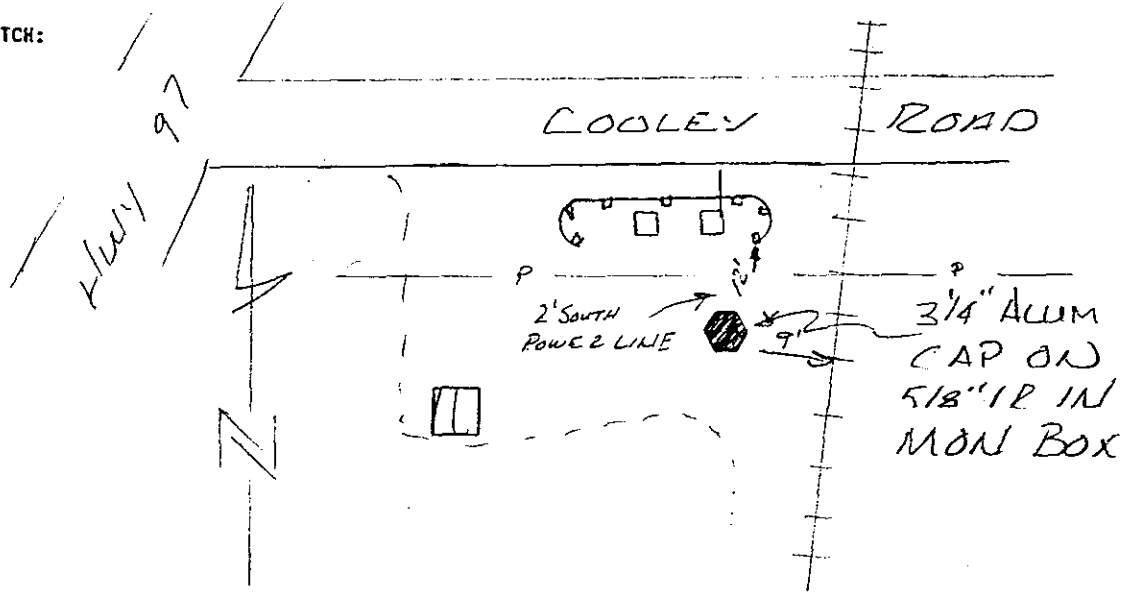
MARK: <u>17120340</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	<u>44°07'51.427460"</u>	ONE SIGMA ERROR
Longitude:	<u>121°17'01.427270"</u>	
Northing:	<u>412313.4382</u>	<u>0.016</u>
Easting:	<u>3299895.8861</u>	<u>0.014</u>
Convergence:	<u>-0°00'00.9938"</u>	
Scale Factor:	<u>1.000160000012</u>	
Ellipsoid Height:	<u>3311.0826</u>	<u>0.032</u>
Orthometric Height:	<u>3376.0182</u>	<u>0.042</u>
Geoid Height:	<u>-64.9356</u>	

1609.2200  
 1029.0124

## CONTROL MARK DATA

NAME OF MARK: 17120904 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 9 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1196

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

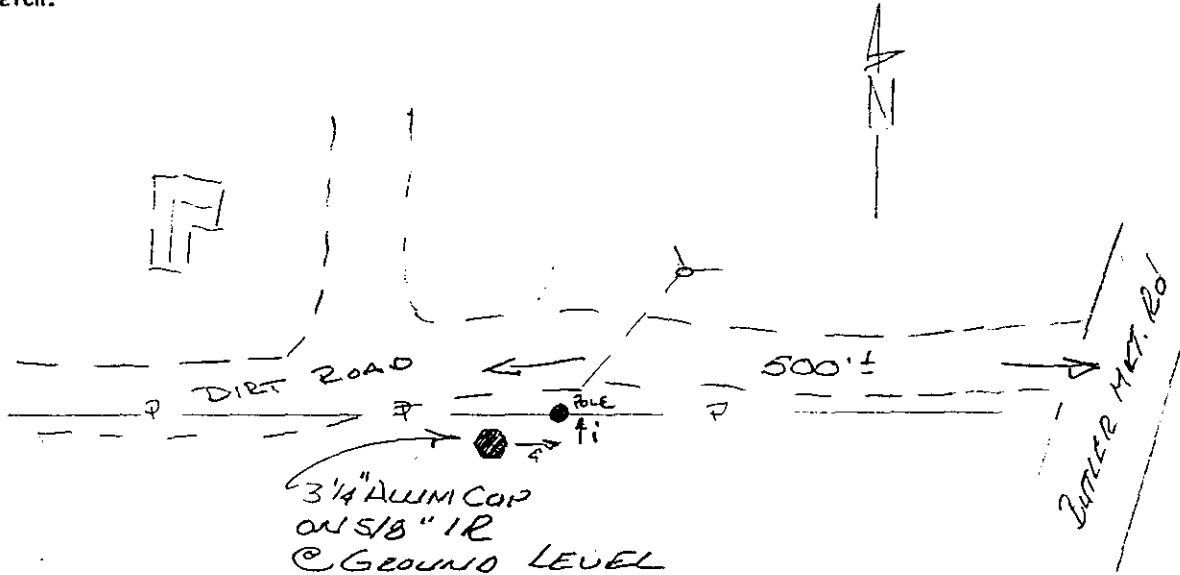
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17120904</u>	<u>HORIZONTAL ORDER: FIRST</u>	
Latitude:	44°06'33.120168"	ONE SIGMA ERROR
Longitude:	121°17'37.184347"	
Northing:	404382.6565	0.011
Easting:	3297286.5488	0.012
Convergence:	-0°00'25.8814"	
Scale Factor:	1.000160008408	
Ellipsoid Height:	3392.694	1034.0952 0.021
Orthometric Height:	3457.4622	1053.8366 0.034
Geoid Height:	-64.7682	

## CONTROL MARK DATA

NAME OF MARK: 17122200 COUNTY: DESCHUTES  
 MARK SET BY: LS 2033 MICHAEL TOMPKINS STATE: OREGON  
 DATE OF MARK: 12/13/88 COUNTRY: U.S.A.  
 LOCATION: SECTION 22 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 946

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

MARK: 17122200 HORIZONTAL ORDER: FIRST

Latitude:	44°04'48.548620"	ONE
Longitude:	121°17'01.275820"	SIGMA
		ERROR
Northing:	393791.5421	0.011
Easting:	3299906.8541	0.010
Convergence:	-0°00'00.8875"	
Scale Factor:	1.000160000010	
Ellipsoid Height:	3463.2985	1055.6155
Orthometric Height:	3527.8155	1075.2803
Geoid Height:	-64.5171	0.020
		0.033

## CONTROL MARK DATA

NAME OF MARK: B001 COUNTY: DESCHUTES  
 MARK SET BY: OREGON HIGHWAY DIVISION STATE: OREGON  
 DATE OF MARK: 1991 COUNTRY: U.S.A.  
 LOCATION: SECTION 16 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

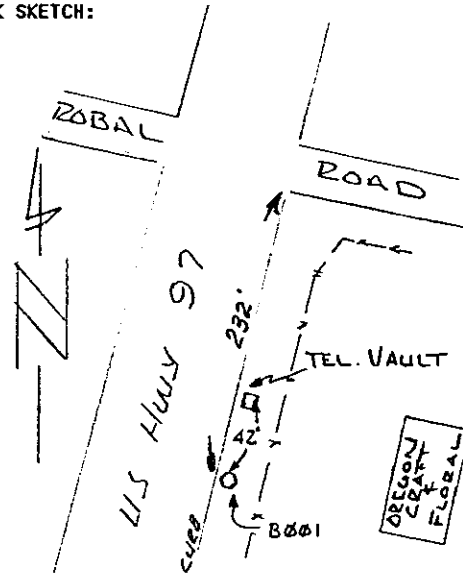
**MARK DESCRIPTION:**

TO REACH THE MARK FROM THE INTERSECTION OF HWY. 97 (3 RD STREET) & HWY. 20 (GREENWOOD AVE.) PROCEED NORTH ON HWY. 97 FOR 2.95 MILES TO THE MARK ON THE RIGHT.

THE MARK IS A STANDARD OREGON STATE HWY. REFERENCE BRASS CAP IN A 6 IN. STEEL PIPE 1.0 FT. BELOW GROUND LEVEL.

3 FEET EAST OF EAST CURB.  
 43 FEET SOUTH OF A TELEPHONE VAULT.  
 232 FEET SOUTH OF ROBAL ROAD.

**MARK SKETCH:**



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1991-1992  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

**GEODETTIC AND MAPPING COORDINATES**

			ONE SIGMA ERROR
B001	Latitude	N 44°06'07.770647"	
	Longitude	W 121°17'57.788789"	
	Scale Factor	1.000160020312	
	Convergence	-0°00'40.2175"	
	Northing(y)	401815.5080	0.010729F
	Easting (x)	3295782.4815	0.009904F
	Ellipsoid Height	3440.0961 <i>1048.5434</i>	0.012874F
	Orthometric Height	3504.8094 <i>1068.2681</i>	0.017670F
	Geoid Height	-64.7133	0.012104F

## CONTROL MARK DATA

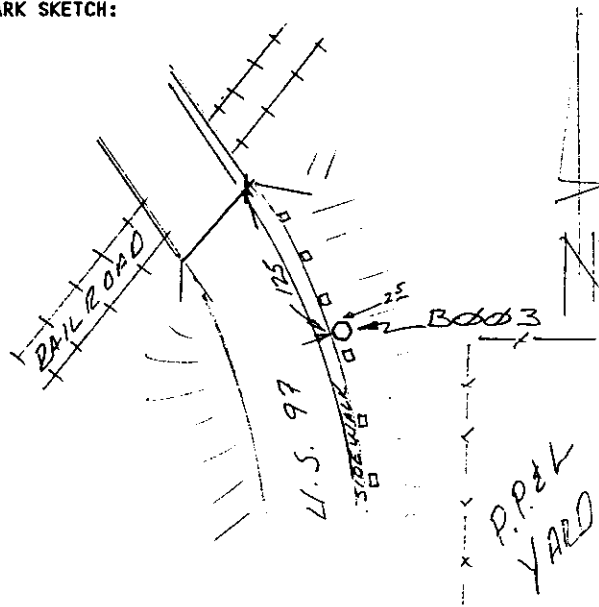
NAME OF MARK: B003 COUNTY: DESCHUTES  
 MARK SET BY: OREGON HIGHWAY DIVISION STATE: OREGON  
 DATE OF MARK: 1991 COUNTRY: U.S.A.  
 LOCATION: SECTION 28 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

**MARK DESCRIPTION:**  
 TO REACH THE MARK FROM THE INTERSECTION OF HWY. 97 (3 RD STREET) & HWY. 20 (GREENWOOD AVE.) PROCEED NORTH ON HWY. 97 FOR 0.9 MI. TO THE MARK ON THE RIGHT

THE MARK IS A STANDARD OREGON STATE HIGHWAY REFERENCE BRASS CAP MARKED "GPS B003" 1 FT. BELOW GROUND LEVEL IN A 6" STEEL PIPE IN CONCRETE.

2.5 FT. EAST OF EAST SIDE OF SIDEWALK.  
 125.5 FT. SOUTHERLY FROM BRIDGE DECK.

**MARK SKETCH:**



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1991-1992  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= <u>NAD (83-91)</u> VERTICAL= <u>NGVD 29</u>	CENTRAL MERIDIAN: <u>W 121°17'00.000000"</u> LATITUDE OF ORIGIN: <u>N 43°00'00.000000"</u>
COORDINATE SYSTEM: <u>TRANSVERSE MERCATOR</u>	ORIGIN NORTHING: <u>0.0000 F</u>
ZONE: <u>DESCHUTES COUNTY</u>	ORIGIN EASTING: <u>3,300,000.0000 F</u>
LINEAR UNITS: <u>INTERNATIONAL FOOT</u>	SCALE ALONG MERIDIAN: <u>1.000160000000</u>

**GEODETTIC AND MAPPING COORDINATES**

			ONE SIGMA ERROR
B003	Latitude	N 44°04'25.430925"	
	Longitude	W 121°18'07.169984"	
	Scale Factor	1.000160027469	
	Convergence	-0°00'46.7223"	
	Northing (y)	391450.7581	0.010431F
	Easting (x)	3295095.4784	0.010339F
	Ellipsoid Height	3555.8490	0.011250F
	Orthometric Height	3620.3488	0.014877F
	Geoid Height	-64.4998	0.009736F

*108250.50*  
*1103.4845*

## CONTROL MARK DATA

NAME OF MARK: B005 COUNTY: DESCHUTES  
 MARK SET BY: OREGON HIGHWAY DIVISION STATE: OREGON  
 DATE OF MARK: 1991 COUNTRY: U.S.A.  
 LOCATION: SECTION 32 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

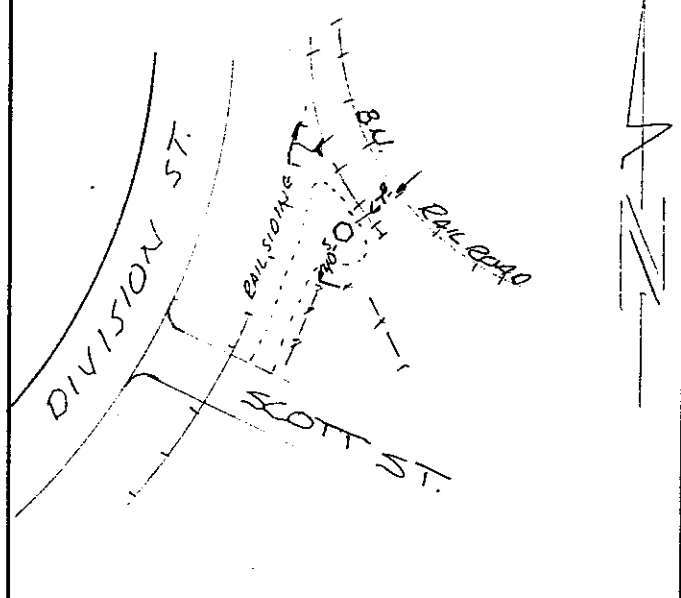
**MARK DESCRIPTION:**

TO REACH THE MARK FROM THE INTERSECTION  
 OF HWY. 97 (3 RD STREET) & HWY. 20  
 (GREENWOOD AVE.) PROCEED SOUTH ON HWY.  
 97 FOR 1.8 MI. TO WILSON AVE., TURN  
 RIGHT & PROCEED WEST FOR 0.16 MI. TO  
 DIVISION ST., TURN RIGHT & PROCEED NORTH  
 FOR 0.68 MI TO SCOTT ST., TURN RIGHT &  
 PROCEED EAST FOR 100 FT. TO CANAL ST.,  
 TURN LEFT & PROCEED NORTH FOR 300 FT. TO  
 THE MARK ON THE RIGHT

THE MARK IS A STANDARD OREGON STATE  
 HIGHWAY REFERENCE BRASS CAP MARKED "GPS  
 B005" SET 1 FT. BELOW GROUND LEVEL IN A  
 6" STEEL PIPE IN CONCRETE.

68 FT. WEST OF MAINLINE RAILROAD TRACK.  
 40.5 FT. NORTH OF BOARD FENCE CORNER.

**MARK SKETCH:**



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1991-1992  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

**GEODETIC AND MAPPING COORDINATES**

			ONE SIGMA ERROR
B005	Latitude	N 44°03'14.105975"	
	Longitude	W 121°18'23.842497"	
	Scale Factor	1.000160042826	
	Convergence	-0°00'58.2986"	
	Northing(y)	384227.3586	0.011252F
	Easting (x)	3293876.0667	0.010921F
	Ellipsoid Height	3573.9459	0.012233F
	Orthometric Height	3638.2754	0.015532F
	Geoid Height	-64.3295	0.009570F

*1089.3409  
1108.9486*



## CONTROL MARK DATA

NAME OF MARK: B014 COUNTY: DESCHUTES  
 MARK SET BY: OREGON HIGHWAY DIVISION STATE: OREGON  
 DATE OF MARK: 1991 COUNTRY: U.S.A.  
 LOCATION: SECTION 21 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

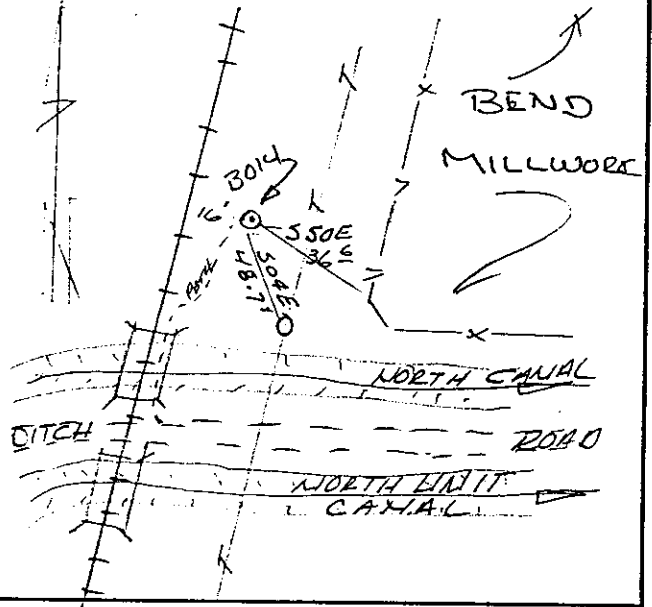
**MARK DESCRIPTION:**

TO REACH THE MARK FROM THE INTERSECTION OF HWY. 97 (3 RD STREET) & HWY. 20 (GREENWOOD AVE.) PROCEED NORTH ON HWY. 97 FOR 0.5 MI. TO REVERE ST. AND TURN LEFT & PROCEED 0.18 MI. TO DIVISION ST. & PROCEED NORTH FOR 0.6 MI. & TURN RIGHT ON CANAL RD. & PROCEED EASTERLY FOR 0.35 MI TO THE MARK ON THE LEFT.

THE MARK IS A 1 1/2 " ALUM. CAP ON A 1/2" I.R. & MARKED "WB 9 1988" FLUSH WITH GROUND LEVEL.

16 FT. EAST OF RAILROAD.  
 36.6 FT. FROM FENCE CORNER.  
 48.7 FT. FROM TELEGRAPH POLE.

**MARK SKETCH:**



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1991-1992  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

**GEODETIC AND MAPPING COORDINATES**

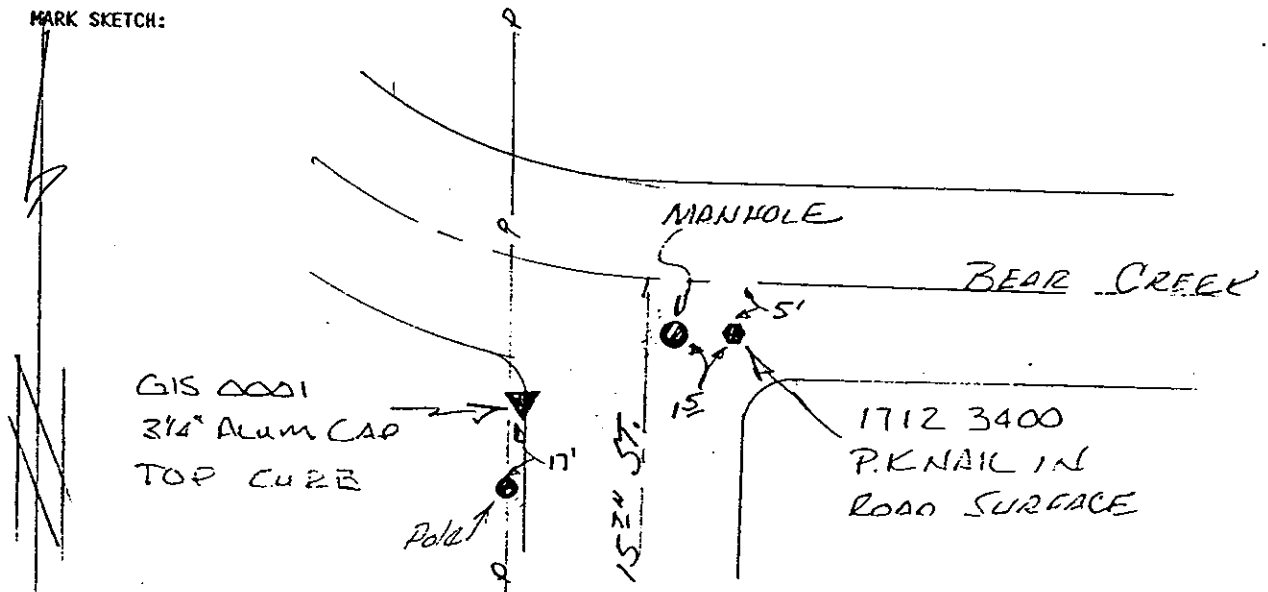
			ONE SIGMA ERROR
B014	Latitude	N 44°04'49.058014"	
	Longitude	W 121°18'01.396639"	
	Scale Factor	1.000160022944	
	Convergence	-0°00'42.7115"	
	Northing (y)	393843.5969	0.015181F
	Easting (x)	3295517.5237	0.014853F
	Ellipsoid Height	3497.6613	0.016416F
	Orthometric Height	3562.2071	0.020314F
	Geoid Height	-64.5458	0.011965F

*1066.0893*  
*1085.7629*

## CONTROL MARK DATA

NAME OF MARK: GIS\_01 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1988 COUNTRY: U.S.A.  
 LOCATION: SECTION 4 TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 7

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

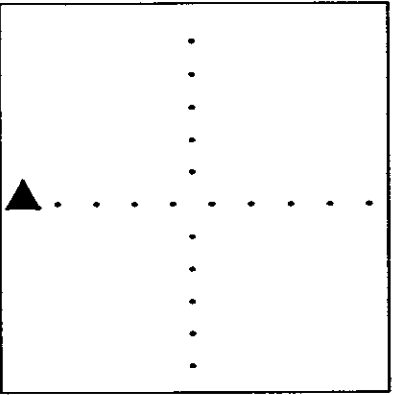
DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29. LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

<u>MARK: GIS 01</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'04.549162"	ONE
Longitude:	121°17'01.952450"	SIGMA
Northing:	383258.5924	ERROR
Easting:	3299857.3849	0.014
Convergence:	-0°00'01.3575"	0.013
Scale Factor:	1.000160000023	
Ellipsoid Height:	3594.124	0.027
Orthometric Height:	3658.4084	0.037
Geoid Height:	-64.2844	

1095.490  
 115.8851

**DESCHUTES COUNTY PRIME CONTROL NETWORK  
CONTROL STATION DESCRIPTION**

NAME: GIS 0013 GIS # 0013 ORDER C-1st. ( GPS )	HORIZONTAL DATUM: NAD 83 (1991) VERT. DATUM: NGVD 29 & NAVD 88
<p align="center">STATION LOCATION</p>  <p align="center">T. 18 S.- R. 12 E., SEC. 5</p>	----- LATITUDE: 44° 02' 39.71324" N LONGITUDE: 121° 19' 25.05079" W ----- EC CARTESIAN ----- X: -2387685.327 METERS Y: -3923407.174 METERS Z: +4412398.193 METERS ----- HEIGHT ----- ELLIPSOIDAL: 1095.966 METERS NGVD 29 : 1115.545 METERS NAVD 88 : 1116.715 METERS ----- SPC -- OREGON SOUTH ----- NORTH: 264457.798±.002 METERS EAST: 1433989.701±.002 METERS SCALE FACTOR: 1.000011578 CONVERGENCE: - 0° 33' 48.53 "

The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Percision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by GPS.

**SURFACE MARKER:**  
 MARK IS STAMPED - GIS 0013  
 AGENCY INSCRIPTION - DESCHUTES COUNTY SURVEYORS OFFICE  
 THE STATION IS LOCATED ABOUT 1 MILE SOUTHWEST OF BEND.

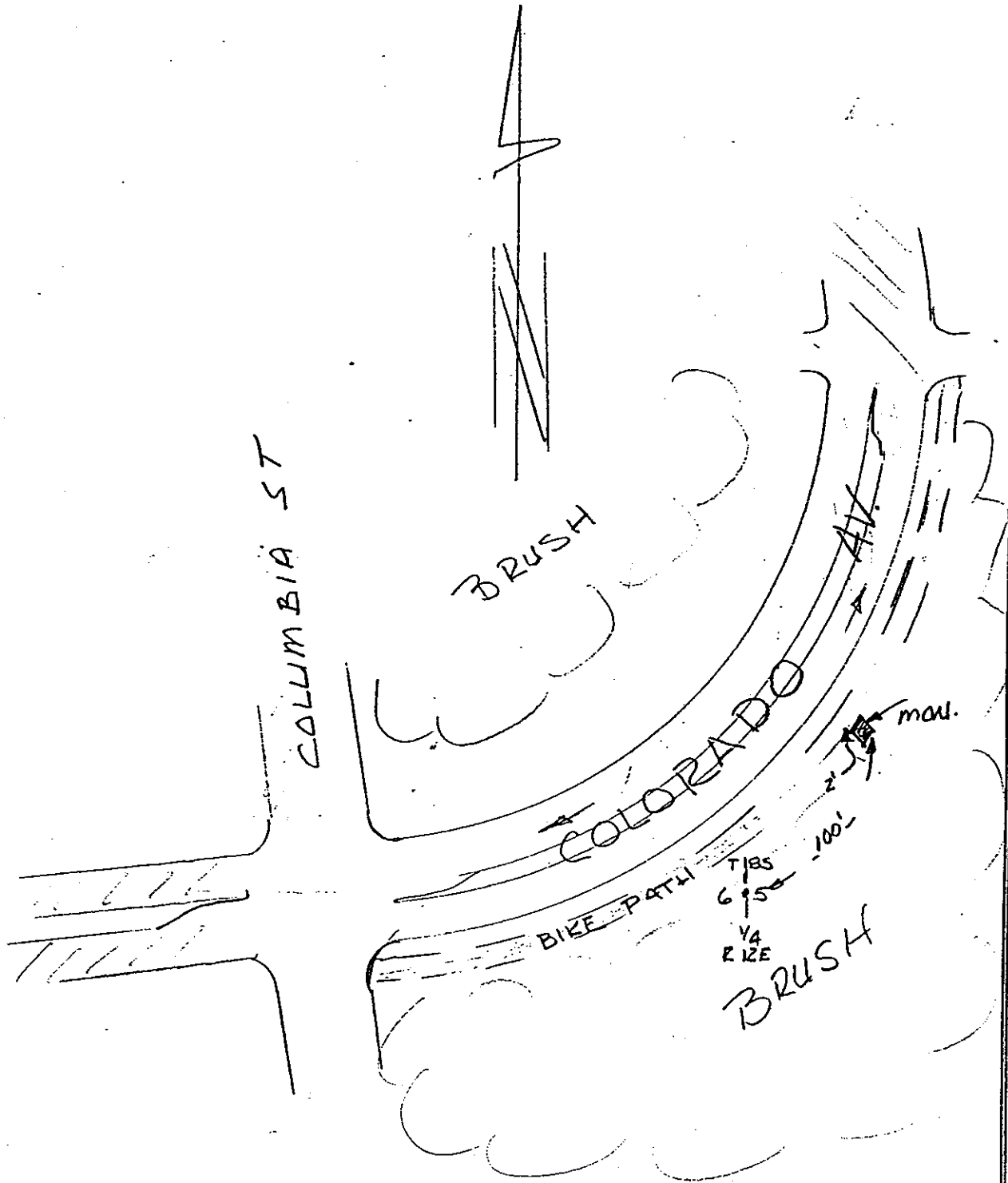
-----  
 TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED SOUTH ON HWY 97 0.3 MI., TURN RIGHT ON FRANKLIN AVE & PROCEED 0.6 MI., TURN LEFT ON BOND ST. & PROCEED SOUTH FOR 0.4 MI., TURN RIGHT ON COLORADO AVE. AND PROCEED WESTERLY FOR 0.75 MI. TO THE STATION ON LEFT.

-----  
 THE STATION MARK IS A 3 1/2 IN. STANDARD DESCHUTES COUNTY ALUMINUM DISK IN A MASS OF CONCRETE 0.3 FT ABOVE GROUND LEVEL, 2 FT. SOUTH OF BIKE PATH, N 60 E 110 FT. FROM A 1 FT. PINE TREE, ABOUT 450 FEET EASTERLY FO THE INTERSECTION TO COLORADO AVE. AND COLUMBIA STREET.

Location and reference sketch:

Name: GIS 0013

GIS #: 13



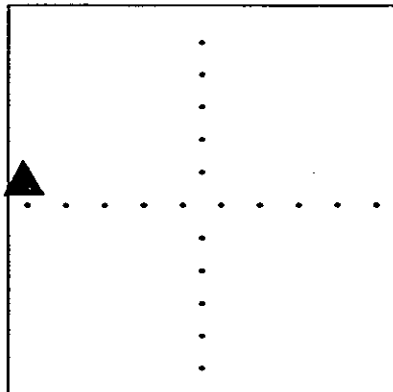
DESCHUTES COUNTY SURVEYOR'S OFFICE  
61150 S.E. 27th. St.  
Bend, Oregon. 97702  
(503) 383-4395

**DESCHUTES COUNTY PRIME CONTROL NETWORK  
CONTROL STATION DESCRIPTION**

NAME: GIS 0016  
GIS # 0016  
ORDER C-1st. ( GPS )

HORIZONTAL DATUM: NAD 83 (1991)  
VERT. DATUM: NGVD 29 & NAVD 88

STATION LOCATION



T. 16 S.- R. 11 E., SEC.27

LATITUDE: 44° 09' 39.45957" N  
LONGITUDE: 121° 24' 13.39777" W

----- EC CARTESIAN -----  
X: -2388441.433 METERS  
Y: -3912323.745 METERS  
Z: +4421652.053 METERS

----- HEIGHT -----  
ELLIPSOIDAL: 1022.753 METERS  
NGVD 29 : 1042.624 METERS  
NAVD 88 : 1043.792 METERS  
----- SPC -- OREGON SOUTH -----  
NORTH: 277479.106±.003 METERS  
EAST: 1427710.335±.003 METERS

SCALE FACTOR: 1.000044900  
CONVERGENCE: - 0° 37' 05.80 "

The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Percision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by GPS.

SURFACE MARKER:  
MARK IS STAMPED - GIS 0016  
AGENCY INSCRIPTION - DESCHUTES COUNTY SURVEYORS OFFICE  
THE STATION IS LOCATED ABOUT 8.4 MILE NORTHWEST OF BEND.

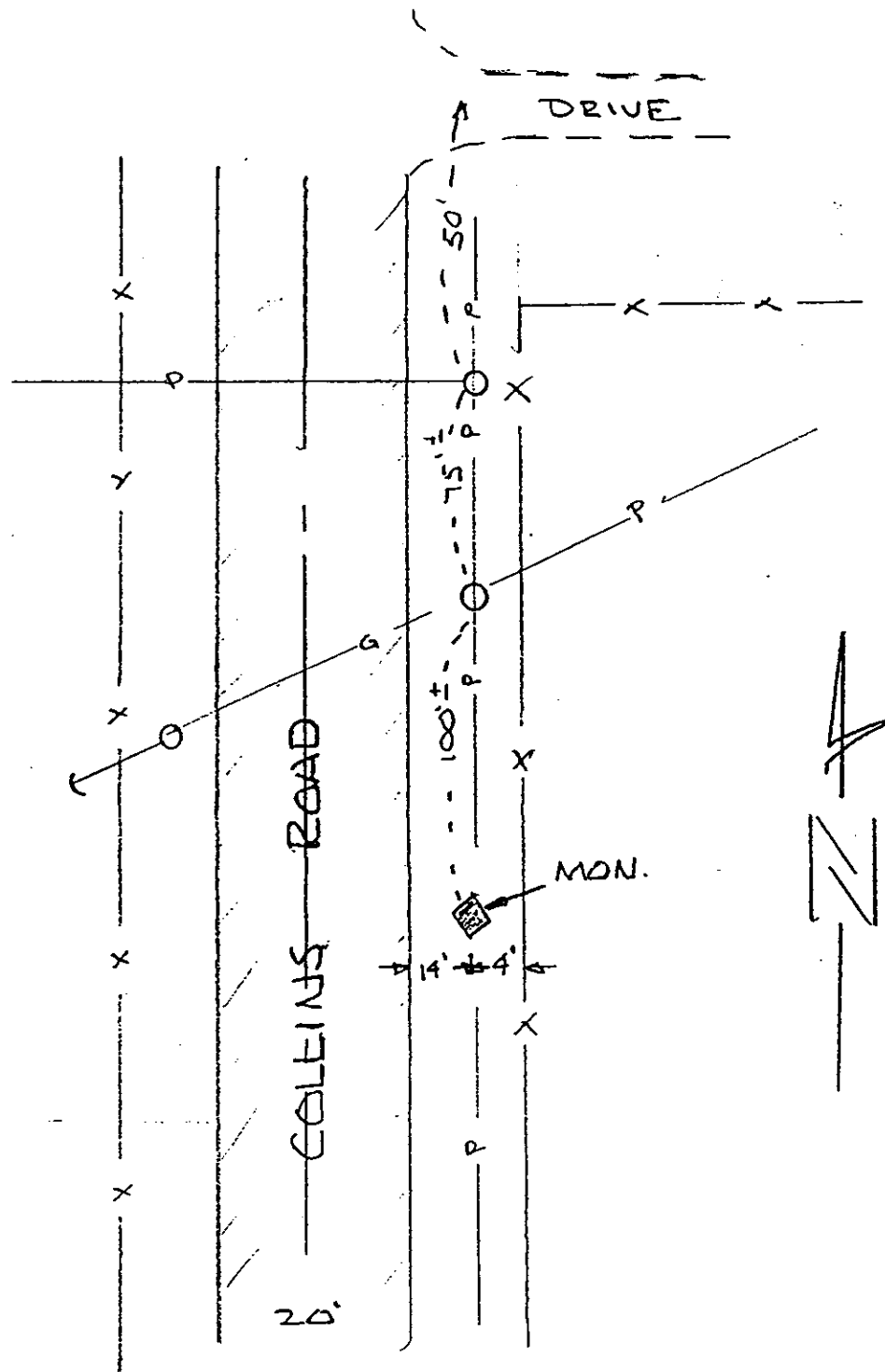
TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED NORTH ON HWY 97 2.5 MI., TURN LEFT (TAKE HWY 20 OVERPASS) PROCEED 2.5 MI. ON HWY 20, TURN LEFT ON COUCH MARKET RD. PROCEED WEST 1.9 MI., TURN LEFT ON COLLINS RD. PROCEED SOUTH 0.44 MI. TO THE STATION ON THE LEFT

THE STATION MARK IS A 3 1/2 IN. STANDARD DESCHUTES COUNTY ALUMINUM DISK GROUTED IN A LARGE BOULDER. 17 FEET EAST OF THE EAST EDGE OF COLLINS ROAD. 4 FEET WEST OF A WIRE FENCE.

Location and reference sketch:

Name: GIS 0016

GIS #: 16

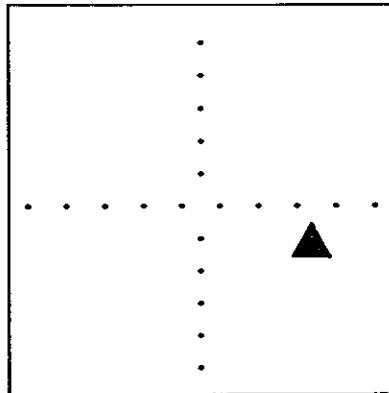


**DESCHUTES COUNTY PRIME CONTROL NETWORK  
CONTROL STATION DESCRIPTION**

NAME: C-30 1921  
GIS # 0034  
ORDER C-1st. ( GPS )

HORIZONTAL DATUM: NAD 83 (1991)  
VERT. DATUM: NGVD 29 & NAVD 88

**STATION LOCATION**



LATITUDE: 44° 06' 53.97704" N  
LONGITUDE: 121° 17' 27.31060" W

----- EC CARTESIAN -----  
X: -2382584.114 METERS  
Y: -3920061.842 METERS  
Z: +4417989.709 METERS

----- HEIGHT -----  
ELLIPSOIDAL: 1028.261 METERS  
NGVD 29 : 1048.013 METERS  
NAVD 88 : 1049.170 METERS  
----- SPC --- OREGON SOUTH -----  
NORTH: 272280.186±.003 METERS  
EAST: 1436684.962±.003 METERS

T. 17 S.- R. 12 E., SEC.09

SCALE FACTOR: 1.000031262  
CONVERGENCE: - 0° 32' 27.98 "

The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Percision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by differential leveling.

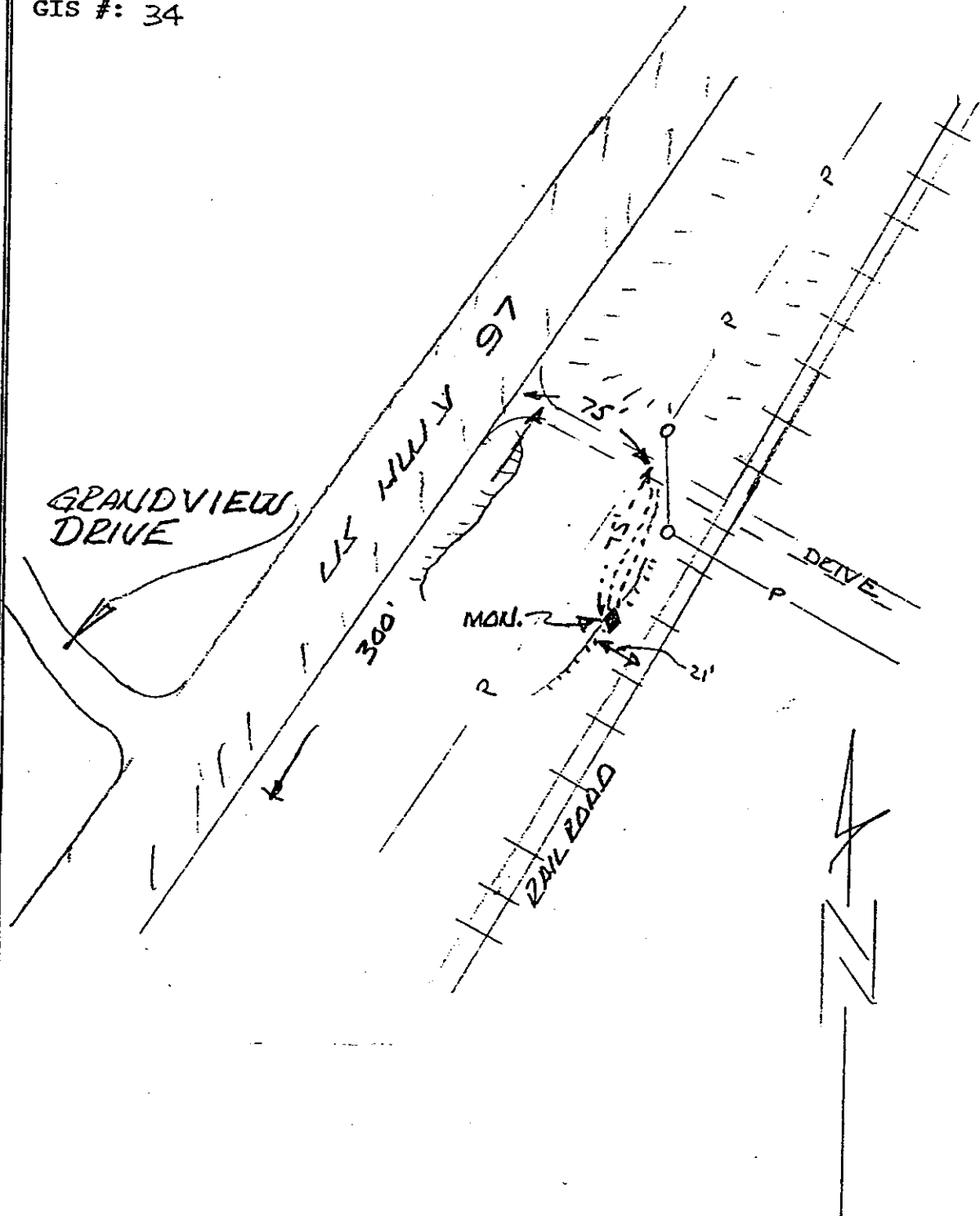
**SURFACE MARKER:**

MARK IS STAMPED - C 30 1921 ELEV. 3438.349  
AGENCY INSCRIPTION - US COST & GEODITIC SURVEY  
THE STATION IS LOCATED ABOUT 4.0 MILES NORTH OF BEND.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED NORTH ON HWY 97 FOR 4.00 MI., TURN RIGHT ON A DIRT ACCESS RD. LEADS TO RAILROAD CROSSING, PROCEED EAST FOR 144 FEET, WALK SOUTH 70 FEET TO THE STATION.

THE STATION MARK IS A 3 1/2 IN. STANDARD US GEODETIC SURVEY BRASS DISK IN GROUT IN A ROCK LEDGE, 2 FEET ABOVE RAILROAD GRADE. 1 FOOT NORTH OF A WITNESS POST. 25 FEET WEST OF THE CENTER OF RAILROAD TRACKS.

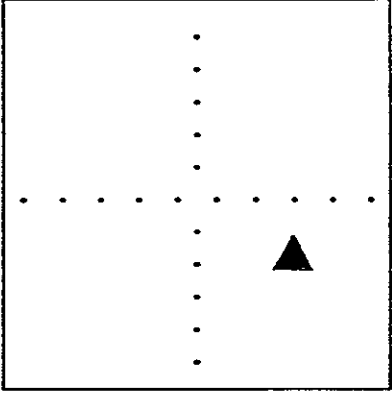
Location and reference sketch:  
Name: C-30 1921  
GIS #: 34



DESCHUTES COUNTY SURVEYOR'S OFFICE  
61150 S.E. 27th. St.  
Bend, Oregon. 97702  
(503) 383-4395



**DESCHUTES COUNTY PRIME CONTROL NETWORK  
CONTROL STATION DESCRIPTION**

<p>NAME: GIS 0036 GIS # 0036 ORDER C-1st. ( GPS )</p>	<p>HORIZONTAL DATUM: NAD 83 (1991) VERT. DATUM: NGVD 29 &amp; NAVD 88</p>
<p align="center">STATION LOCATION</p>  <p align="center">T. 18 S.- R. 11 E., SEC.12</p>	<p>LATITUDE: 44° 01' 12.53426" N LONGITUDE: 121° 22' 09.96186" W</p> <p>----- EC CARTESIAN ----- X: -2391820.319 METERS Y: -3923135.440 METERS Z: +4410510.159 METERS</p> <p>----- HEIGHT ----- ELLIPSOIDAL: 1163.330 METERS NGVD 29 : 1182.830 METERS NAVD 88 : 1184.017 METERS ---- SPC -- OREGON SOUTH ---- NORTH: 261804.279±.003 METERS EAST: 1430290.515±.003 METERS</p> <p>SCALE FACTOR: 1.000005183 CONVERGENCE: - 0° 35' 41.36 "</p>

The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Percision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by differential leveling.

**SURFACE MARKER:**  
MARK IS STAMPED - GIS 0036  
AGENCY INSCRIPTION - DESCHUTES COUNTY SURVEYORS OFFICE  
THE STATION IS LOCATED ABOUT 3 MILE SOUTHWEST OF BEND.

---

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED SOUTH ON HWY 97 0.3 MI., TURN RIGHT ON FRANKLIN AVE & PROCEED 0.6 MI., LEFT ON BOND ST. & PROCEED SOUTH 0.4 MI., TURN RIGHT ON COLORADO AVE AND PROCEED 1.10 MI. TO THE INTERSECTION WITH CENTURY DRIVE HWY., TURN LEFT AND PROCEED SOUTHERLY 2.5 MI. TO THE STATION ON THE LEFT.

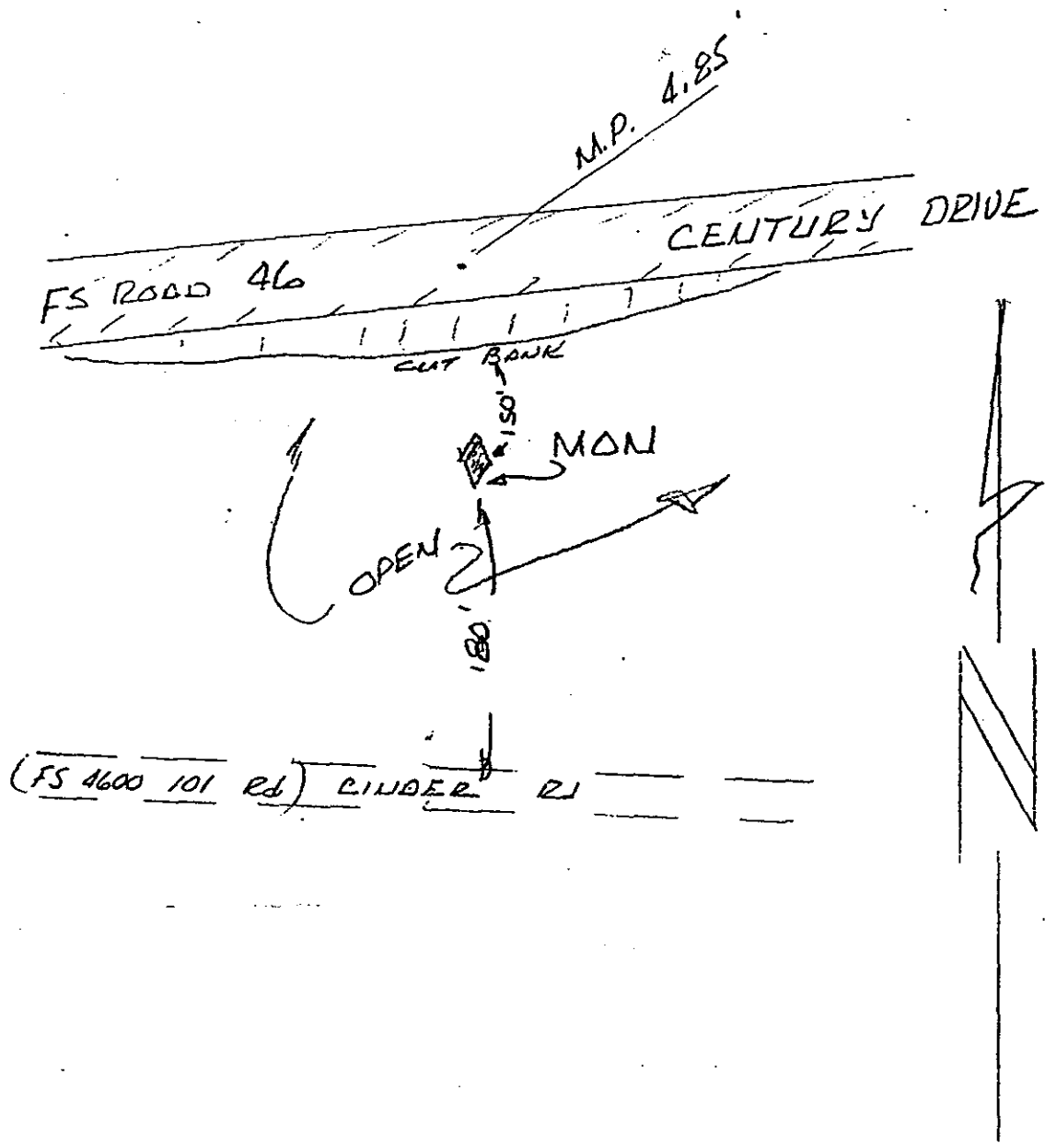
---

THE STATION MARK IS A 2 IN. BRASS DISK CROUTRED IN A LARGE BOULDER 0.4 FEET ABOVE GROUND LEVEL.  
155 FEET SOUTHEASTERLY FROM ROAD CUT LINE  
2 FEET NORTHER FROM A WITNESS POST.

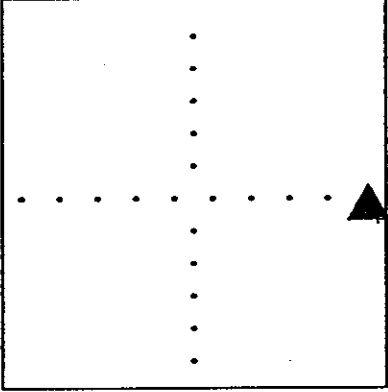
Location and reference sketch:

Name: . GIS 36

GIS #: 36



**DESCHUTES COUNTY PRIME CONTROL NETWORK  
CONTROL STATION DESCRIPTION**

<p>NAME: FIRST 1945 GIS # 0063 ORDER C-1st. ( GPS )</p>	<p>HORIZONTAL DATUM: NAD 83 (1991) VERT. DATUM: NGVD 29 &amp; NAVD 88</p>
<p align="center">STATION LOCATION</p>  <p align="center">T. 18 S.- R. 10 E., SEC. 1</p>	<p>LATITUDE: 44° 02' 28.04986" N LONGITUDE: 121° 27' 56.09387" W</p> <p>----- EC CARTESIAN ----- X: -2397639.383 METERS Y: -3917872.764 METERS Z: +4412343.322 METERS</p> <p>----- HEIGHT ----- ELLIPSOIDAL: 1389.332 METERS NGVD 29 : 1408.692 METERS NAVD 88 : 1409.908 METERS ---- SPC -- OREGON SOUTH ---- NORTH: 264219.363±.005 METERS EAST: 1422608.773±.004 METERS</p> <p>SCALE FACTOR: 1.000010712 CONVERGENCE: - 0° 39' 38.16 "</p>

The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Percision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by GPS.

**SURFACE MARKER:**  
MARK IS STAMPED - FIRST 1945  
AGENCY INSCRIPTION - U. S. COAST AND GEOIDETIC SURVEY  
THE STATION IS LOCATED ABOUT 8 MILES WEST OF BEND.

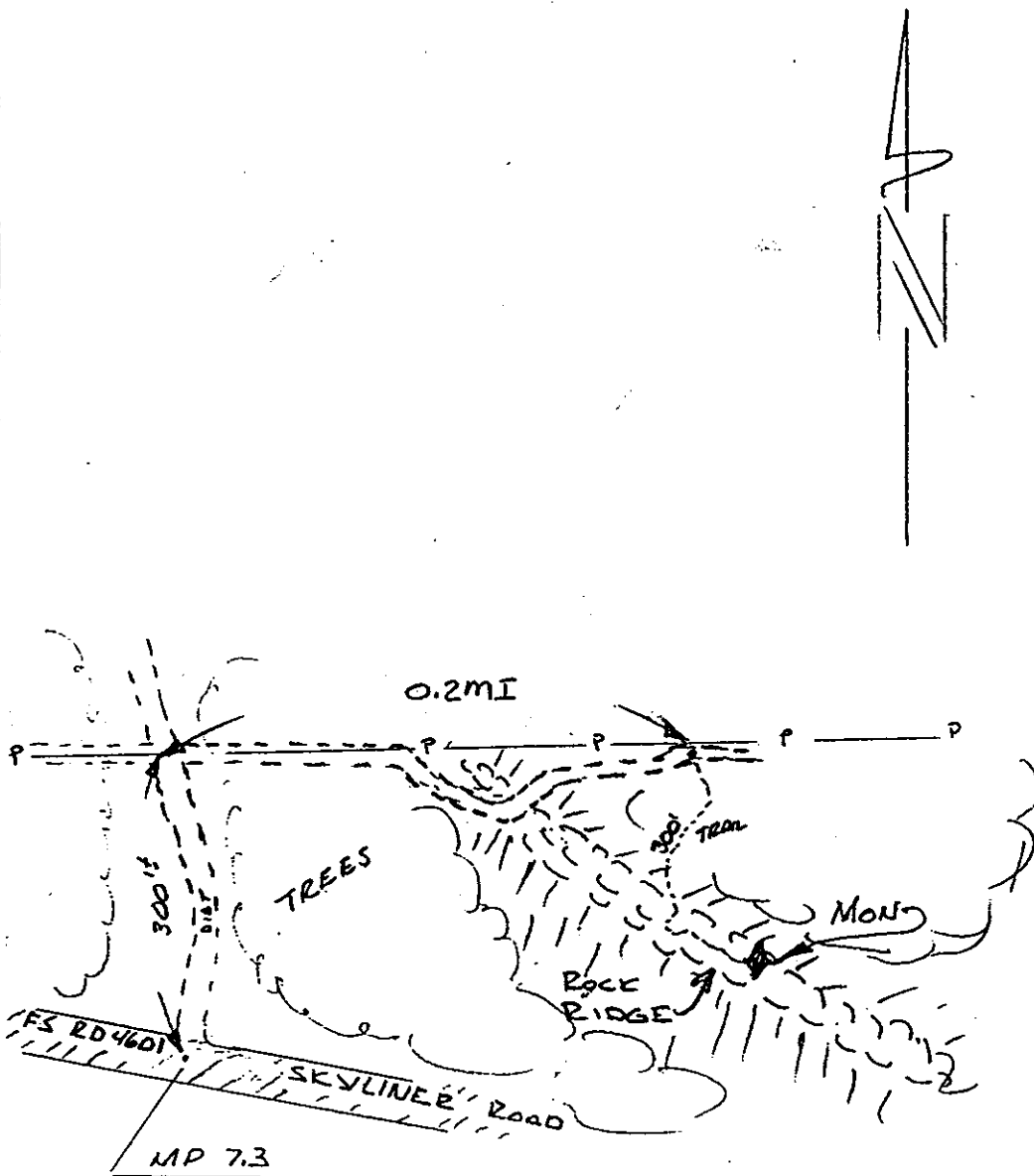
-----  
TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED WEST ON 3RD ST. 0.5 MI. TO INTERSECTION WITH WALL ST. (GREENWOOD CHANGES TO NEWPORT AV.), PROCEED WESTERLY ON NEWPORT AV. 1.00 MI., TURN LEFT ON W. 14TH ST & PROCEED SO. 0.40 MI., TURN RIGHT ON GALVESTON AV. & PROCEED WESTERLY (0.4 MI. CHANGES TO SKLINER RD. (FS RD 4601)) 7.4 MI. TURN RIGHT ON DIRT RD., PROCEED NORTHERLY 0.05 MI. TURN RIGHT ON POWER & WATER LINE RD, PROCEED EASTERLY 0.2 MI PARK ON DOWN SLOPE NEAR POWER LINE CROSSES RD, PACK SOUTHEASTERLY 300 FT TO HIGH ROCK RIDGE, MARK IS ON HIGHEST PART.

-----  
THE STATION MARK IS A 3 1/2 IN. USC&GS BRASS CAP GROUTED INTO A MASS OF ROCK. ROCK RIDGE RUNS S.70 E.  
360 DEG. OF 15 DEG MASK FOR GPS

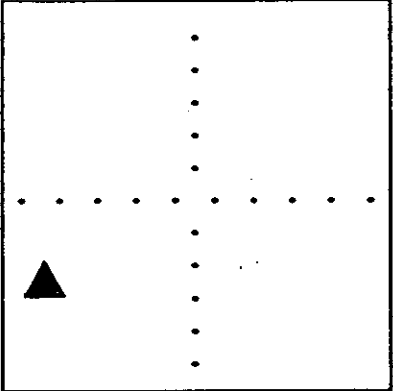
Location and reference sketch:

Name: FIRST 1945

GIS #: 63



**DESCHUTES COUNTY PRIME CONTROL NETWORK  
CONTROL STATION DESCRIPTION**

NAME: GIS 0068 GIS # 0068 ORDER C-1st. ( GPS )	HORIZONTAL DATUM: NAD 83 (1991) VERT. DATUM: NGVD 29 & NAVD 88
<p align="center">STATION LOCATION</p>  <p align="center">T. 17 S.- R. 11 E., SEC.12</p>	LATITUDE: 44° 06' 46.17468" N LONGITUDE: 121° 21' 44.63437" W  ----- EC CARTESIAN ----- X: -2387568.959 METERS Y: -3917244.359 METERS Z: +4417833.558 METERS  ----- HEIGHT ----- ELLIPSOIDAL: 1052.362 METERS NGVD 29 : 1072.121 METERS NAVD 88 : 1073.292 METERS ----- SPC -- OREGON SOUTH ----- NORTH: 272095.852±.004 METERS EAST: 1430960.622±.004 METERS  SCALE FACTOR: 1.000030635 CONVERGENCE: - 0° 35' 24.03 "

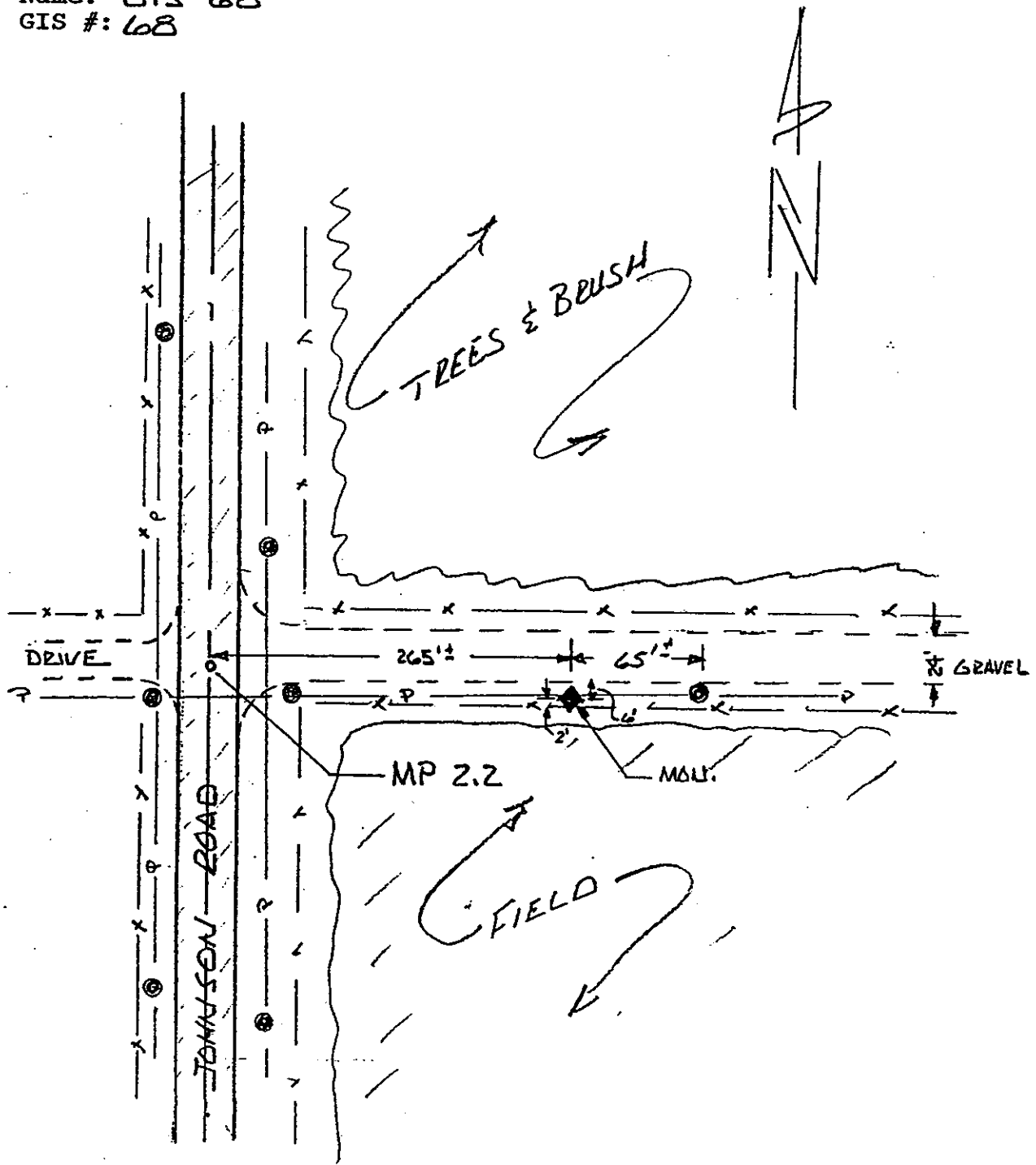
The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Percision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by GPS.

**SURFACE MARKER:**  
 MARK IS STAMPED - GIS 68  
 AGENCY INSCRIPTION - DESCHUTES COUNTY PUBLIC WORKS  
 THE STATION IS LOCATED ABOUT 5 MILE NORTHWEST OF BEND.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED WEST ON GREENWOOD AV. FOR 0.50 MI. TO THE INTERSECTION WITH WALL ST., PROCEED WESTWELY ON NEWPORT AV. 1.30 MI. TO POINT OF ROAD NAME CHANGE TO SHEVLEN PARK ROAD, CONTINUE ON SHEVLEN PARK ROAD FOR 2.70 MI. MORE TO ENTRANCE OF SHEVLEN PARK AND BEGINNING OF JOHNSON ROAD, PROCEED NORTHERLY ON JOHNSON ROAD FOR 2.3 MI TO THE INTERSECTION WITH TUMALO CREEK ROAD; PROCEED EAST FOR 270 FEET TO THE STATION ON THE RIGHT.

THE STATION MARK IS A 2 IN. ALUMINUM CAP ON A STEEL ROD IN A MASS OF CONCRETE 0.3 FT ABOVE GROUND LEVEL  
 1 FT. NORTH OF A WIRE FENCE LINE  
 1 FOOT SOUTH OF A WITNESS POST.  
 12 FEET SOUTH OF ROAD EDGE  
 270 FEET EAST OF JOHNSON ROAD  
  
 360 DEG. OF 15 DEG. MASK FOR GPS

Location and reference sketch:  
Name: GIS 68  
GIS #: 68



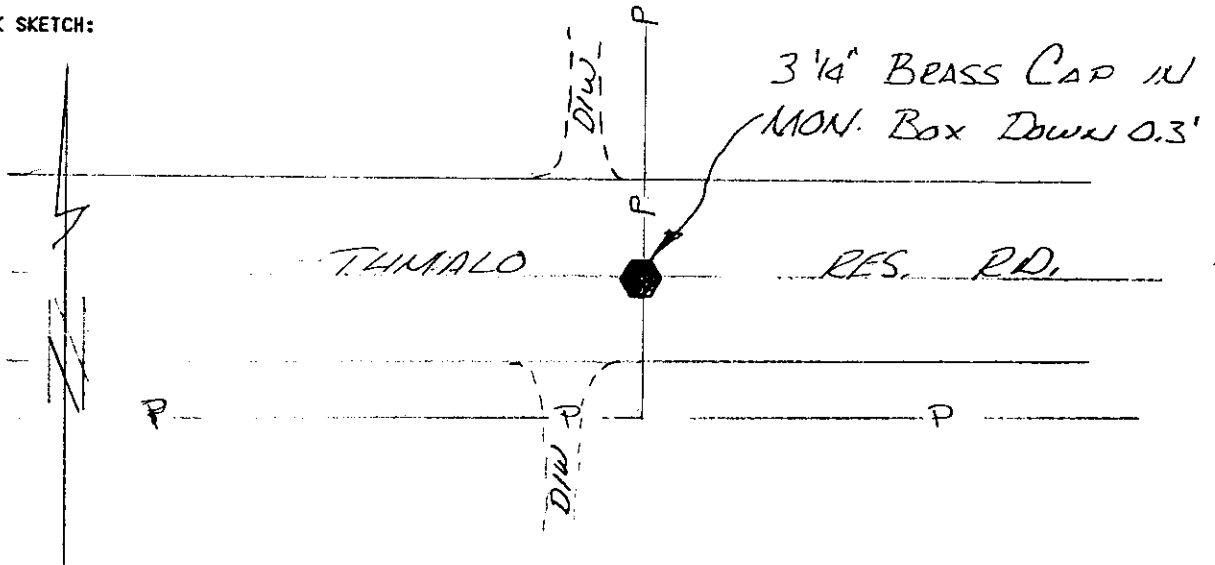
DESCHUTES COUNTY SURVEYOR'S OFFICE  
61150 S.E. 27th. St.  
Bend, Oregon. 97702  
(503) 383-4395

**ADJUSTED  
SURVEY POINTS  
IN  
DESCHUTES COUNTY  
PLANE COORDINATES**

## CONTROL MARK DATA

NAME OF MARK: 16113500 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 08/18/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 35 TOWNSHIP 16 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1143

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

MARK: 16113500 HORIZONTAL ORDER: FIRST

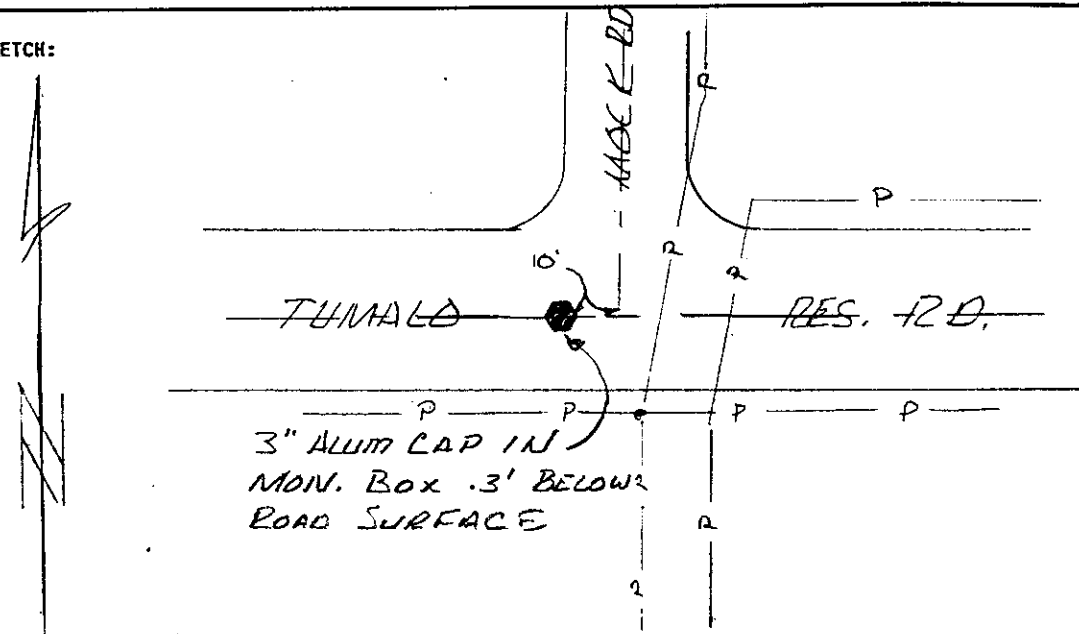
Latitude:	44°08'17.660529"	ONE
Longitude:	121°23'00.929229"	SIGMA
Northing:	414986.3658	ERROR
Easting:	3273674.8308	0.011
Convergence:	-0°04'11.3483"	0.011
Scale Factor:	1.000160791367	
Ellipsoid Height:	3410.0277	0.015
Orthometric Height:	3475.0719	0.019
Geoid Height:	-65.0442	



## CONTROL MARK DATA

NAME OF MARK: 16113600 COUNTY: DESCHUTES  
 MARK SET BY: LS 1081 JEFFERY KERN STATE: OREGON  
 DATE OF MARK: 7/1983 COUNTRY: U.S.A.  
 LOCATION: SECTION 36 TOWNSHIP 16 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 7434

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

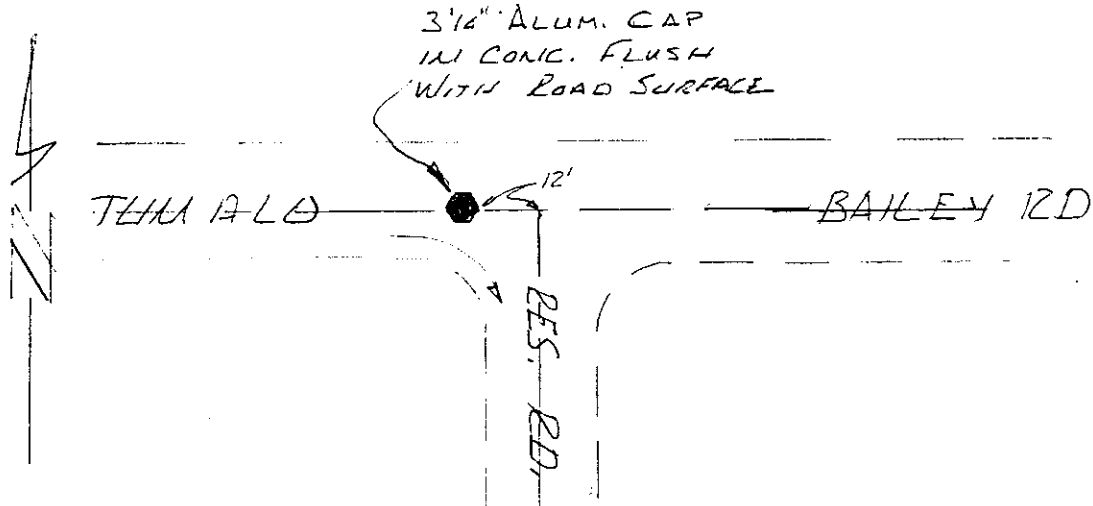
### GEODITIC AND MAPPING COORDINATES

<u>MARK:</u> <u>16113600</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°08'17.681910"	ONE SIGMA ERROR
Longitude:	121°21'48.920929"	
Northing:	414982.7697	0.013
Easting:	3278926.9171	0.013
Convergence:	-0°03'21.2023"	
Scale Factor:	1.000160507098	
Ellipsoid Height:	3318.2868	0.018
Orthometric Height:	3383.3785	0.021
Geoid Height:	-65.0917	

## CONTROL MARK DATA

NAME OF MARK: 16123100 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. PUBLIC WORKS STATE: OREGON  
 DATE OF MARK: 1/04/90 COUNTRY: U.S.A.  
 LOCATION: SECTION 31 TOWNSHIP 16S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1015

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

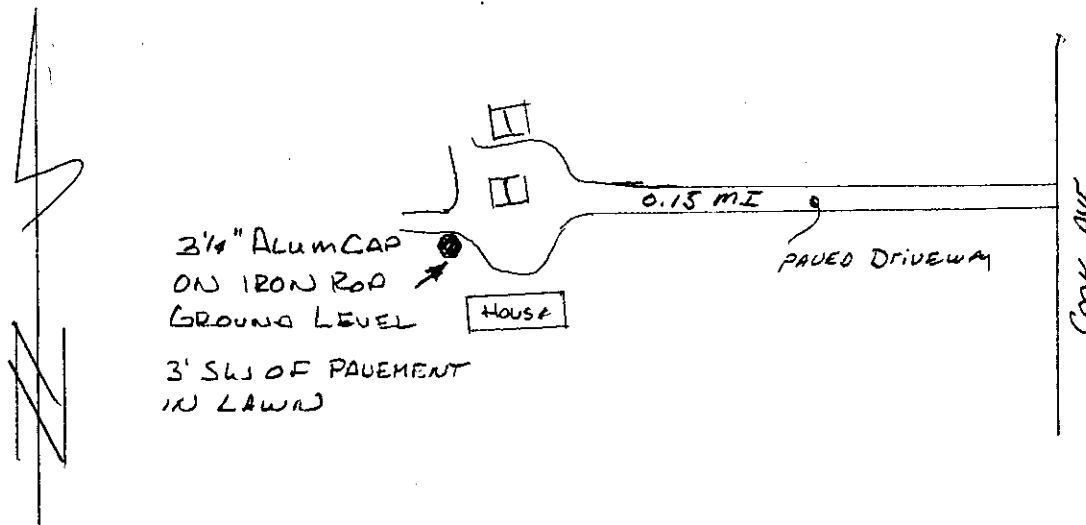
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 16123100</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°08'17.602777"	ONE SIGMA ERROR
Longitude:	121°20'36.087586"	
Northing:	414970.2263	0.010
Easting:	3284239.1713	0.010
Convergence:	-0°02'30.4816"	
Scale Factor:	1.000160283657	
Ellipsoid Height:	3309.4928	0.015
Orthometric Height:	3374.5971	0.019
Geoid Height:	-65.1044	

## CONTROL MARK DATA

NAME OF MARK: 16123104 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 31 TOWNSHIP 16S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 109

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

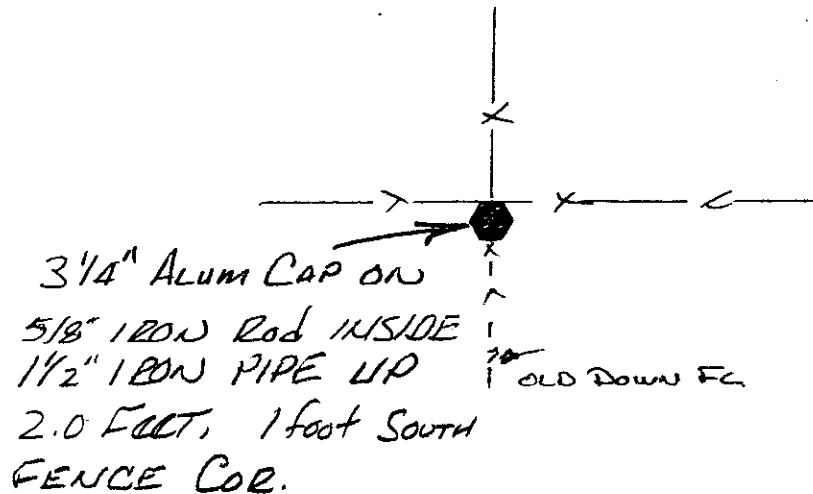
GEODITIC AND MAPPING COORDINATES

<u>MARK: 16123104</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°08'17.502343"	ONE SIGMA ERROR
Longitude:	121°20'02.348104"	
Northing:	414958.3992	0.015
Easting:	3286700.0292	0.013
Convergence:	-0°02'06.9857"	
Scale Factor:	1.000160201993	
Ellipsoid Height:	3132.3386	0.022
Orthometric Height:	3197.4386	0.025
Geoid Height:	-65.1	

## CONTROL MARK DATA

NAME OF MARK: 16123200 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 32 TOWNSHIP 16 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 110

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

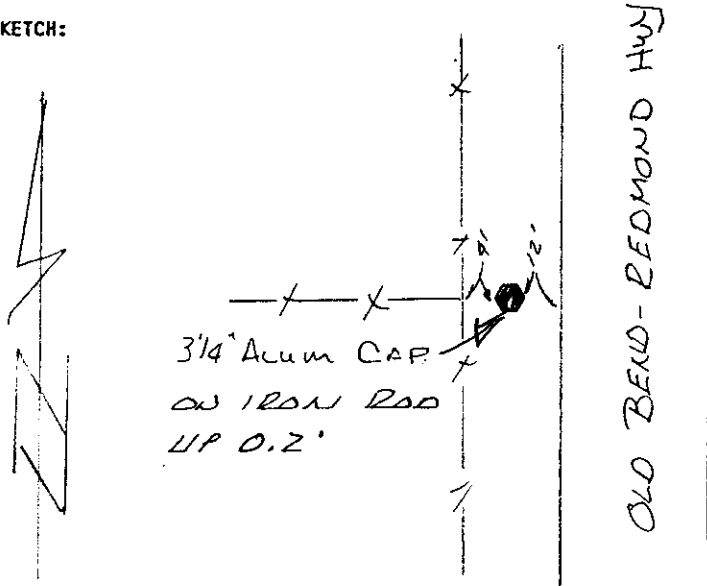
### GEODITIC AND MAPPING COORDINATES

<u>MARK:</u> <u>16123200</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°08'17.459191"	ONE SIGMA ERROR
Longitude:	121°19'26.184113"	
Northing:	414952.5659	0.012
Easting:	3289337.7295	0.011
Convergence:	-0°01'41.8013"	
Scale Factor:	1.000160129818	
Ellipsoid Height:	3249.6965	0.018
Orthometric Height:	3314.7733	0.022
Geoid Height:	-65.0767	

## CONTROL MARK DATA

NAME OF MARK: 16123204 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 32 TOWNSHIP 16S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 111

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

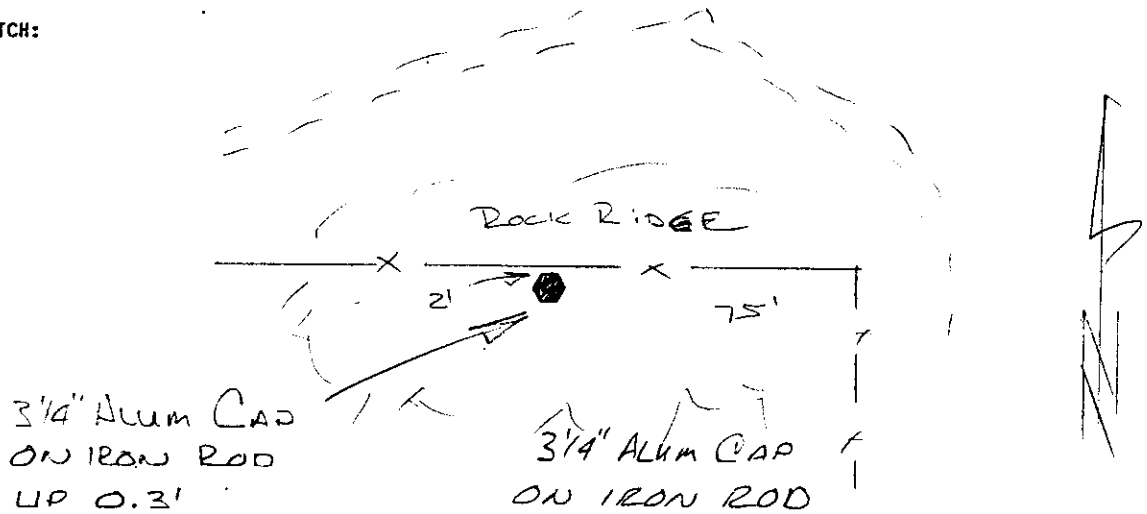
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 16123204</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°08'17.470308"	ONE SIGMA ERROR
Longitude:	121°18'50.017835"	
Northing:	414952.5509	0.017
Easting:	3291975.5996	0.014
Convergence:	-0°01'16.6155"	
Scale Factor:	1.000160073529	
Ellipsoid Height:	3266.4354	0.023
Orthometric Height:	3331.4954	0.026
Geoid Height:	-65.06	

## CONTROL MARK DATA

NAME OF MARK: 16123300 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 33 TOWNSHIP 16 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 112

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

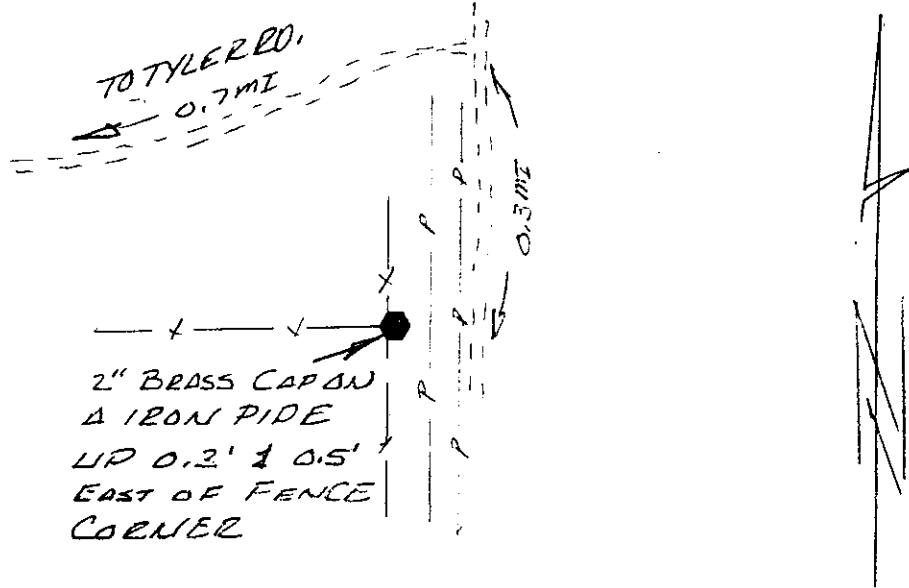
### GEODITIC AND MAPPING COORDINATES

<u>MARK:</u> <u>16123300</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°08'17.481471"	ONE SIGMA ERROR
Longitude:	121°18'13.838507"	
Northing:	414952.8626	0.008
Easting:	3294614.4213	0.008
Convergence:	-0°00'51.4205"	
Scale Factor:	1.000160033121	
Ellipsoid Height:	3307.564	0.011
Orthometric Height:	3372.6037	0.015
Geoid Height:	-65.0397	

## CONTROL MARK DATA

NAME OF MARK: 17110100 COUNTY: DESCHUTES  
 MARK SET BY: U.S. GOVERNMENT ? STATE: OREGON  
 DATE OF MARK: 1915+- COUNTRY: U.S.A.  
 LOCATION: SECTION 1 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17110100</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°07'25.464977"	ONE SIGMA ERROR
Longitude:	121°21'48.779545"	
Northing:	409694.2256	0.014
Easting:	3278932.0737	0.013
Convergence:	-0°03'21.0514"	
Scale Factor:	1.000160506851	
Ellipsoid Height:	3382.1885	0.019
Orthometric Height:	3447.1198	0.021
Geoid Height:	-64.9313	

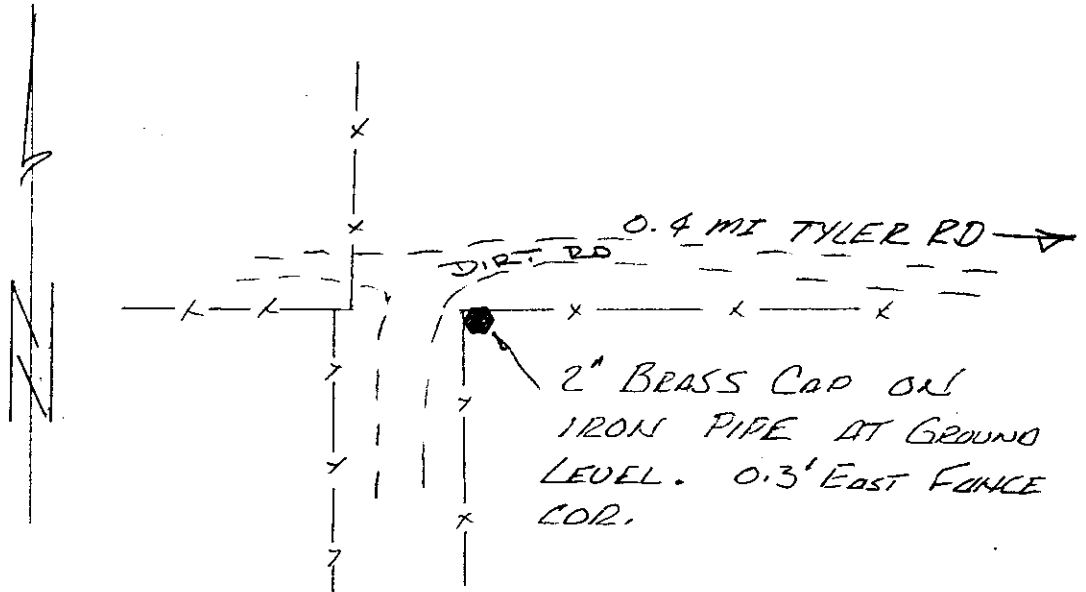




**CONTROL MARK DATA**

NAME OF MARK: 17110200 COUNTY: DESCHUTES  
MARK SET BY: U.S. GOVERNMENT ? STATE: OREGON  
DATE OF MARK: 1915+- COUNTRY: U.S.A.  
LOCATION: SECTION 2 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

**GEODITIC AND MAPPING COORDINATES**

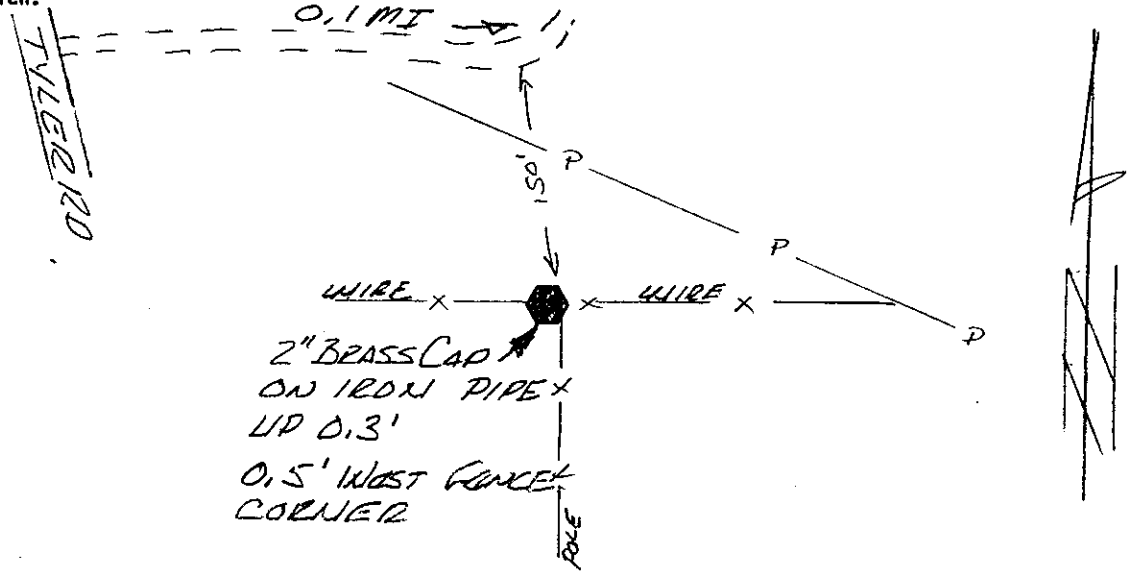
MARK: 17110200 HORIZONTAL ORDER: FIRST

Latitude:	<u>44°07'25.719194"</u>	ONE SIGMA ERROR
Longitude:	<u>121°23'00.996306"</u>	
Northing:	<u>409725.7502</u>	<u>0.014</u>
Easting:	<u>3273663.5275</u>	<u>0.013</u>
Convergence:	<u>-0°04'11.3298"</u>	
Scale Factor:	<u>1.000160792049</u>	
Ellipsoid Height:	<u>3452.4169</u>	<u>0.019</u>
Orthometric Height:	<u>3517.3144</u>	<u>0.022</u>
Geoid Height:	<u>-64.8976</u>	

## CONTROL MARK DATA

NAME OF MARK: 17110204 COUNTY: DESCHUTES  
 MARK SET BY: U.S. GOVERNMENT ? STATE: OREGON  
 DATE OF MARK: 1915+- COUNTRY: U.S.A.  
 LOCATION: SECTION 2 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

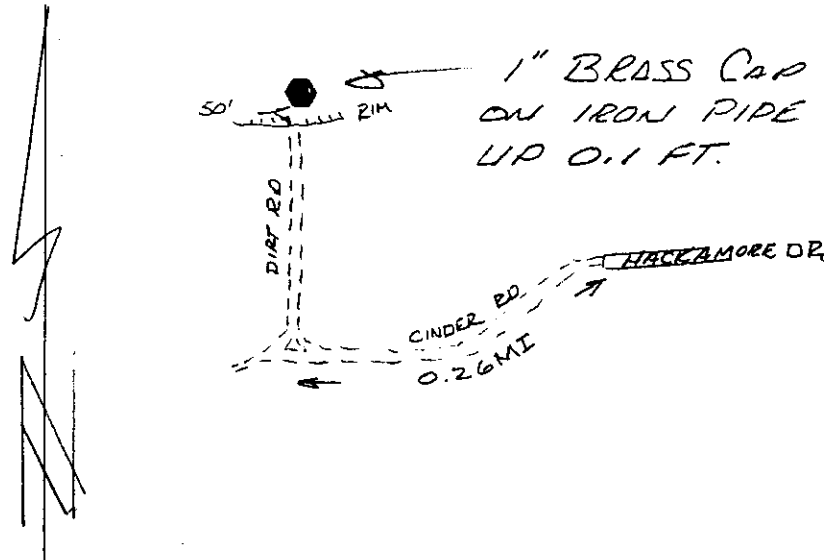
MARK: 17110204 HORIZONTAL ORDER: FIRST

Latitude:	44°07'25.562124"	ONE SIGMA ERROR
Longitude:	121°22'24.870437"	
Northing:	409706.7915	0.016
Easting:	3276299.0717	0.014
Convergence:	-0°03'46.1783"	
Scale Factor:	1.000160641457	
Ellipsoid Height:	3428.3962	0.022
Orthometric Height:	3493.3115	0.024
Geoid Height:	-64.9153	

## CONTROL MARK DATA

NAME OF MARK: 17111100 COUNTY: DESCHUTES  
 MARK SET BY: LS 0454 GENE HAWTHORNE STATE: OREGON  
 DATE OF MARK: 12/15/61 COUNTRY: U.S.A.  
 LOCATION: SECTION 11 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 2147

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

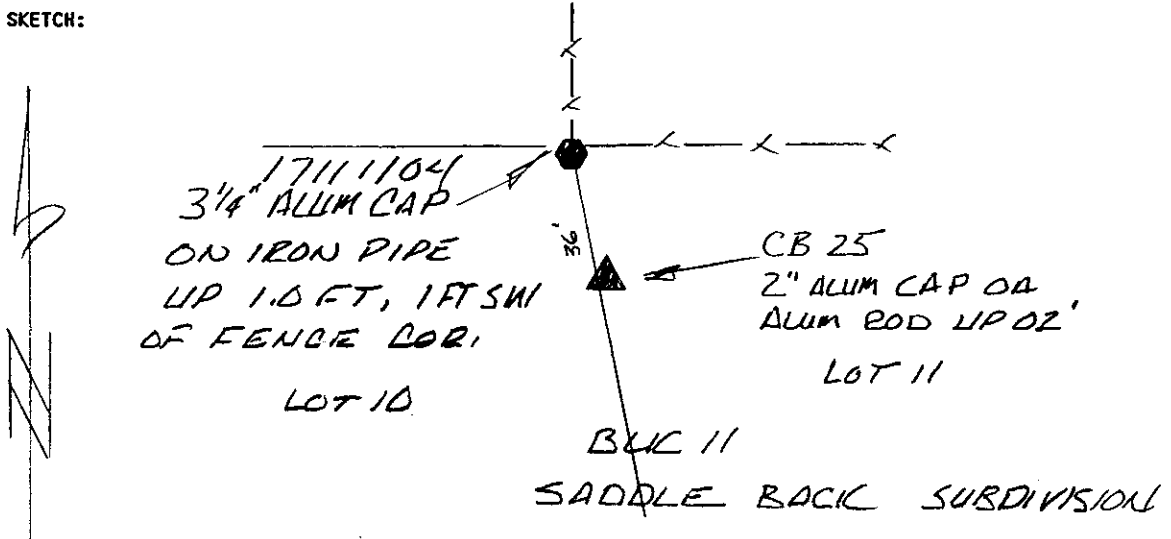
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17111100</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'33.892691"	ONE SIGMA ERROR
Longitude:	121°23'01.182400"	
Northing:	404476.7887	0.013
Easting:	3273643.5528	0.012
Convergence:	-0°04'11.3942"	
Scale Factor:	1.000160793254	
Ellipsoid Height:	3555.5461	0.018
Orthometric Height:	3620.3073	0.021
Geoid Height:	-64.7612	

## CONTROL MARK DATA

NAME OF MARK: 17111104 COUNTY: DESCHUTES  
 MARK SET BY: LS 2111 WALTER MILLER STATE: OREGON  
 DATE OF MARK: 6/20/88 COUNTRY: U.S.A.  
 LOCATION: SECTION 11 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 759

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

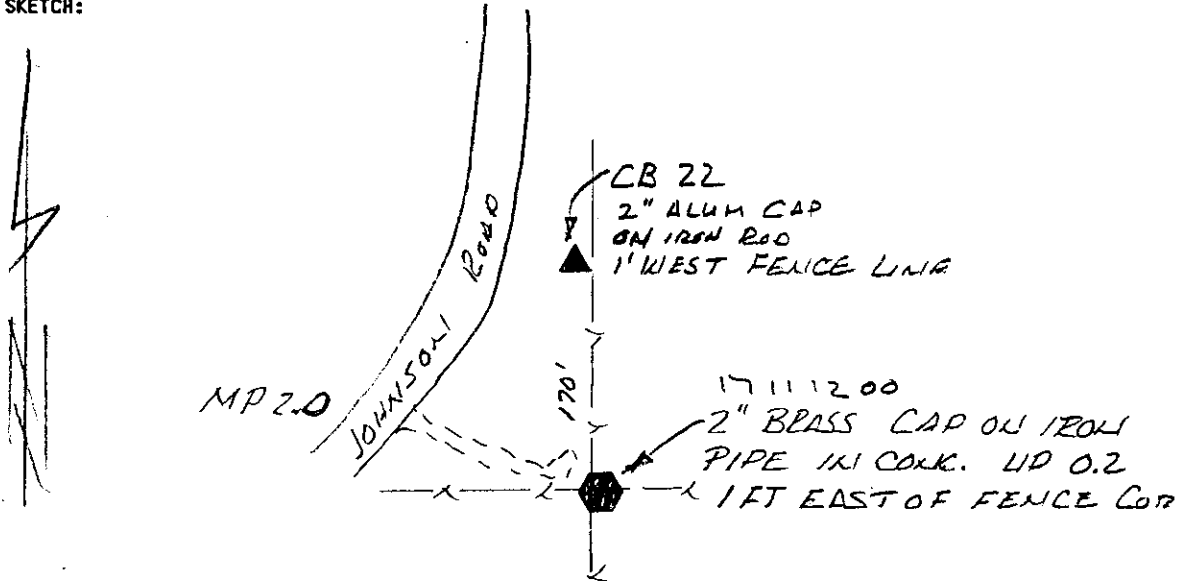
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17111104</u>	HORIZONTAL ORDER: <u>SECOND</u>	
Latitude:	44°06'33.827792"	ONE SIGMA ERROR
Longitude:	121°22'24.667767"	
Northing:	404467.1324	0.029
Easting:	3276308.1163	0.029
Convergence:	-0°03'45.9788"	
Scale Factor:	1.000160640970	
Ellipsoid Height:	3514.9768	0.034
Orthometric Height:	3579.7519	0.035
Geoid Height:	-64.7751	

## CONTROL MARK DATA

NAME OF MARK: 17111200 COUNTY: DESCHUTES  
 MARK SET BY: U.S. GOVERNMENT ? STATE: OREGON  
 DATE OF MARK: 1915+- COUNTRY: U.S.A.  
 LOCATION: SECTION 12 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

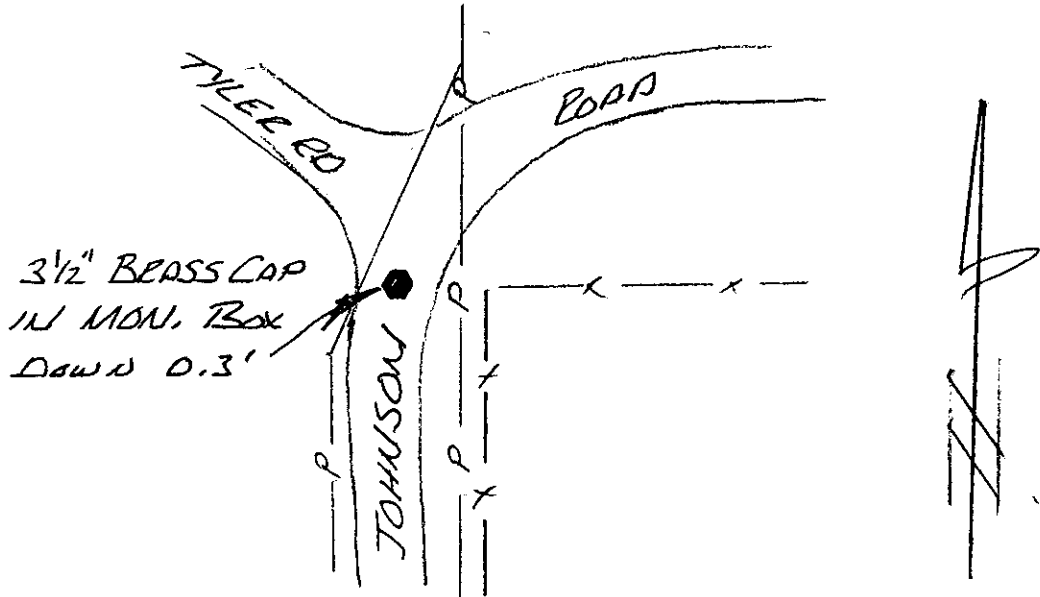
MARK: 17111200 HORIZONTAL ORDER: SECOND

Latitude:	44°06'33.540529"	ONE SIGMA ERROR
Longitude:	121°21'48.050127"	
Northing:	404435.2761	0.026
Easting:	3278980.1762	0.025
Convergence:	-0°03'20.4915"	
Scale Factor:	1.000160504541	
Ellipsoid Height:	3470.7523	0.028
Orthometric Height:	3535.5439	0.028
Geoid Height:	-64.7915	

## CONTROL MARK DATA

NAME OF MARK: 17111240 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 8/19/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 12 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1144

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

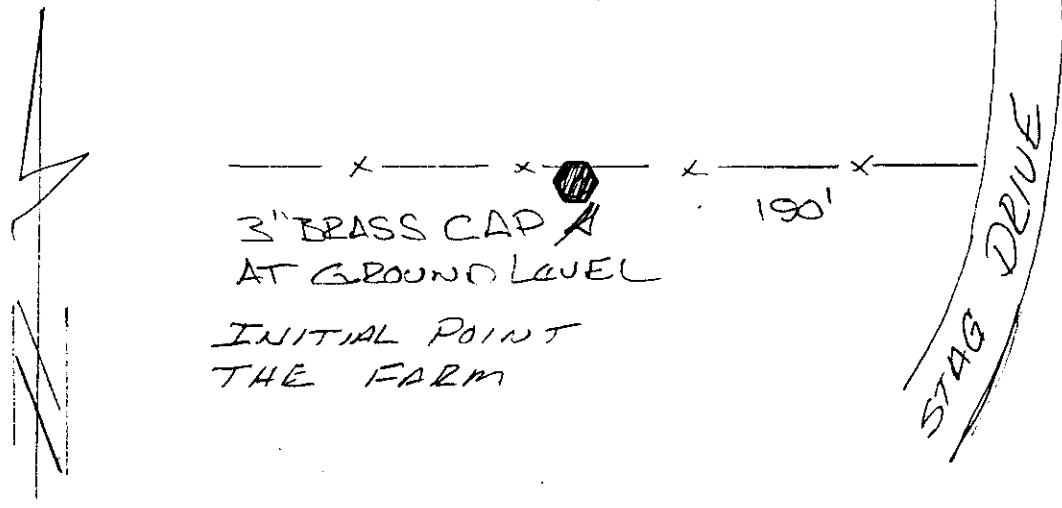
MARK: 17111240 HORIZONTAL ORDER: FIRST

Latitude:	44°06'59.500037"	ONE
Longitude:	121°21'48.411398"	SIGMA
Northing:	407064.4739	ERROR
Easting:	3278956.3721	0.012
Convergence:	-0°03'20.7690"	0.011
Scale Factor:	1.000160505684	
Ellipsoid Height:	3490.2897	0.016
Orthometric Height:	3555.1504	0.017
Geoid Height:	-64.8607	

### CONTROL MARK DATA

NAME OF MARK: 17111300 COUNTY: DESCHUTES  
 MARK SET BY: LS 1678 GARY HICKMAN STATE: OREGON  
 DATE OF MARK: 11/79 COUNTRY: U.S.A.  
 LOCATION: SECTION 13 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 07193

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

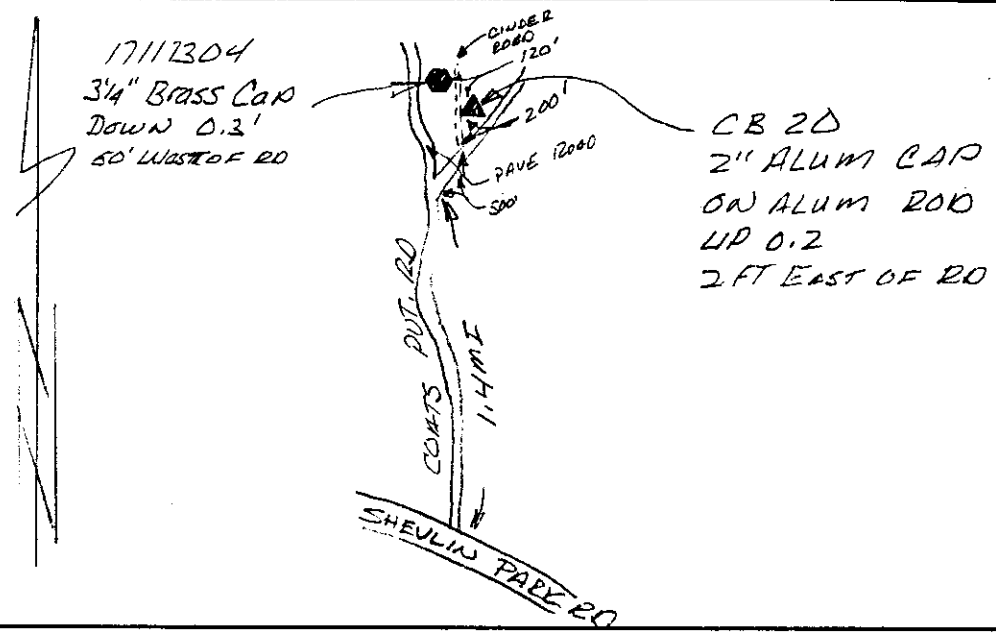
#### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17111300</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°05'41.590753"	ONE SIGMA ERROR
Longitude:	121°21'48.207144"	
Northing:	399173.8376	0.014
Easting:	3278963.6019	0.013
Convergence:	-0°03'20.5486"	
Scale Factor:	1.000160505339	
Ellipsoid Height:	3542.6359	0.021
Orthometric Height:	3607.2917	0.024
Geoid Height:	-64.6558	

## CONTROL MARK DATA

NAME OF MARK: 17111304 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 7/09/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 13 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1138

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

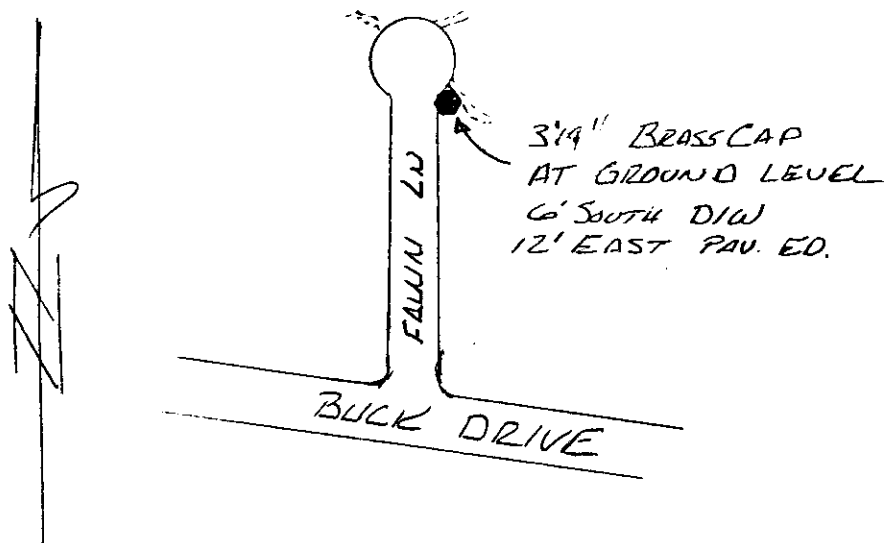
<u>MARK: 17111304</u>	HORIZONTAL ORDER: SECOND	
Latitude:	44°05'41.575622"	ONE SIGMA ERROR
Longitude:	121°21'12.118473"	
Northing:	399169.9043	0.027
Easting:	3281597.7326	0.027
Convergence:	-0°02'55.4363"	
Scale Factor:	1.000160386708	
Ellipsoid Height:	3573.9511	0.031
Orthometric Height:	3638.6208	0.033
Geoid Height:	-64.6697	



## CONTROL MARK DATA

NAME OF MARK: 17111340 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 4/08/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 13 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1136

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

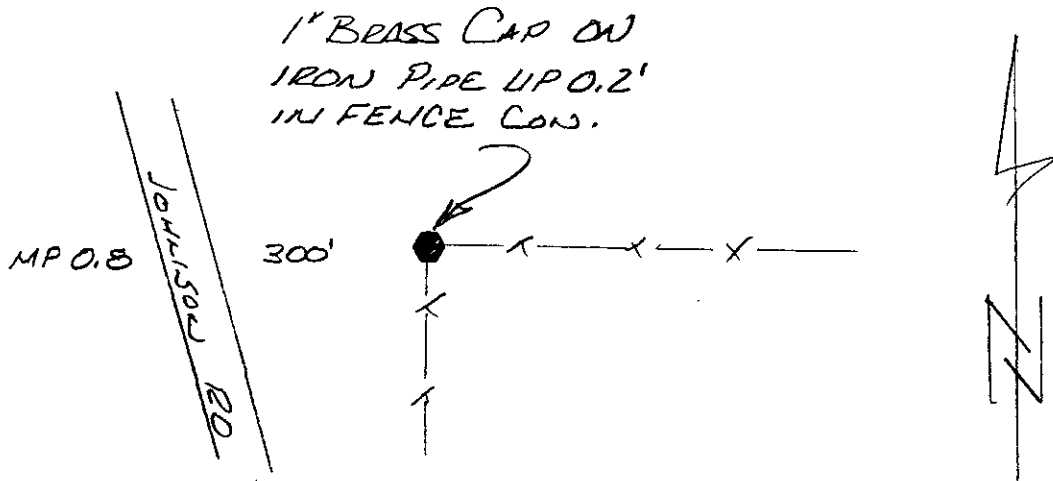
<u>MARK: 17111340</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'07.632694"	ONE SIGMA ERROR
Longitude:	121°21'48.249620"	
Northing:	401811.3549	0.014
Easting:	3278963.0665	0.013
Convergence:	-0°03'20.6043"	
Scale Factor:	1.000160505364	
Ellipsoid Height:	3496.0137	0.020
Orthometric Height:	3560.7373	0.022
Geoid Height:	-64.7236	



## CONTROL MARK DATA

NAME OF MARK: 17111404 COUNTY: DESCHUTES  
 MARK SET BY: LS 0454 GENE HAWTHORNE STATE: OREGON  
 DATE OF MARK: 12/15/61 COUNTRY: U.S.A.  
 LOCATION: SECTION 14 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 2147

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

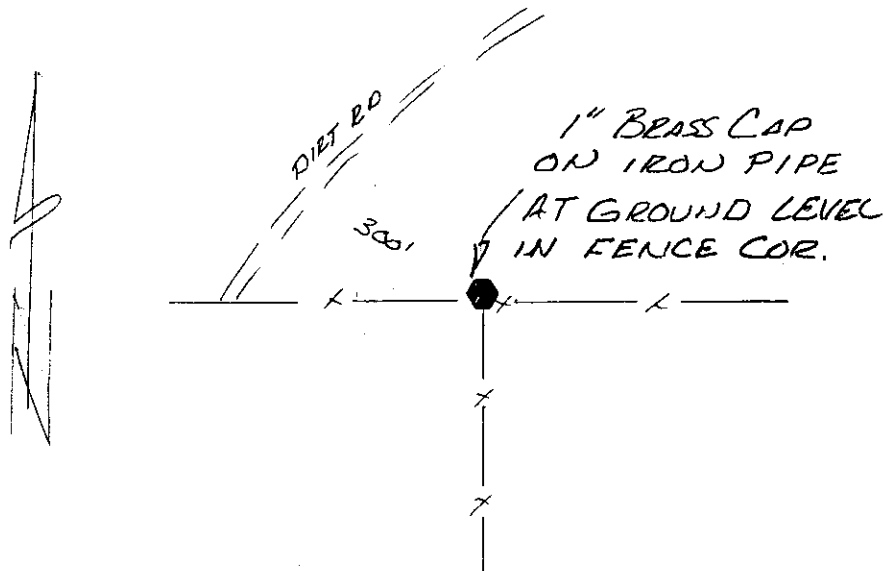
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17111404</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°05'41.657515"	ONE SIGMA ERROR
Longitude:	121°22'24.740340"	
Northing:	399183.3563	0.014
Easting:	3276297.0311	0.013
Convergence:	-0°03'45.9703"	
Scale Factor:	1.000160641572	
Ellipsoid Height:	3638.3974	0.020
Orthometric Height:	3703.0344	0.023
Geoid Height:	-64.637	

## CONTROL MARK DATA

NAME OF MARK: 17111440 COUNTY: DESCHUTES  
 MARK SET BY: LS 0454 GENE HAWTHORNE STATE: OREGON  
 DATE OF MARK: 12/15/61 COUNTRY: U.S.A.  
 LOCATION: SECTION 14 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 2147

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

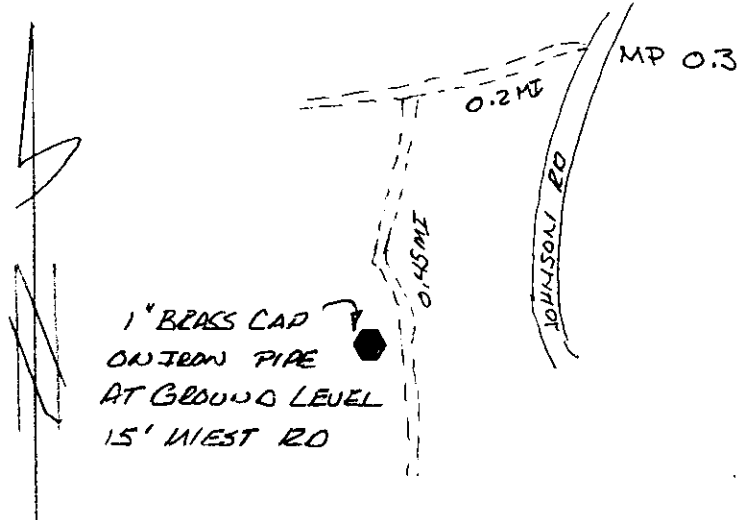
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17111440</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'07.819542"	ONE SIGMA ERROR
Longitude:	121°23'01.102448"	
Northing:	401836.1033	0.017
Easting:	3273646.1696	0.016
Convergence:	-0°04'11.3058"	
Scale Factor:	1.000160793098	
Ellipsoid Height:	3591.5261	0.023
Orthometric Height:	3656.2195	0.026
Geoid Height:	-64.6934	

## CONTROL MARK DATA

NAME OF MARK: 17112300 COUNTY: DESCHUTES  
 MARK SET BY: LS 0454 GENE HAWTHORNE STATE: OREGON  
 DATE OF MARK: 12/1961 COUNTRY: U.S.A.  
 LOCATION: SECTION 23 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1156

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

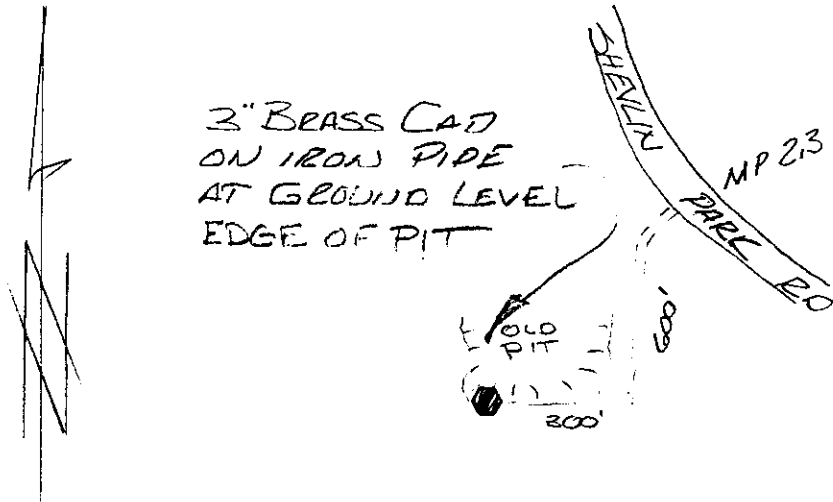
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17112300</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°04'49.641790"	ONE SIGMA ERROR
Longitude:	121°23'01.282863"	
Northing:	393918.3271	0.016
Easting:	3273623.353	0.015
Convergence:	-0°04'11.3330"	
Scale Factor:	1.000160794476	
Ellipsoid Height:	3678.0335	0.022
Orthometric Height:	3742.5243	0.026
Geoid Height:	-64.4908	

**CONTROL MARK DATA**

NAME OF MARK: 17112304 COUNTY: DESCHUTES  
 MARK SET BY: LS 0540 GEORGE COOK STATE: OREGON  
 DATE OF MARK: 9/30/74 COUNTRY: U.S.A.  
 LOCATION: SECTION 23 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 2173

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

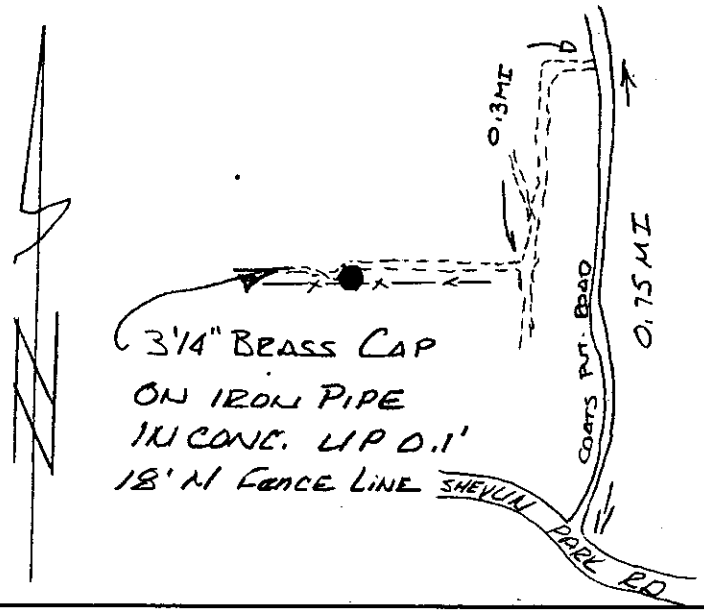
MARK: 17112304 HORIZONTAL ORDER: FIRST

Latitude:	44°04'49.607920"	ONE
Longitude:	121°22'24.790205"	SIGMA
Northing:	393911.8143	ERROR
Easting:	3276287.6162	0.015
Convergence:	-0°03'45.9461"	0.015
Scale Factor:	1.000160642084	
Ellipsoid Height:	3655.5715	0.022
Orthometric Height:	3720.072	0.025
Geoid Height:	-64.5005	

## CONTROL MARK DATA

NAME OF MARK: 17112400 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 6/30/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 24 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1140

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17112400</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°04'49.570499"	ONE SIGMA ERROR
Longitude:	121°21'48.296691"	
Northing:	393905.2697	0.013
Easting:	3278951.9423	0.012
Convergence:	-0°03'20.5587"	
Scale Factor:	1.000160505901	
Ellipsoid Height:	3718.5675	0.019
Orthometric Height:	3783.0884	0.023
Geoid Height:	-64.5209	

## CONTROL MARK DATA

NAME OF MARK: 17112404 COUNTY: DESCHUTES  
 MARK SET BY: LS 0599 JAMES BUSSARD STATE: OREGON  
 DATE OF MARK: 09/07/97 COUNTRY: U.S.A.  
 LOCATION: SECTION 24 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1139

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

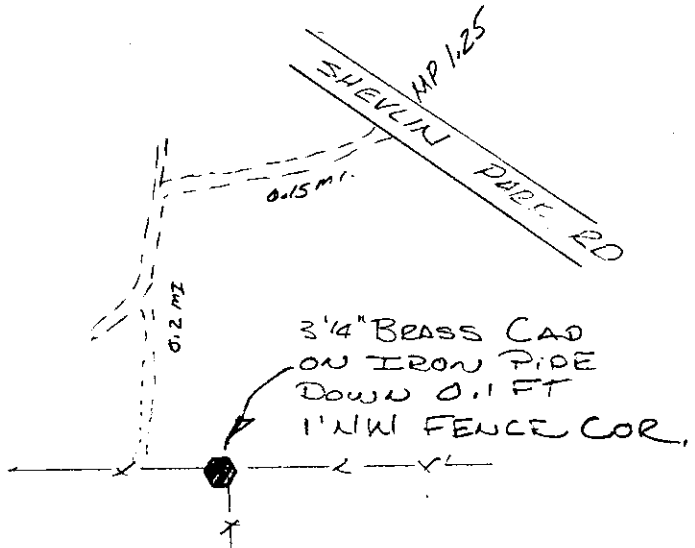
<u>MARK: 17112404</u>	HORIZONTAL ORDER: <u>SECOND</u>	
Latitude:	44°04'49.560835"	ONE SIGMA ERROR
Longitude:	121°21'12.187535"	
Northing:	393901.8882	0.027
Easting:	3281588.2104	0.026
Convergence:	-0°02'55.4387"	
Scale Factor:	1.000160387109	
Ellipsoid Height:	3611.6119	0.030
Orthometric Height:	3676.1487	0.033
Geoid Height:	-64.5368	



## CONTROL MARK DATA

NAME OF MARK: 17112500 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 8/20/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 25 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1146

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

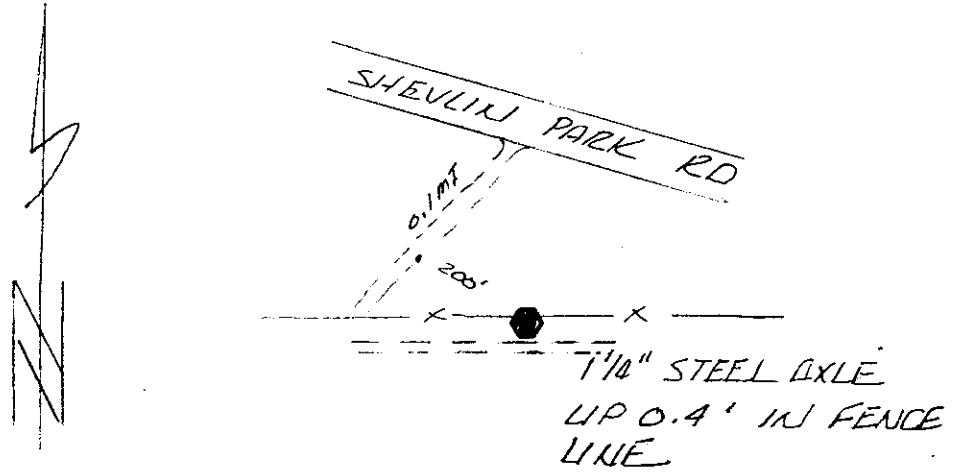
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17112500</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'57.543782"	ONE SIGMA ERROR
Longitude:	121°21'48.541233"	
Northing:	388636.0717	0.016
Easting:	3278928.9616	0.016
Convergence:	-0°03'20.6766"	
Scale Factor:	1.000160507008	
Ellipsoid Height:	3699.0577	0.024
Orthometric Height:	3763.4365	0.028
Geoid Height:	-64.3788	

## CONTROL MARK DATA

NAME OF MARK: 17112504 COUNTY: DESCHUTES  
 MARK SET BY: N/A STATE: OREGON  
 DATE OF MARK: N/A COUNTRY: U.S.A.  
 LOCATION: SECTION 25 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 02180

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

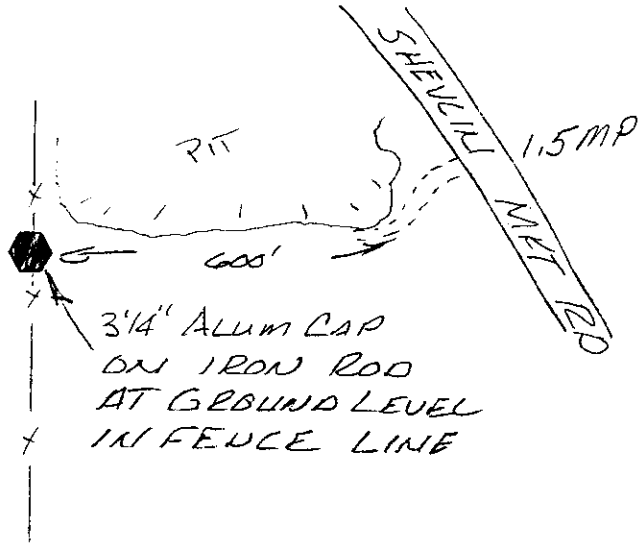
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17112504</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'57.604060"	ONE SIGMA ERROR
Longitude:	121°21'12.384046"	
Northing:	388639.7687	0.017
Easting:	3281569.3849	0.016
Convergence:	-0°02'55.5298"	
Scale Factor:	1.000160387902	
Ellipsoid Height:	3683.5004	0.027
Orthometric Height:	3747.8983	0.030
Geoid Height:	-64.3979	

## CONTROL MARK DATA

NAME OF MARK: 17112540 COUNTY: DESCHUTES  
 MARK SET BY: LS 0702 RAYMOND OMAN STATE: OREGON  
 DATE OF MARK: 1988 COUNTRY: U.S.A.  
 LOCATION: SECTION 25 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 966

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

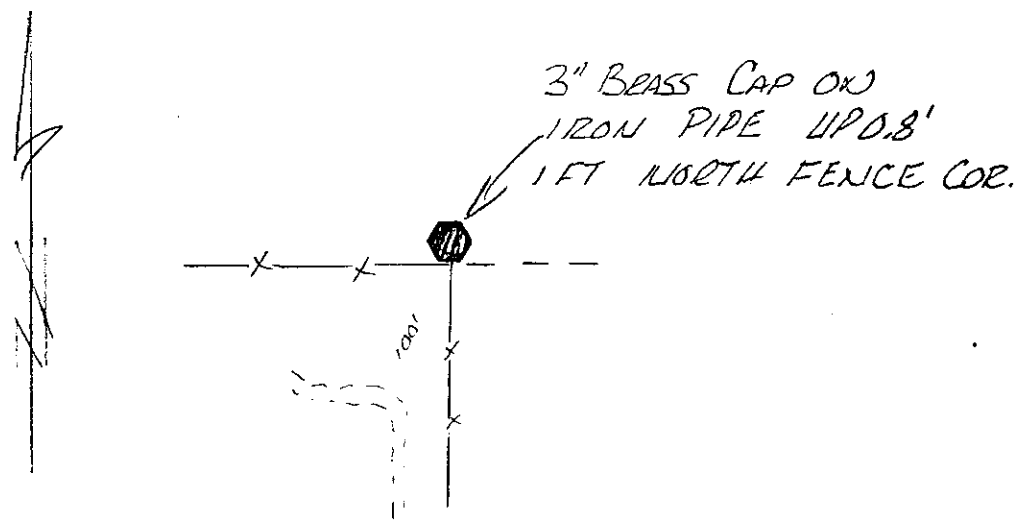
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17112540</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°04'23.445304"	ONE SIGMA ERROR
Longitude:	121°21'48.332706"	
Northing:	391259.3363	0.015
Easting:	3278946.74	0.015
Convergence:	-0°03'20.5575"	
Scale Factor:	1.000160506152	
Ellipsoid Height:	3671.8854	0.022
Orthometric Height:	3736.3307	0.026
Geoid Height:	-64.4454	

## CONTROL MARK DATA

NAME OF MARK: 17112600 COUNTY: DESCHUTES  
 MARK SET BY: LS 0540 GEORGE COOK STATE: OREGON  
 DATE OF MARK: 9/30/74 COUNTRY: U.S.A.  
 LOCATION: SECTION 26 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 2173

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

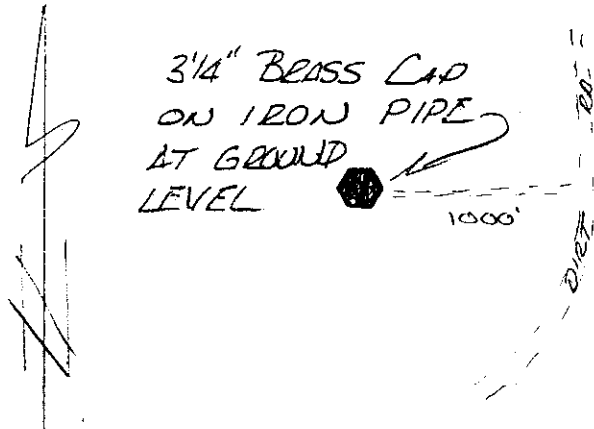
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17112600</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'57.609374"	ONE SIGMA ERROR
Longitude:	121°23'01.299332"	
Northing:	388648.5358	0.012
Easting:	3273615.7299	0.011
Convergence:	-0°04'11.2790"	
Scale Factor:	1.000160794938	
Ellipsoid Height:	3799.233	0.018
Orthometric Height:	3863.5793	0.023
Geoid Height:	-64.3463	

### CONTROL MARK DATA

NAME OF MARK: 17112604 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 8/19/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 26 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1149

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

#### GEODITIC AND MAPPING COORDINATES

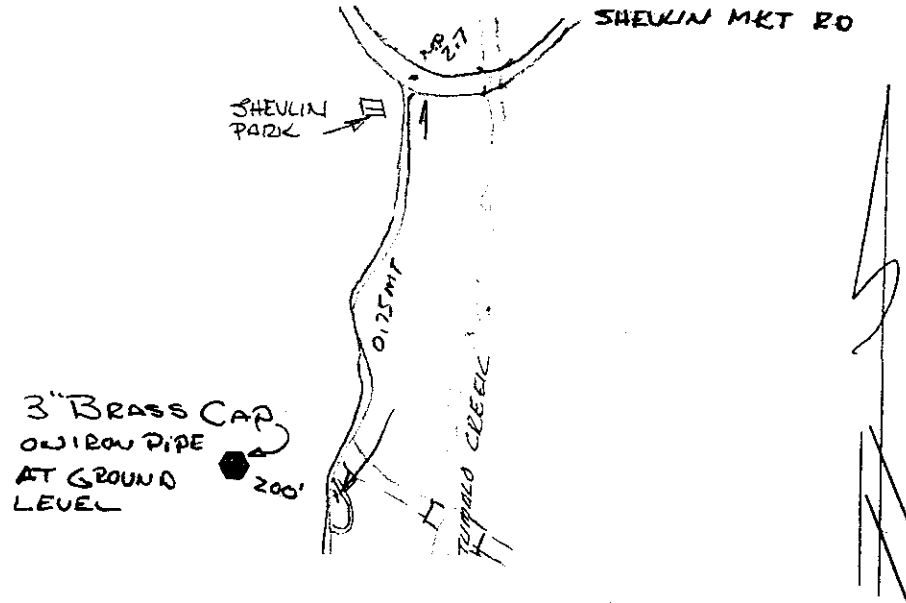
MARK: 17112604 HORIZONTAL ORDER: FIRST

Latitude:	44°03'57.555815"	ONE
Longitude:	121°22'24.772793"	SIGMA
Northing:	388640.0262	ERROR
Easting:	3276283.1136	0.016
Convergence:	-0°03'45.8751"	0.014
Scale Factor:	1.000160642330	
Ellipsoid Height:	3832.8929	0.022
Orthometric Height:	3897.249	0.026
Geoid Height:	-64.356	

## CONTROL MARK DATA

NAME OF MARK: 17112640 COUNTY: DESCHUTES  
 MARK SET BY: LS 0540 GEORGE COOK STATE: OREGON  
 DATE OF MARK: 9/30/74 COUNTRY: U.S.A.  
 LOCATION: SECTION 26 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 2173

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

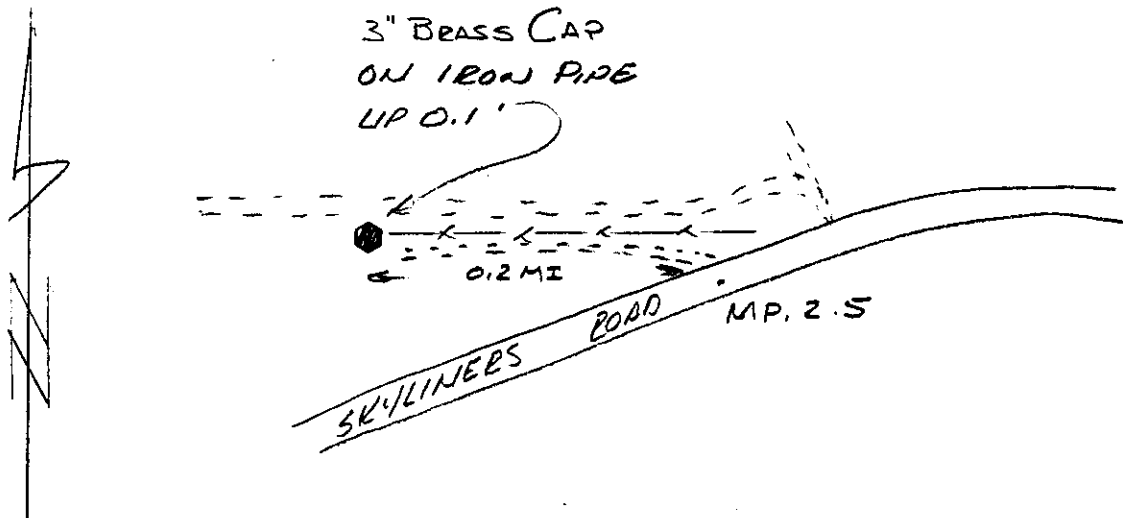
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17112640</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°04'23.774277"	ONE SIGMA ERROR
Longitude:	121°23'01.327652"	
Northing:	391298.4928	0.019
Easting:	3273616.8905	0.019
Convergence:	-0°04'11.3316"	
Scale Factor:	1.000160794867	
Ellipsoid Height:	3646.1219	0.027
Orthometric Height:	3710.5353	0.030
Geoid Height:	-64.4134	

## CONTROL MARK DATA

NAME OF MARK: 17113500 COUNTY: DESCHUTES  
 MARK SET BY: LS 1068 DAVID BATEMAN STATE: OREGON  
 DATE OF MARK: 2/21/90 COUNTRY: U.S.A.  
 LOCATION: SECTION 35 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1034

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

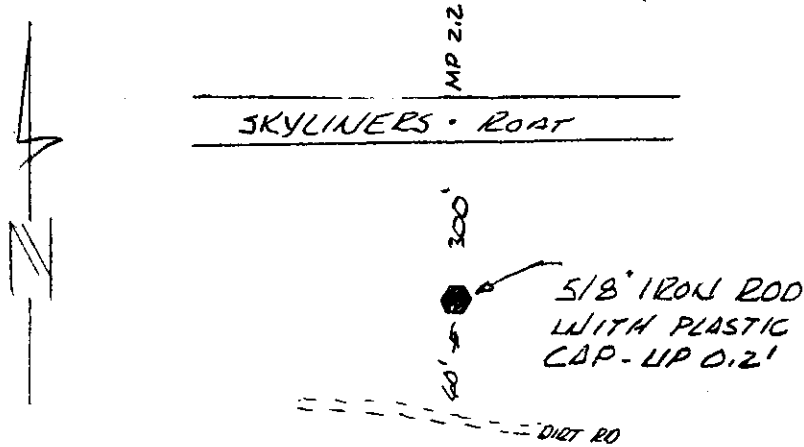
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17113500</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'05.891707"	ONE SIGMA ERROR
Longitude:	121°23'00.499609"	
Northing:	383410.5628	0.036
Easting:	3273667.7645	0.023
Convergence:	-0°04'10.6578"	
Scale Factor:	1.000160791808	
Ellipsoid Height:	3801.5468	0.040
Orthometric Height:	3865.7648	0.042
Geoid Height:	-64.2181	

## CONTROL MARK DATA

NAME OF MARK: 17113504 COUNTY: DESCHUTES  
 MARK SET BY: LS 1678 GARY HICKMAN STATE: OREGON  
 DATE OF MARK: 12/04/90 COUNTRY: U.S.A.  
 LOCATION: SECTION 35 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 2178

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

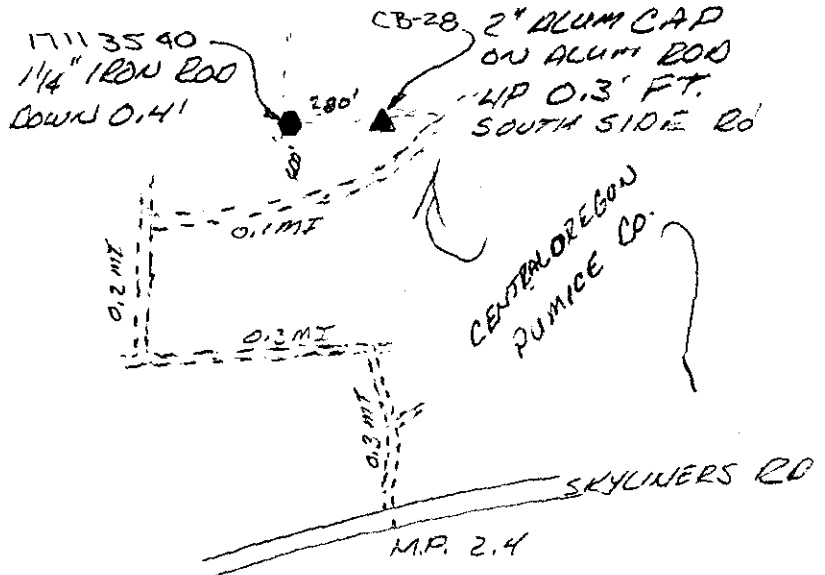
<u>MARK: 17113504</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'05.533787"	ONE SIGMA ERROR
Longitude:	121°22'25.178717"	
Northing:	383371.3316	0.020
Easting:	3276247.6945	0.017
Convergence:	-0°03'46.0985"	
Scale Factor:	1.000160644252	
Ellipsoid Height:	3785.9334	0.028
Orthometric Height:	3850.1586	0.031
Geoid Height:	-64.2252	



## CONTROL MARK DATA

NAME OF MARK: 17113540 COUNTY: DESCHUTES  
 MARK SET BY: N/A STATE: OREGON  
 DATE OF MARK: N/A COUNTRY: U.S.A.  
 LOCATION: SECTION 35 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 02177

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

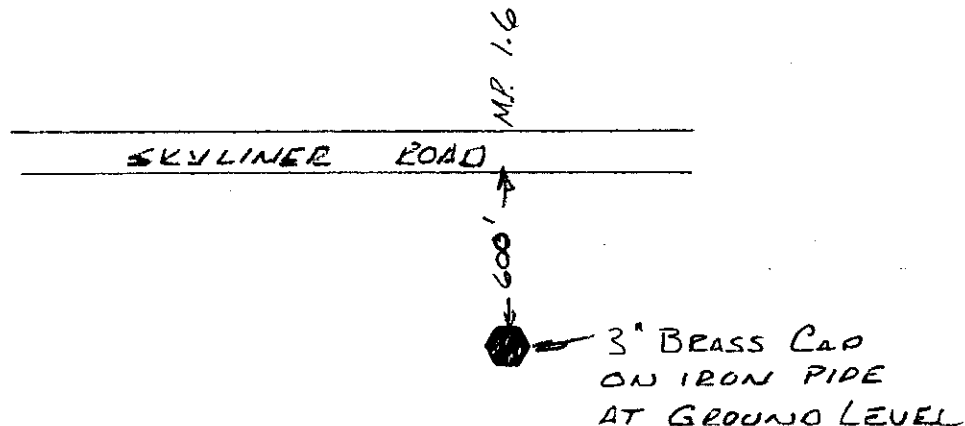
MARK: 17113540 HORIZONTAL ORDER: SECOND

	Latitude: <u>44°03'31.530872"</u>	ONE SIGMA ERROR
	Longitude: <u>121°23'01.407178"</u>	
	Northing: <u>386007.3451</u>	0.029
	Easting: <u>3273604.636</u>	0.028
	Convergence: <u>-0°04'11.3211"</u>	
	Scale Factor: <u>1.000160795608</u>	
	Ellipsoid Height: <u>3870.6986</u>	0.034
	Orthometric Height: <u>3934.9792</u>	0.037
	Geoid Height: <u>-64.2806</u>	

## CONTROL MARK DATA

NAME OF MARK: 17113600 COUNTY: DESCHUTES  
 MARK SET BY: LS 1068 DAVID BATEMAN STATE: OREGON  
 DATE OF MARK: 2/21/90 COUNTRY: U.S.A.  
 LOCATION: SECTION 36 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1033

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

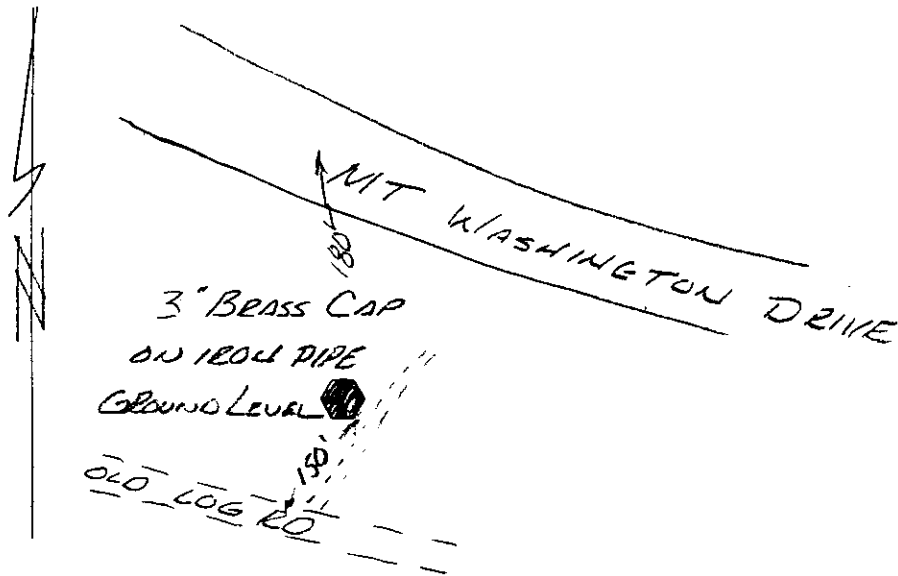
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17113600</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'05.643087"	ONE
Longitude:	121°21'48.764521"	SIGMA
Northing:	383379.6489	ERROR
Easting:	3278907.5384	0.017
Convergence:	-0°03'20.7796"	0.015
Scale Factor:	1.000160508041	
Ellipsoid Height:	3728.8591	0.025
Orthometric Height:	3793.1077	0.028
Geoid Height:	-64.2485	

## CONTROL MARK DATA

NAME OF MARK: 17113604 COUNTY: DESCHUTES  
 MARK SET BY: LS 1068 DAVID BATEMAN STATE: OREGON  
 DATE OF MARK: 3/06/90 COUNTRY: U.S.A.  
 LOCATION: SECTION 36 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1035

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

MARK: 17113604 HORIZONTAL ORDER: FIRST

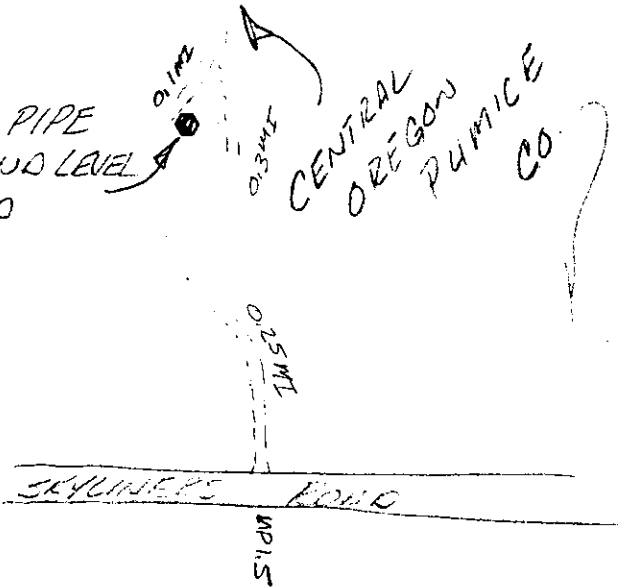
Latitude:	44°03'05.544836"	ONE
Longitude:	121°21'12.581047"	SIGMA
Northing:	383367.2867	ERROR
Easting:	3281550.5089	0.021
Convergence:	-0°02'55.6210"	0.018
Scale Factor:	1.000160388699	
Ellipsoid Height:	3683.6381	0.033
Orthometric Height:	3747.9059	0.035
Geoid Height:	-64.2678	

## CONTROL MARK DATA

NAME OF MARK: 17113640 COUNTY: DESCHUTES  
 MARK SET BY: LS 1228 JOHN JOYCE STATE: OREGON  
 DATE OF MARK: 7/80 COUNTRY: U.S.A.  
 LOCATION: SECTION 36 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 02177

MARK SKETCH:

2 1/2" IRON PIPE  
 AT GROUND LEVEL  
 36' EAST RD



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

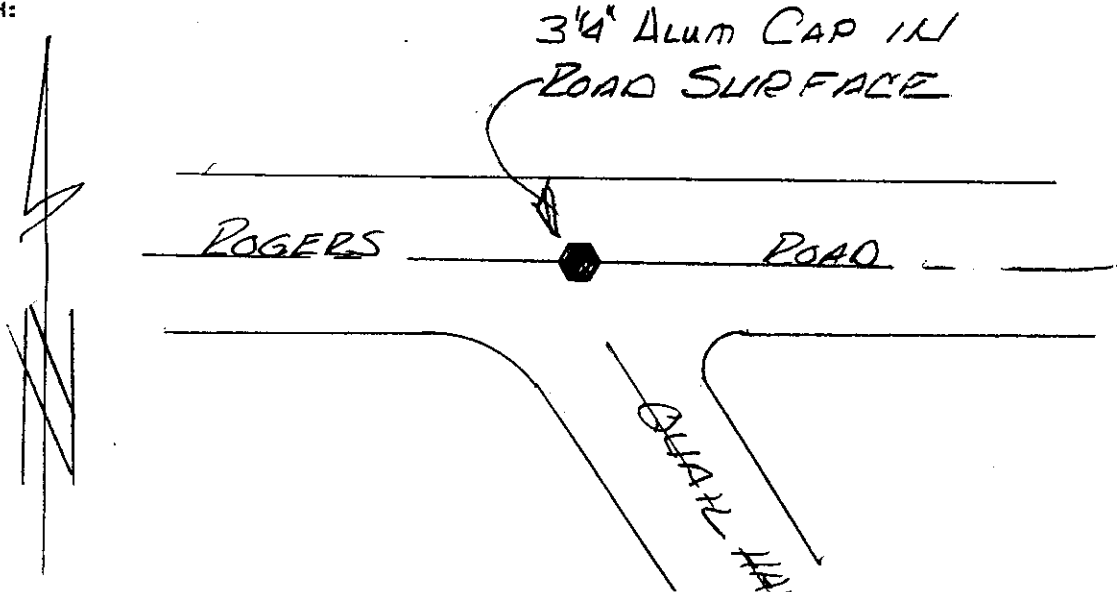
MARK: 17113640 HORIZONTAL ORDER: FIRST

Latitude:	44°03'31.592978"	ONE
Longitude:	121°21'48.652764"	SIGMA
Northing:	386007.8124	ERROR
Easting:	3278918.259	0.017
Convergence:	-0°03'20.7280"	0.016
Scale Factor:	1.000160507524	
Ellipsoid Height:	3684.3446	0.026
Orthometric Height:	3748.6579	0.029
Geoid Height:	-64.3132	

## CONTROL MARK DATA

NAME OF MARK: 17120400 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 4 TOWNSHIP 17S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 126

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

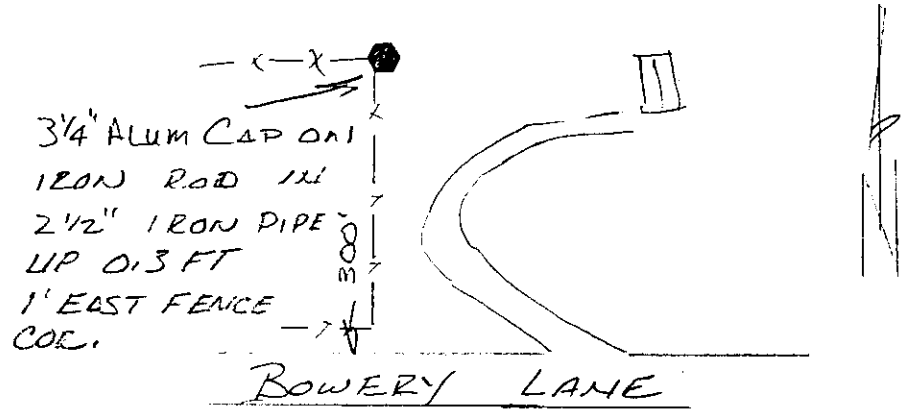
MARK: 17120400 HORIZONTAL ORDER: FIRST

Latitude:	44°07'25.314970"	ONE
Longitude:	121°18'13.385390"	SIGMA
Northing:	409669.4283	ERROR
Easting:	3294646.1615	0.009
Convergence:	-0°00'51.0916"	0.008
Scale Factor:	1.000160032732	
Ellipsoid Height:	3356.6575	0.012
Orthometric Height:	3421.5602	0.015
Geoid Height:	-64.9027	

### CONTROL MARK DATA

NAME OF MARK: 17120404 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/2087 COUNTRY: U.S.A.  
 LOCATION: SECTION 4 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 127

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

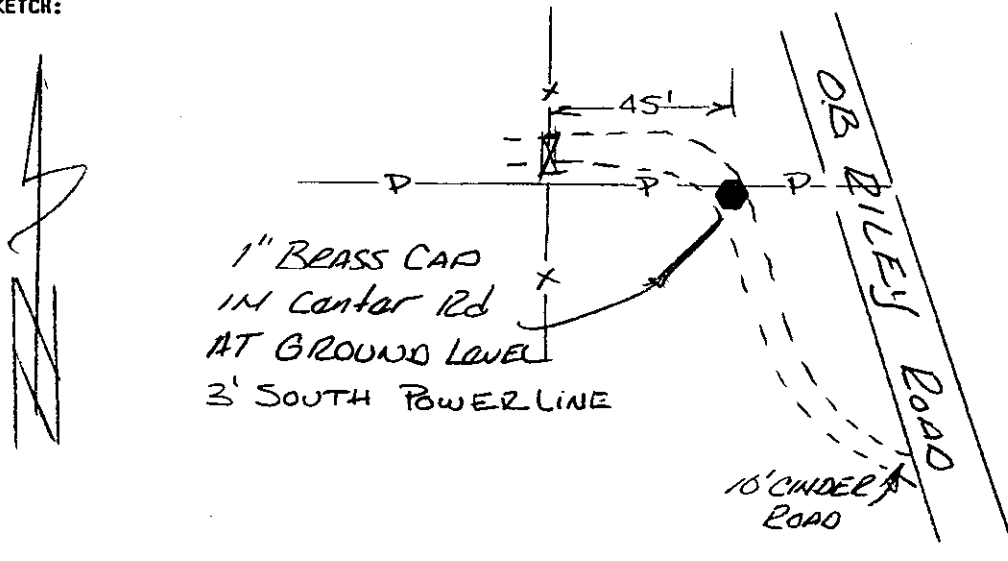
#### GEODITIC AND MAPPING COORDINATES

MARK: <u>17120404</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°07'25.322209"	ONE SIGMA ERROR
Longitude:	121°17'37.571059"	
Northing:	409669.6722	0.017
Easting:	3297258.9997	0.016
Convergence:	-0°00'26.1573"	
Scale Factor:	1.000160008579	
Ellipsoid Height:	3347.0622	0.027
Orthometric Height:	3411.9458	0.028
Geoid Height:	-64.8836	

### CONTROL MARK DATA

NAME OF MARK: 17120500 COUNTY: DESCHUTES  
 MARK SET BY: LS 0344 CHARLES REYNOLDS STATE: OREGON  
 DATE OF MARK: 6/15/65 COUNTRY: U.S.A.  
 LOCATION: SECTION 5 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR CS 4899

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

#### GEODITIC AND MAPPING COORDINATES

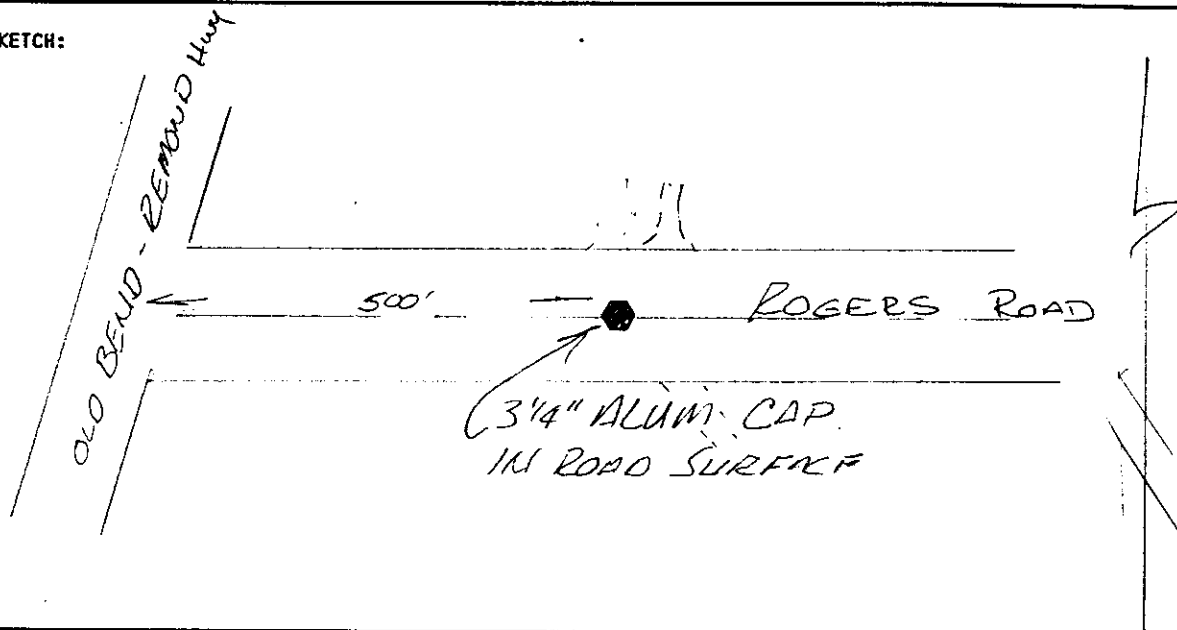
MARK: 17120500 HORIZONTAL ORDER: FIRST

Latitude:	44°07'25.204790"	ONE
Longitude:	121°19'25.806481"	SIGMA
Northing:	409660.2237	ERROR
Easting:	3289362.668	0.010
Convergence:	-0°01'41.5118"	0.010
Scale Factor:	1.000160129212	
Ellipsoid Height:	3357.6694	0.014
Orthometric Height:	3422.5998	0.018
Geoid Height:	-64.9304	

## CONTROL MARK DATA

NAME OF MARK: 17120504 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 5 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 125

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

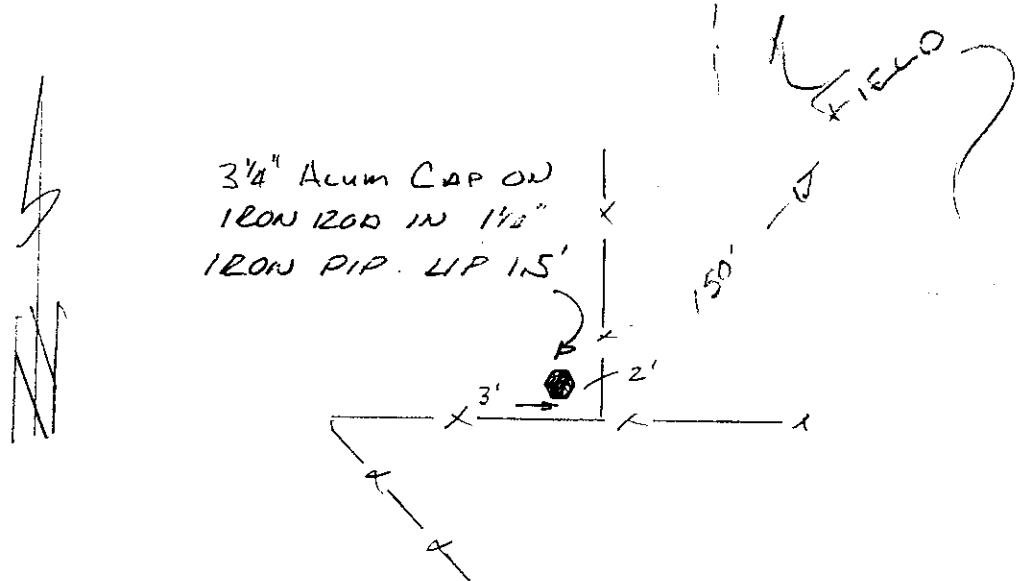
<u>MARK: 17120504</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°07'25.251383"	ONE SIGMA ERROR
Longitude:	121°18'49.671619"	
Northing:	409663.806	0.012
Easting:	3291998.8936	0.011
Convergence:	-0°01'16.3544"	
Scale Factor:	1.000160073103	
Ellipsoid Height:	3356.1462	0.016
Orthometric Height:	3421.0647	0.019
Geoid Height:	-64.9184	



## CONTROL MARK DATA

NAME OF MARK: 17120540 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 5 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 118

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

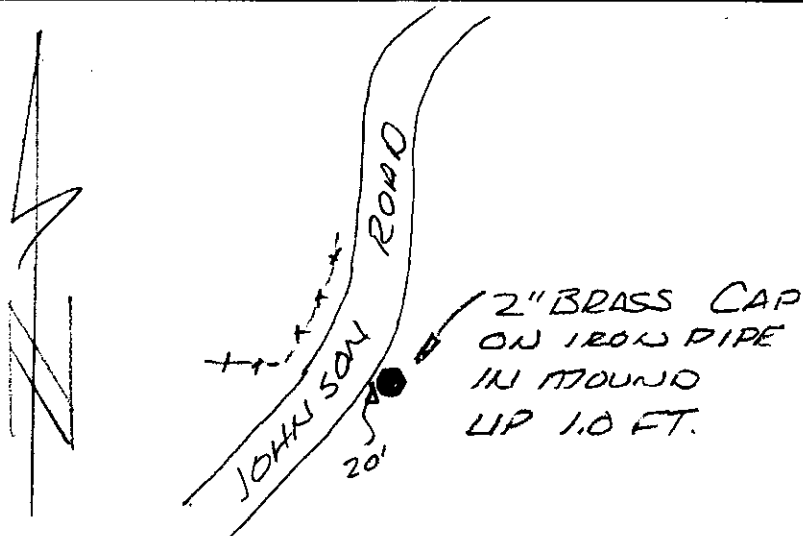
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17120540</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°07'51.453984"	ONE SIGMA ERROR
Longitude:	121°19'25.433354"	
Northing:	412318.7285	0.013
Easting:	3289391.1946	0.012
Convergence:	-0°01'41.2654"	
Scale Factor:	1.000160128520	
Ellipsoid Height:	3291.4345	0.017
Orthometric Height:	3356.449	0.021
Geoid Height:	-65.0145	

### CONTROL MARK DATA

NAME OF MARK: 17120600 COUNTY: DESCHUTES  
 MARK SET BY: U.S. GOVERNMENT ? STATE: OREGON  
 DATE OF MARK: 1915+- COUNTRY: U.S.A.  
 LOCATION: SECTION 6 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 123

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

#### GEODITIC AND MAPPING COORDINATES

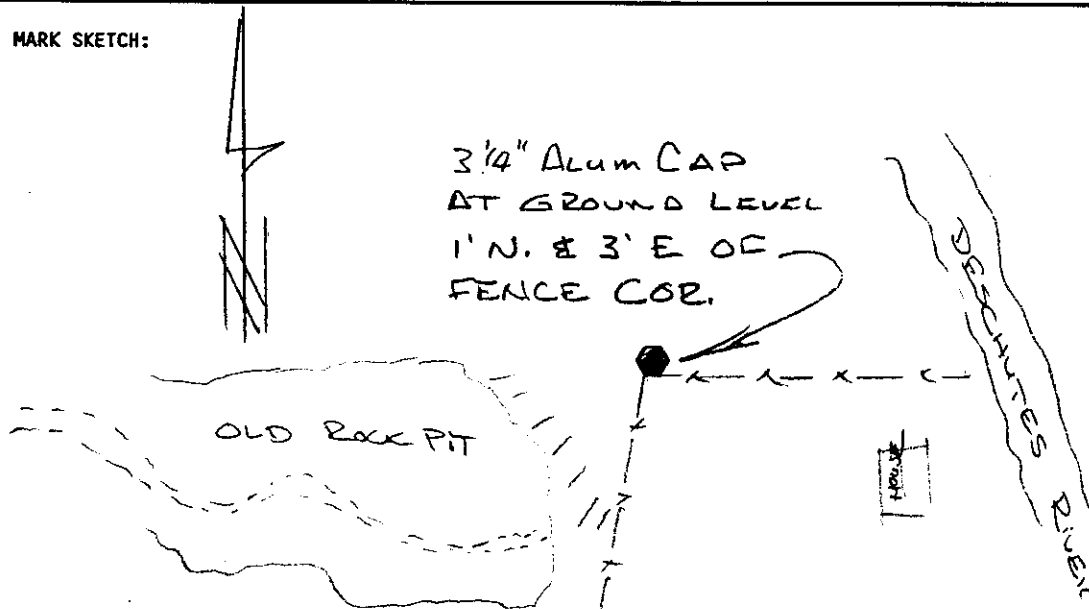
MARK: 17120600 HORIZONTAL ORDER: FIRST

Latitude:	44°07'25.375219"	ONE
Longitude:	121°20'36.146907"	SIGMA
Northing:	409680.6195	ERROR
Easting:	3284230.9849	0.011
Convergence:	-0°02'30.4837"	0.011
Scale Factor:	1.000160283953	
Ellipsoid Height:	3281.2348	0.015
Orthometric Height:	3346.1811	0.018
Geoid Height:	-64.9463	

### CONTROL MARK DATA

NAME OF MARK: 17120604 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 6 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 124

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

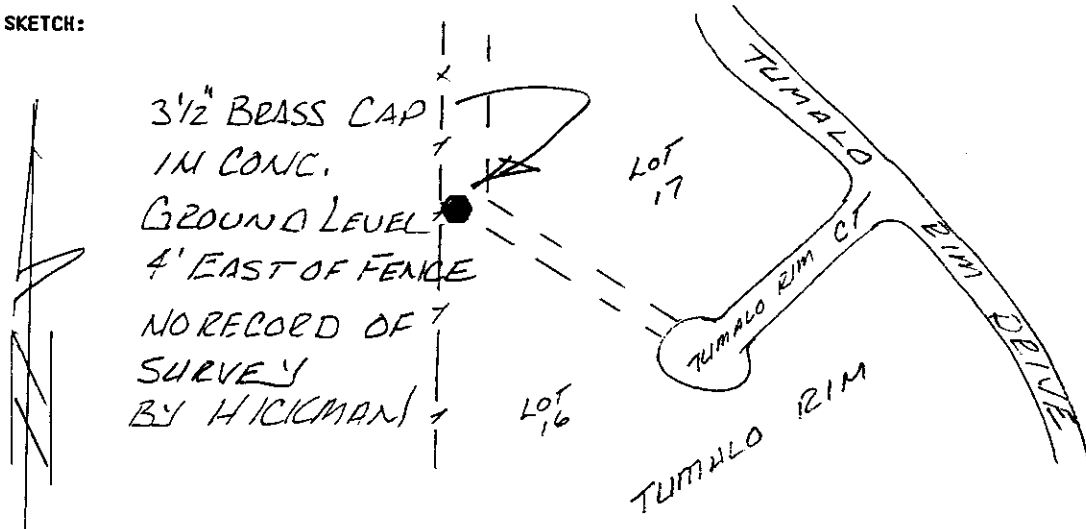
#### GEODITIC AND MAPPING COORDINATES

<u>MARK:</u> <u>17120604</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°07'25.368638"	ONE SIGMA ERROR
Longitude:	121°20'01.879002"	
Northing:	409678.2737	0.013
Easting:	3286731.0024	0.013
Convergence:	-0°02'06.6260"	
Scale Factor:	1.000160201054	
Ellipsoid Height:	3194.0027	0.018
Orthometric Height:	3258.9477	0.021
Geoid Height:	-64.945	

## CONTROL MARK DATA

NAME OF MARK: 17120640 COUNTY: DESCHUTES  
 MARK SET BY: LS 1678 GARY HICKMAN STATE: OREGON  
 DATE OF MARK: N/A COUNTRY: U.S.A.  
 LOCATION: SECTION 6 TOWNSHIP 17S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 094

**MARK SKETCH:**



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

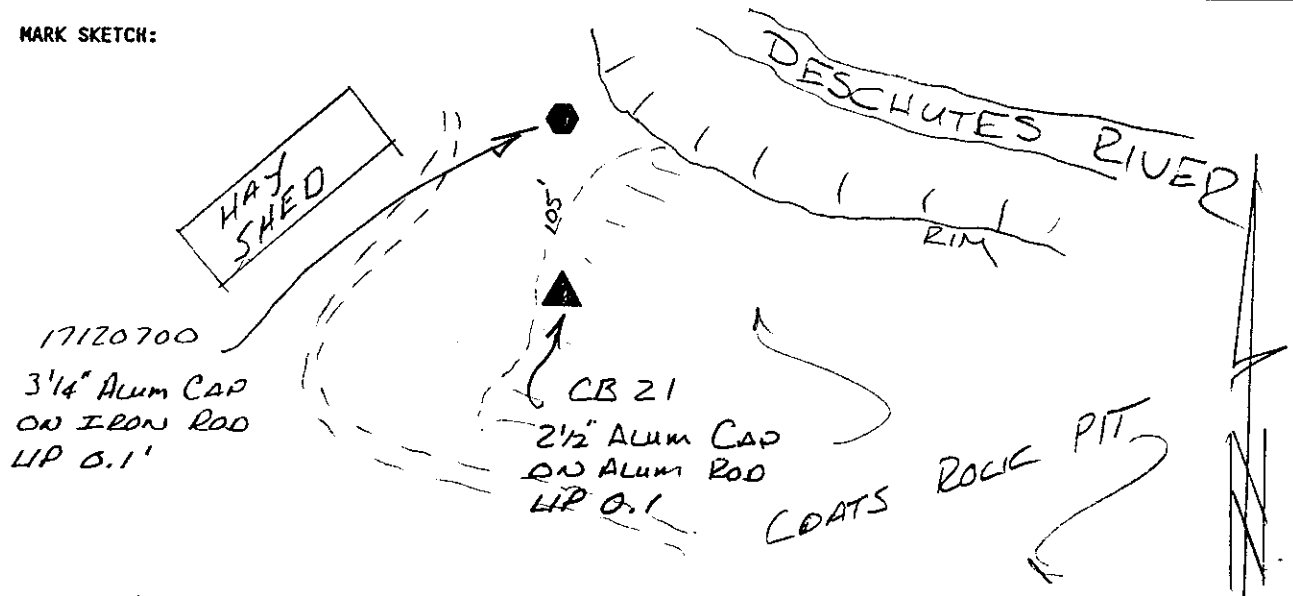
MARK: 17120640 HORIZONTAL ORDER: FIRST

Latitude:	44°07'51.537769"	ONE SIGMA ERROR
Longitude:	121°20'36.099675"	
Northing:	412330.3598	0.013
Easting:	3284236.3637	0.013
Convergence:	-0°02'30.4705"	
Scale Factor:	1.000160283759	
Ellipsoid Height:	3275.2576	0.019
Orthometric Height:	3340.297	0.022
Geoid Height:	-65.0394	

## CONTROL MARK DATA

NAME OF MARK: 17120700 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 7 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 138

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

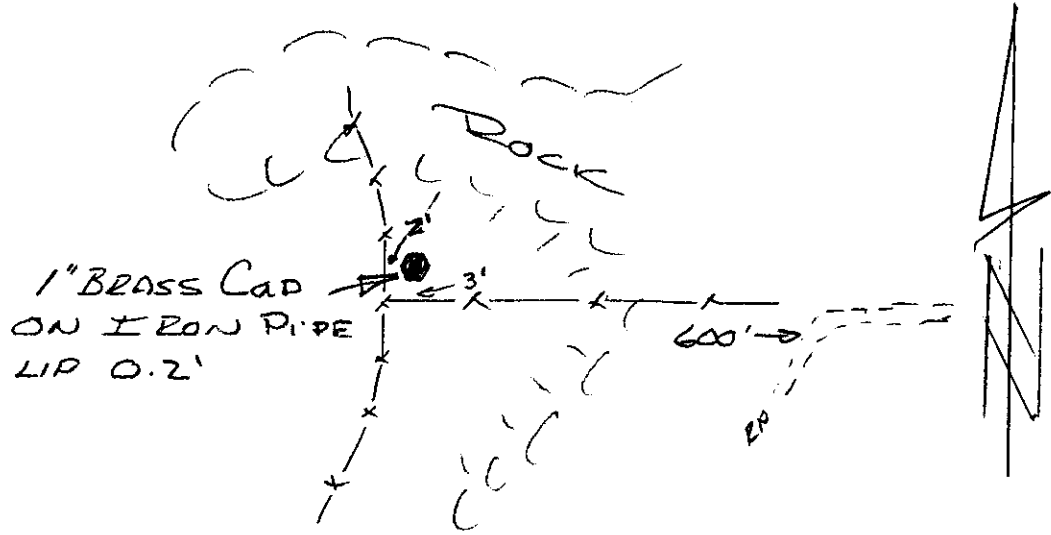
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17120700</u>	HORIZONTAL ORDER: <u>SECOND</u>	
Latitude:	44°06'33.514317"	ONE
Longitude:	121°20'36.185469"	SIGMA
Northing:	404428.1599	ERROR
Easting:	3284224.3395	0.026
Convergence:	-0°02'30.4715"	0.025
Scale Factor:	1.000160284193	
Ellipsoid Height:	3402.9617	0.028
Orthometric Height:	3467.7724	0.029
Geoid Height:	-64.8107	

## CONTROL MARK DATA

NAME OF MARK: 17120800 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 8 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 139

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

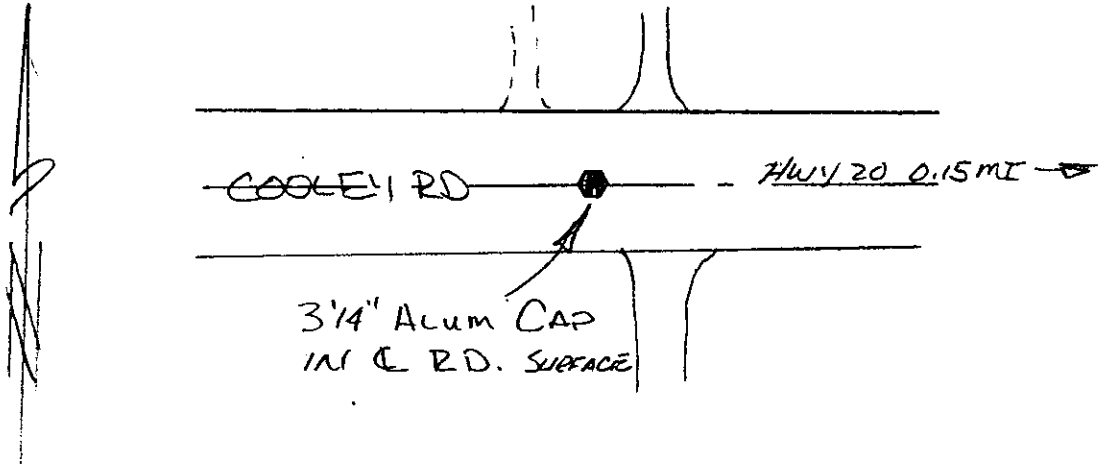
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17120800</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°06'33.104135"	ONE SIGMA ERROR
Longitude:	121°19'25.931024"	
Northing:	404383.4844	0.011
Easting:	3289350.9831	0.010
Convergence:	-0°01'41.5721"	
Scale Factor:	1.000160129496	
Ellipsoid Height:	3443.4068	0.014
Orthometric Height:	3508.2085	0.018
Geoid Height:	-64.8016	

## CONTROL MARK DATA

NAME OF MARK: 17120804 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 8 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 140

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

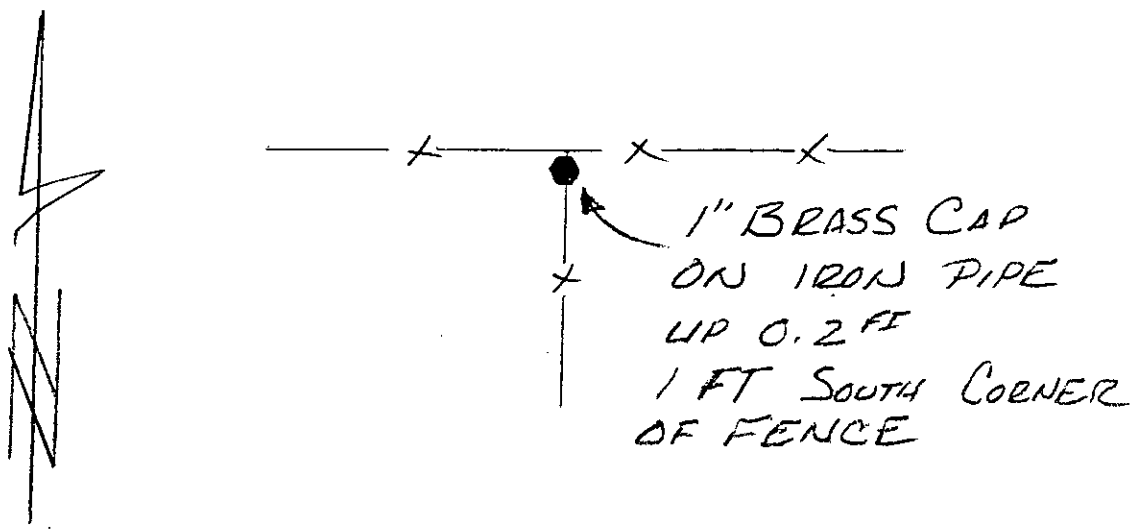
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17120804</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'33.086683"	ONE SIGMA ERROR
Longitude:	121°18'49.622567"	
Northing:	404380.5746	0.012
Easting:	3292000.5176	0.011
Convergence:	-0°01'16.3004"	
Scale Factor:	1.000160073074	
Ellipsoid Height:	3419.6491	0.015
Orthometric Height:	3484.4416	0.018
Geoid Height:	-64.7925	

## CONTROL MARK DATA

NAME OF MARK: 17120840 COUNTY: DESCHUTES  
 MARK SET BY: LS 0344 CHARLES REYNOLDS STATE: OREGON  
 DATE OF MARK: 6/15/65 COUNTRY: U.S.A.  
 LOCATION: SECTION 8 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR CS 4899

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

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DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

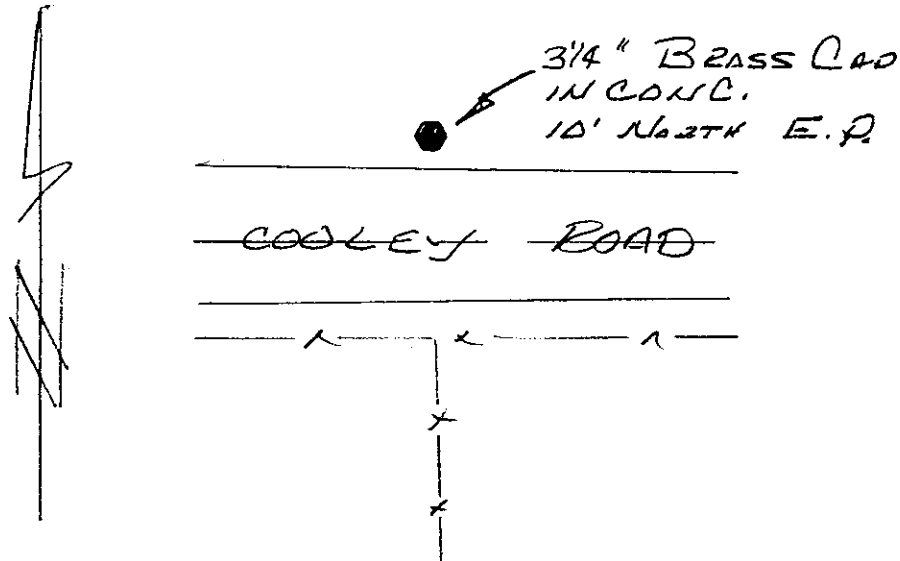
<u>MARK: 17120840</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°06'59.148271"	ONE SIGMA ERROR
Longitude:	121°19'25.873490"	
Northing:	407021.2256	0.011
Easting:	3289356.4801	0.011
Convergence:	-0°01'41.5453"	
Scale Factor:	1.000160129362	
Ellipsoid Height:	3405.659	0.015
Orthometric Height:	3470.5246	0.019
Geoid Height:	-64.8656	



**CONTROL MARK DATA**

NAME OF MARK: 17120900 COUNTY: DESCHUTES  
MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
DATE OF MARK: 9/21/91 COUNTRY: U.S.A.  
LOCATION: SECTION 9 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
REFERENCE NUMBER: OCRR 1112

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

**GEOIDIC AND MAPPING COORDINATES**

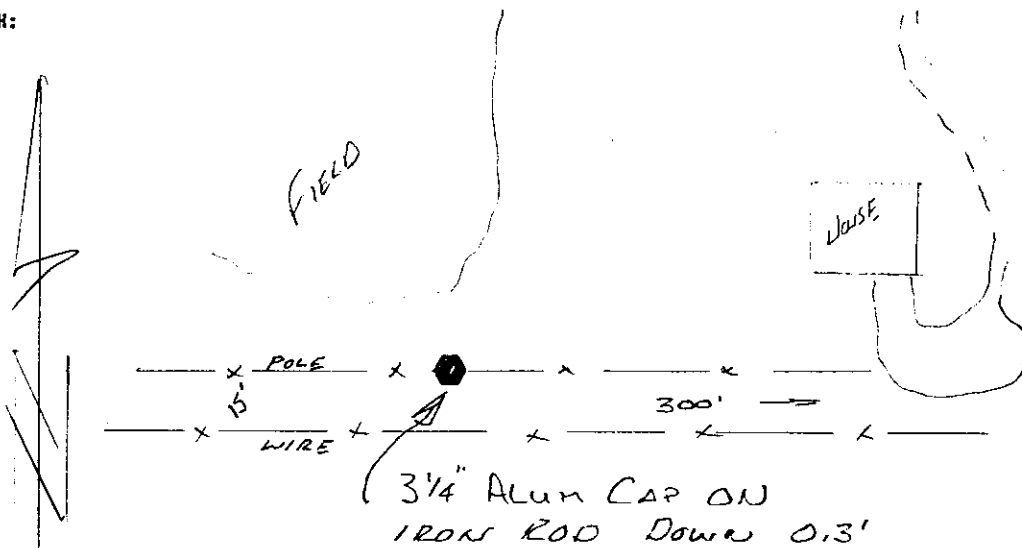
MARK: 17120900 HORIZONTAL ORDER: FIRST

Latitude:	44°06'33.100282"	ONE SIGMA ERROR
Longitude:	121°18'13.427649"	
Northing:	404381.1361	0.012
Easting:	3294641.768	0.011
Convergence:	-0°00'51.1077"	
Scale Factor:	1.000160032785	
Ellipsoid Height:	3423.8169	0.016
Orthometric Height:	3488.5968	0.017
Geoid Height:	-64.7799	

## CONTROL MARK DATA

NAME OF MARK: 17120940 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 9 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 135

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

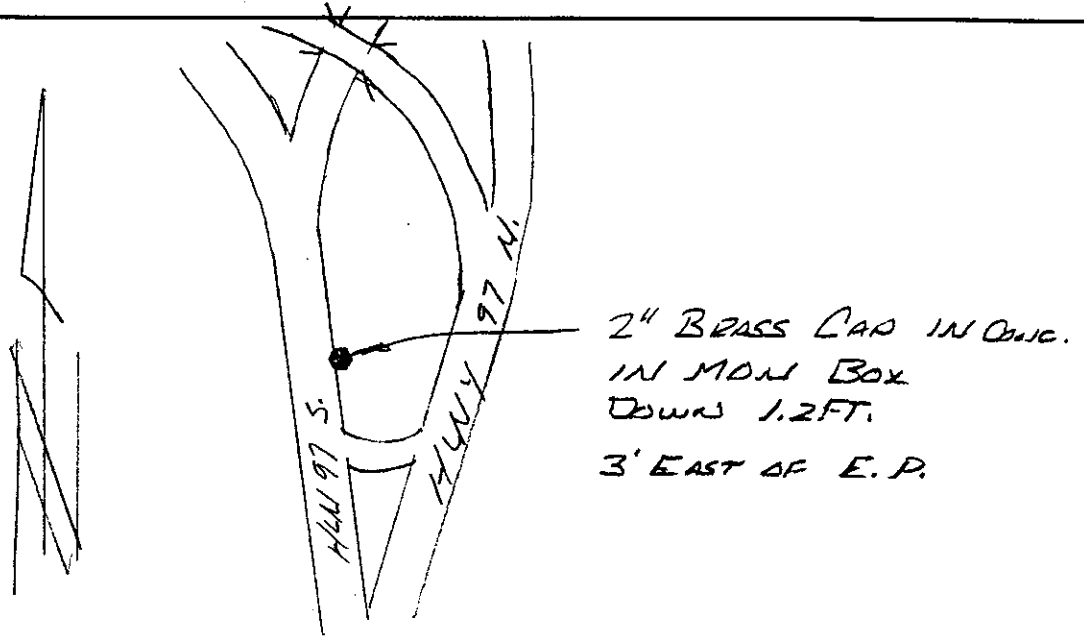
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17120940</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'59.193142"	ONE
Longitude:	121°18'13.407190"	SIGMA
Northing:	407023.8135	ERROR
Easting:	3294643.9156	0.009
Convergence:	-0°00'51.1001"	0.008
Scale Factor:	1.000160032759	
Ellipsoid Height:	3384.3789	0.012
Orthometric Height:	3449.2195	0.014
Geoid Height:	-64.8407	

### CONTROL MARK DATA

NAME OF MARK: 17121600 COUNTY: DESCHUTES  
MARK SET BY: OREGON STATE HIGHWAY STATE: OREGON  
DATE OF MARK: N/A COUNTRY: U.S.A.  
LOCATION: SECTION 16 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
REFERENCE NUMBER: OCRR 55,1054

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

#### GEOIDIC AND MAPPING COORDINATES

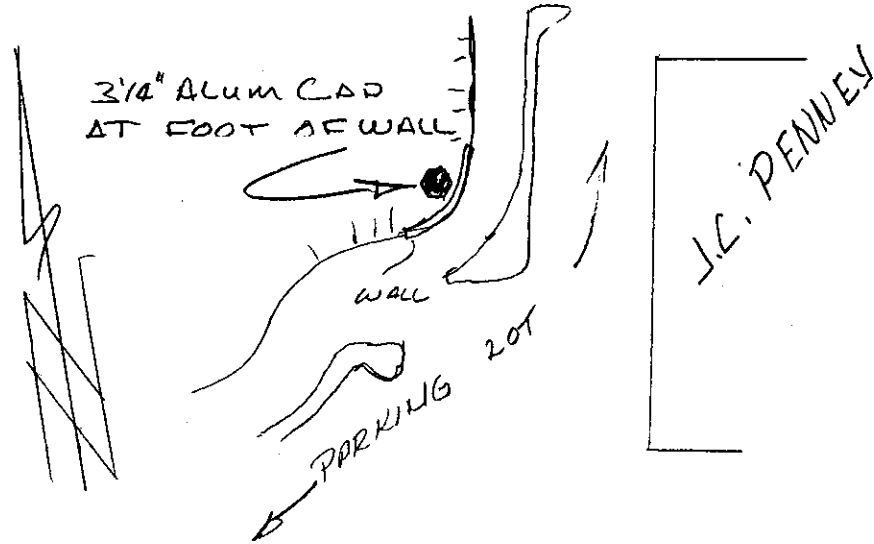
MARK: 17121600 HORIZONTAL ORDER: FIRST

Latitude:	44°05'40.934751"	ONE SIGMA ERROR
Longitude:	121°18'13.523249"	
Northing:	399097.837	0.012
Easting:	3294633.4811	0.011
Convergence:	-0°00'51.1609"	
Scale Factor:	1.000160032887	
Ellipsoid Height:	3459.7858	0.027
Orthometric Height:	3524.4469	0.028
Geoid Height:	-64.6611	

### CONTROL MARK DATA

NAME OF MARK: 17121640 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 16 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 149

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

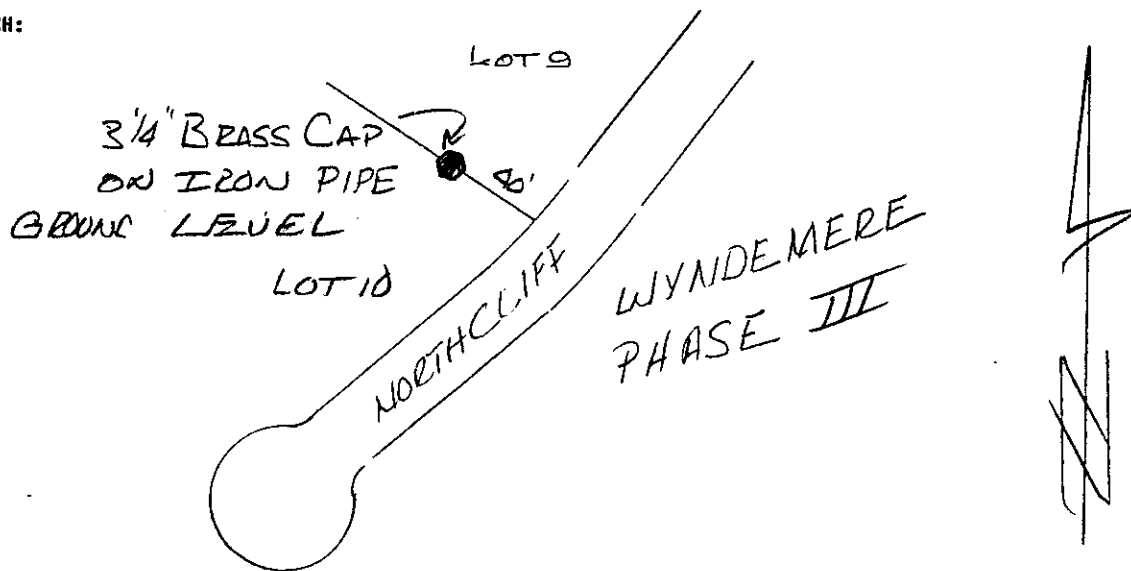
GEODITIC AND MAPPING COORDINATES

<u>MARK: 17121640</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°06'07.041504"	ONE SIGMA ERROR
Longitude:	121°18'13.403471"	
Northing:	401741.913	0.014
Easting:	3294642.8787	0.013
Convergence:	-0°00'51.0842"	
Scale Factor:	1.000160032772	
Ellipsoid Height:	3439.244	0.025
Orthometric Height:	3503.9626	0.025
Geoid Height:	-64.7186	

## CONTROL MARK DATA

NAME OF MARK: 17121700 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 3/02/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 17 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1118

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

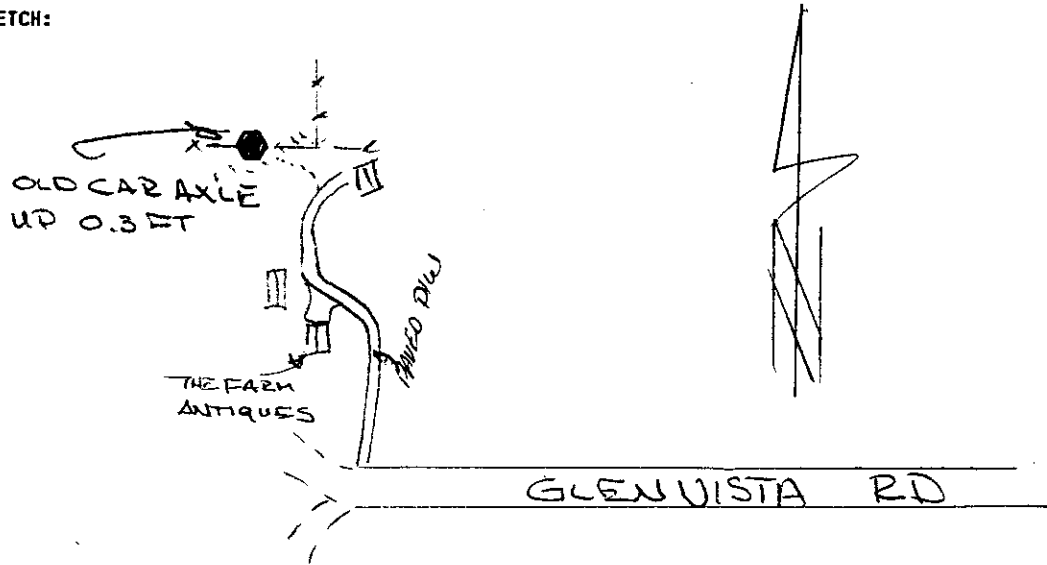
### GEODITIC AND MAPPING COORDINATES

<u>MARK:</u> <u>17121700</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°05'41.320251"	ONE SIGMA ERROR
Longitude:	121°19'26.007685"	
Northing:	399138.8393	0.012
Easting:	3289342.8052	0.011
Convergence:	-0°01'41.5991"	
Scale Factor:	1.000160129696	
Ellipsoid Height:	3470.5234	0.017
Orthometric Height:	3535.201	0.020
Geoid Height:	-64.6775	

## CONTROL MARK DATA

NAME OF MARK: 17121740 COUNTY: DESCHUTES  
 MARK SET BY: PE 0632 R. B. GOULD STATE: OREGON  
 DATE OF MARK: 1930+- COUNTRY: U.S.A.  
 LOCATION: SECTION 17 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 103

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

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DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

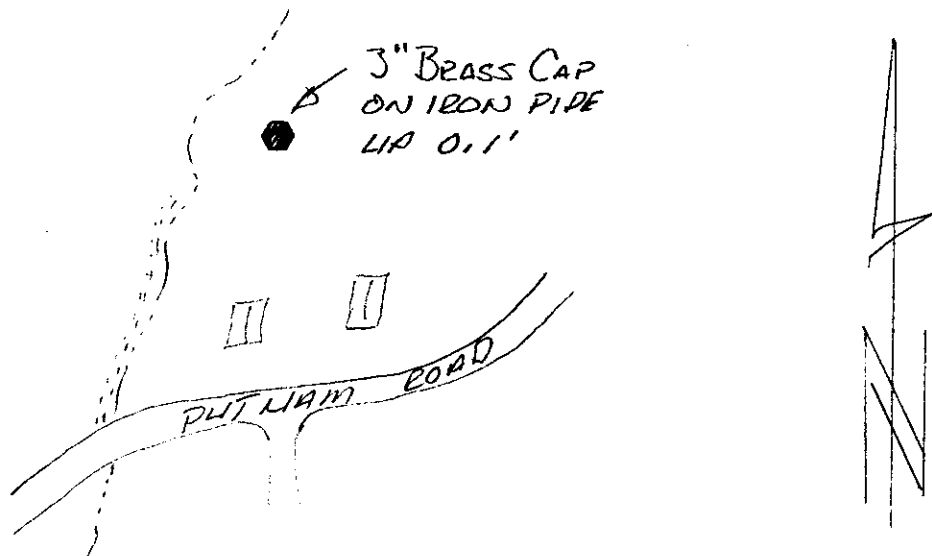
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17121740</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'07.102645"	ONE SIGMA ERROR
Longitude:	121°19'25.929889"	
Northing:	401750.0638	0.014
Easting:	3289349.7693	0.013
Convergence:	-0°01'41.5581"	
Scale Factor:	1.000160129526	
Ellipsoid Height:	3451.0902	0.021
Orthometric Height:	3515.829	0.023
Geoid Height:	-64.7388	

## CONTROL MARK DATA

NAME OF MARK: 17121800 COUNTY: DESCHUTES  
 MARK SET BY: LS 0599 JAMES BUSSARD STATE: OREGON  
 DATE OF MARK: 1972 COUNTRY: U.S.A.  
 LOCATION: SECTION 18 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 4901

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

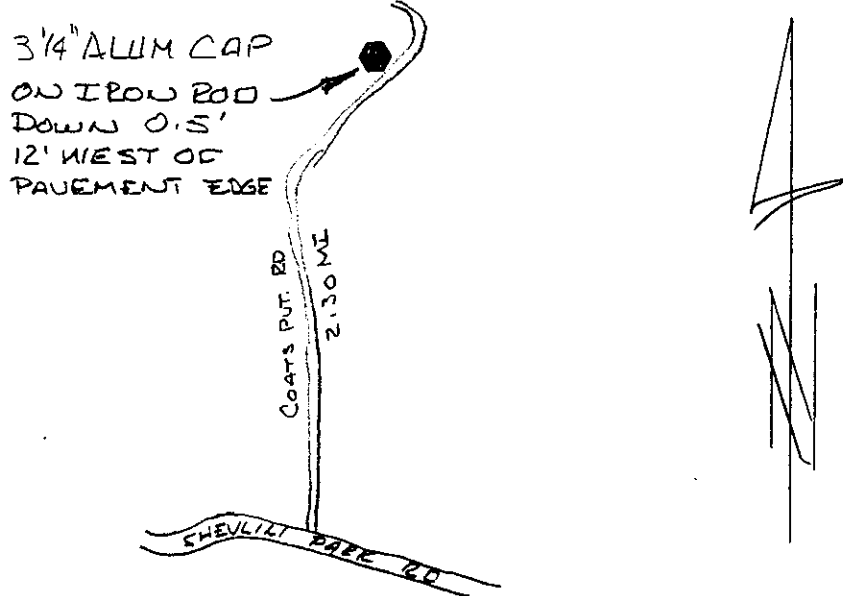
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17121800</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°05'41.599031"	ONE SIGMA ERROR
Longitude:	121°20'36.836981"	
Northing:	399170.2382	0.013
Easting:	3284172.95	0.012
Convergence:	-0°02'30.8858"	
Scale Factor:	1.000160286049	
Ellipsoid Height:	3351.5295	0.018
Orthometric Height:	3416.2083	0.021
Geoid Height:	-64.6787	

## CONTROL MARK DATA

NAME OF MARK: 17121840 COUNTY: DESCHUTES  
 MARK SET BY: LS 1020 GEORGE COLVIN STATE: OREGON  
 DATE OF MARK: 3/20/87 COUNTRY: U.S.A.  
 LOCATION: SECTION 18 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 148

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

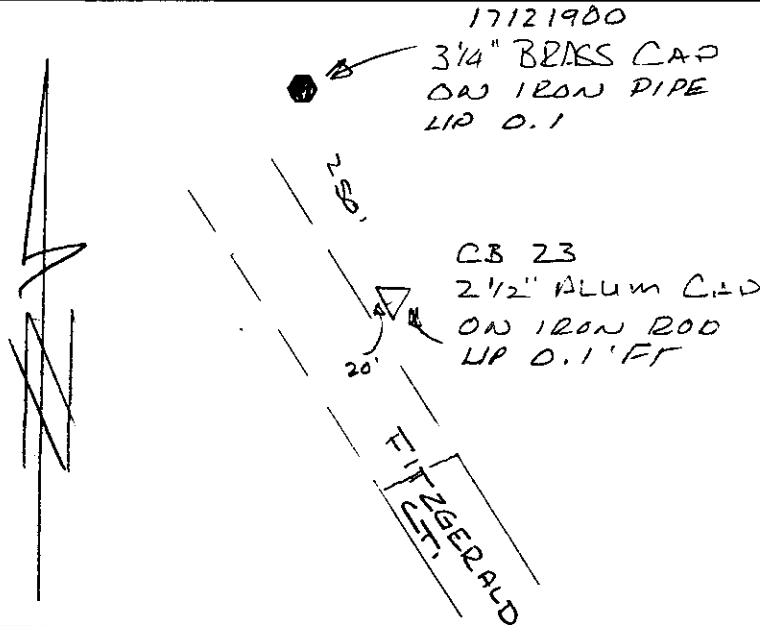
<u>MARK:</u> <u>17121840</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'07.559472"	ONE SIGMA ERROR
Longitude:	121°20'36.507841"	
Northing:	401799.4805	0.014
Easting:	3284198.8947	0.013
Convergence:	-0°02'30.6763"	
Scale Factor:	1.000160285111	
Ellipsoid Height:	3436.148	0.019
Orthometric Height:	3500.8924	0.022
Geoid Height:	-64.7443	



## CONTROL MARK DATA

NAME OF MARK: 17121900 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 3/02/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 19 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1122

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91). CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

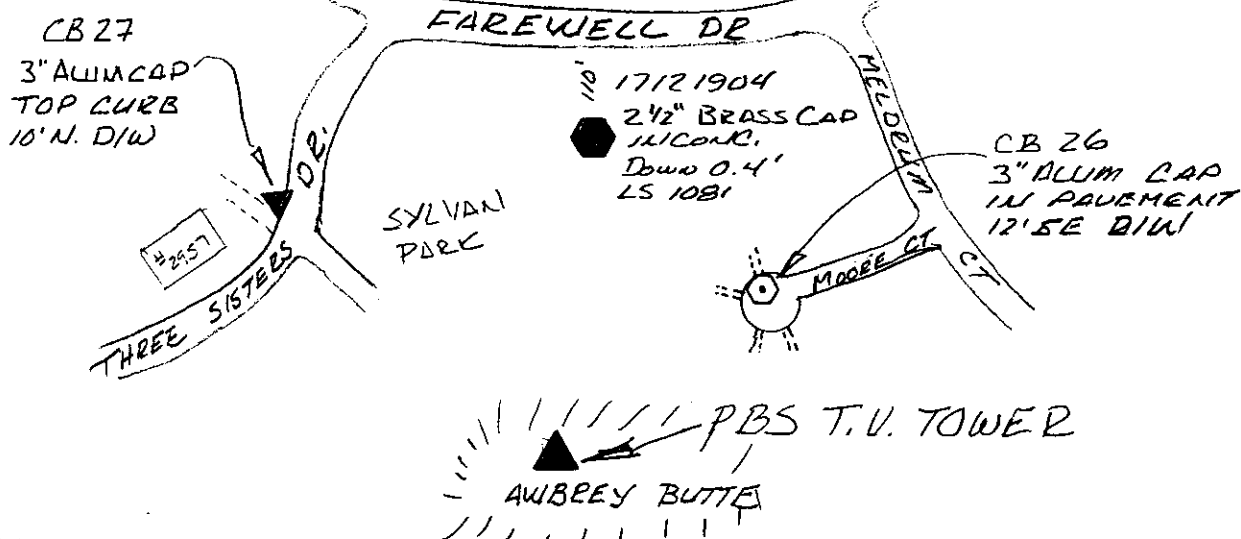
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17121900</u>	HORIZONTAL ORDER: <u>SECOND</u>	
Latitude:	44°04'49.607155"	ONE
Longitude:	121°20'36.088373"	SIGMA
Northing:	393904.4983	ERROR
Easting:	3284223.7532	0.027
Convergence:	-0°02'30.3257"	0.026
Scale Factor:	1.000160284216	
Ellipsoid Height:	3831.4647	0.031
Orthometric Height:	3896.0132	0.033
Geoid Height:	-64.5485	

## CONTROL MARK DATA

NAME OF MARK: 17121904 COUNTY: DESCHUTES  
 MARK SET BY: LS 0599 JAMES BUSSARD STATE: OREGON  
 DATE OF MARK: 7/9/72 COUNTRY: U.S.A.  
 LOCATION: SECTION 19 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 4901

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

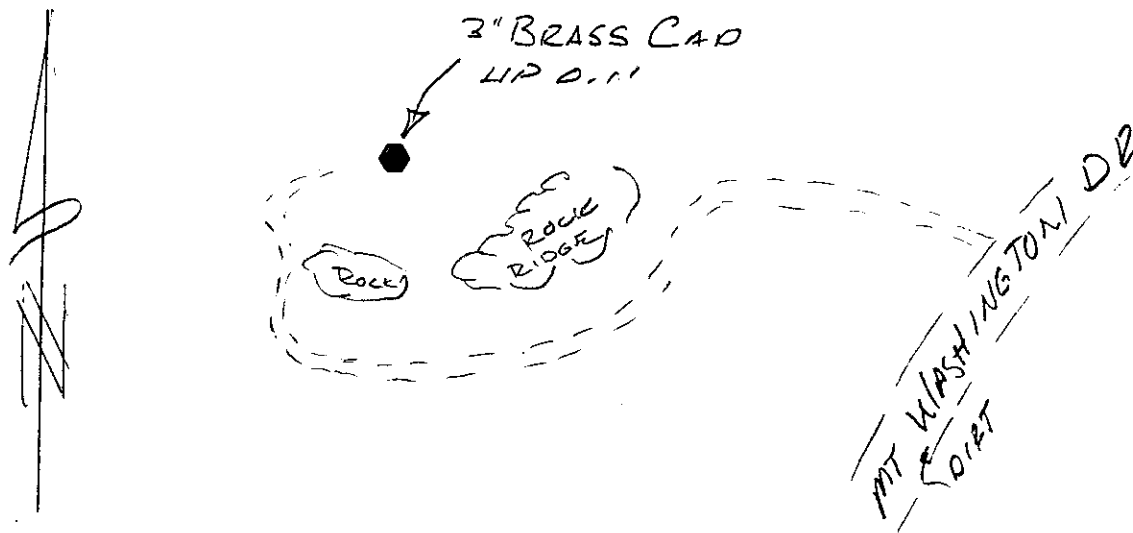
GEODITIC AND MAPPING COORDINATES

<u>MARK: 17121904</u>	HORIZONTAL ORDER: <u>SECOND</u>	
Latitude:	44°04'49.254450"	ONE SIGMA ERROR
Longitude:	121°20'02.350092"	
Northing:	393867.1215	0.023
Easting:	3286686.9062	0.023
Convergence:	-0°02'06.8549"	
Scale Factor:	1.000160202395	
Ellipsoid Height:	4055.2505	0.028
Orthometric Height:	4119.805	0.030
Geoid Height:	-64.5544	

### CONTROL MARK DATA

NAME OF MARK: 17121940 COUNTY: DESCHUTES  
 MARK SET BY: LS 0599 JAMES BUSSARD STATE: OREGON  
 DATE OF MARK: 9/7/72 COUNTRY: U.S.A.  
 LOCATION: SECTION 19 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 4901

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

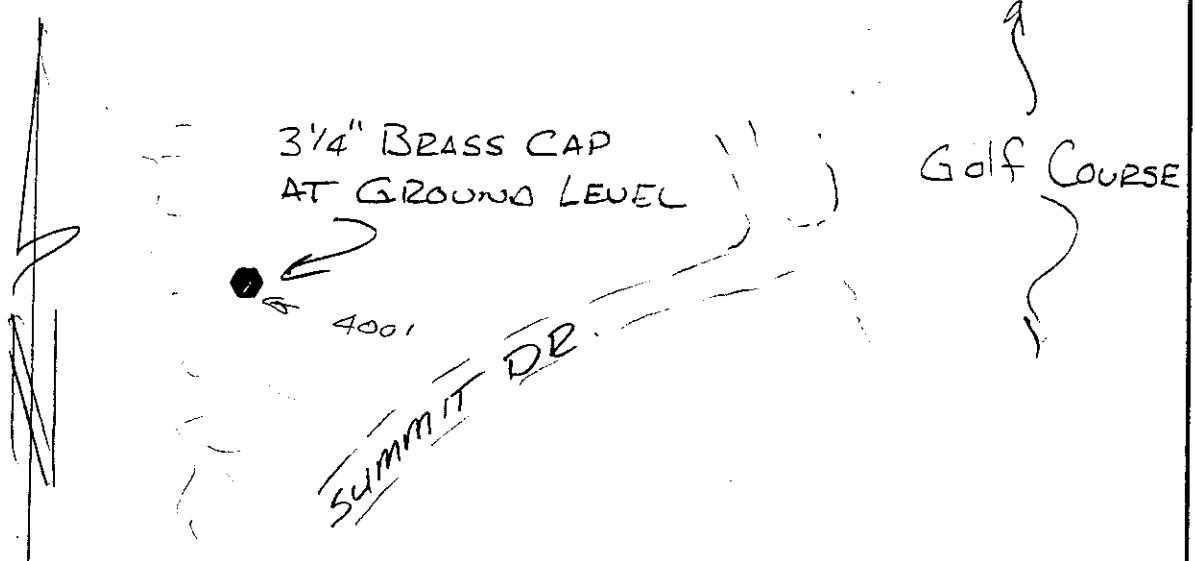
#### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17121940</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°05'15.638107"	ONE SIGMA ERROR
Longitude:	121°20'36.328731"	
Northing:	396540.9056	0.015
Easting:	3284208.1287	0.013
Convergence:	-0°02'30.5125"	
Scale Factor:	1.000160284779	
Ellipsoid Height:	3691.8836	0.021
Orthometric Height:	3756.4973	0.024
Geoid Height:	-64.6137	

### CONTROL MARK DATA

NAME OF MARK: 17122000 COUNTY: DESCHUTES  
MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
DATE OF MARK: 8/21/91 COUNTRY: U.S.A.  
LOCATION: SECTION 20 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
REFERENCE NUMBER: OCRR 1087

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

#### GEOIDIC AND MAPPING COORDINATES

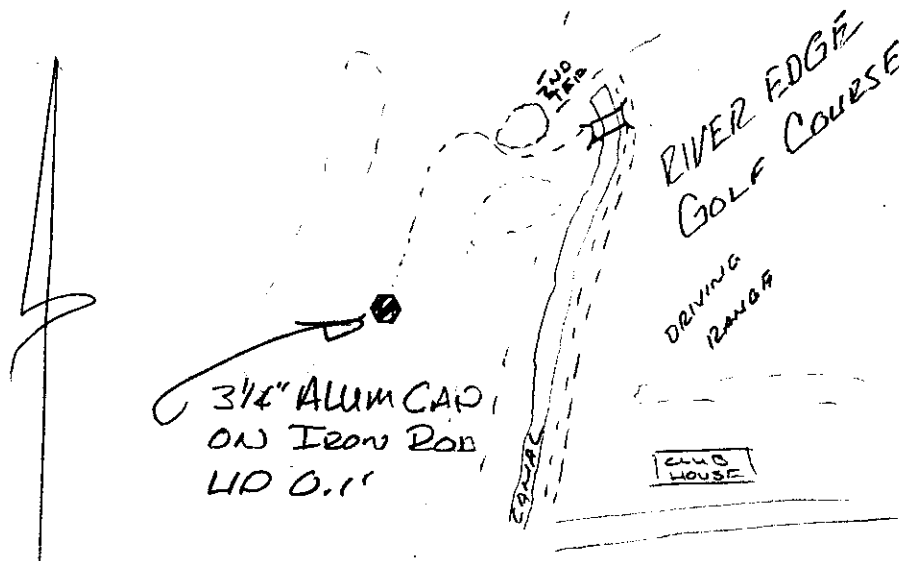
MARK: 17122000 HORIZONTAL ORDER: FIRST

Latitude:	44°04'49.213222"	ONE SIGMA ERROR
Longitude:	121°19'26.232453"	
Northing:	393861.4849	0.013
Easting:	3289323.7962	0.012
Convergence:	-0°01'41.7290"	
Scale Factor:	1.000160130159	
Ellipsoid Height:	3937.7953	0.020
Orthometric Height:	4002.3495	0.022
Geoid Height:	-64.5542	

## CONTROL MARK DATA

NAME OF MARK: 17122004 COUNTY: DESCHUTES  
 MARK SET BY: LS 0702 RAYMOND OMAN STATE: OREGON  
 DATE OF MARK: 11/14/88 COUNTRY: U.S.A.  
 LOCATION: SECTION 20 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 891

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

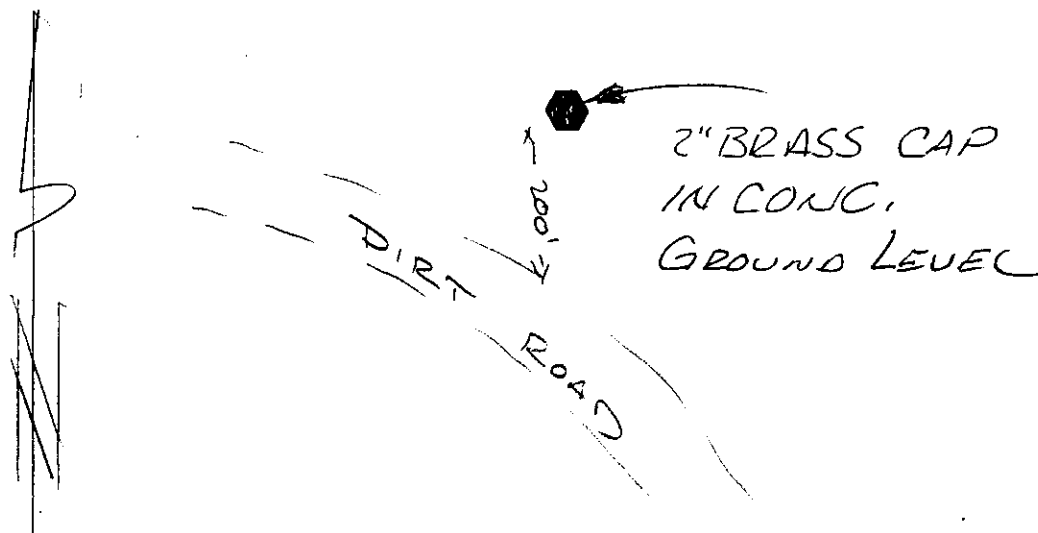
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17122004</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°04'49.153121"	ONE SIGMA ERROR
Longitude:	121°18'50.268662"	
Northing:	393854.2621	0.014
Easting:	3291949.4544	0.013
Convergence:	-0°01'16.7102"	
Scale Factor:	1.000160074010	
Ellipsoid Height:	3621.5668	0.021
Orthometric Height:	3686.1204	0.022
Geoid Height:	-64.5536	

## CONTROL MARK DATA

NAME OF MARK: 17122040 COUNTY: DESCHUTES  
 MARK SET BY: LS 1031 W. C. KAUFFMAN STATE: OREGON  
 DATE OF MARK: 6/76 COUNTRY: U.S.A.  
 LOCATION: SECTION 20 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1057

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

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DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

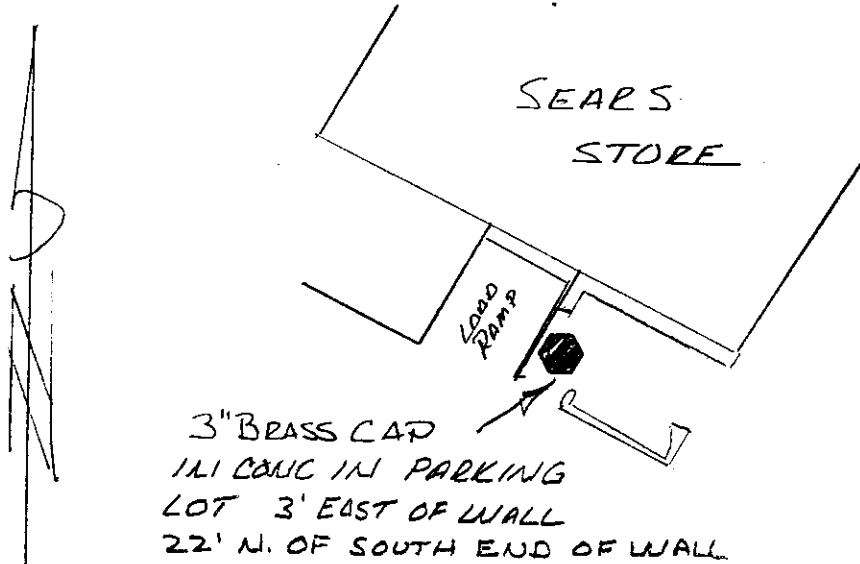
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17122040</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°05'15.227457"	ONE SIGMA ERROR
Longitude:	121°19'26.083682"	
Northing:	396496.1809	0.018
Easting:	3289335.9559	0.017
Convergence:	-0°01'41.6387"	
Scale Factor:	1.000160129863	
Ellipsoid Height:	3730.0638	0.025
Orthometric Height:	3794.6798	0.027
Geoid Height:	-64.616	

## CONTROL MARK DATA

NAME OF MARK: 17122100 COUNTY: DESCHUTES  
 MARK SET BY: CENTURY WEST ENG. CORP. STATE: OREGON  
 DATE OF MARK: 1979/198 COUNTRY: U.S.A.  
 LOCATION: SECTION 21 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

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DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

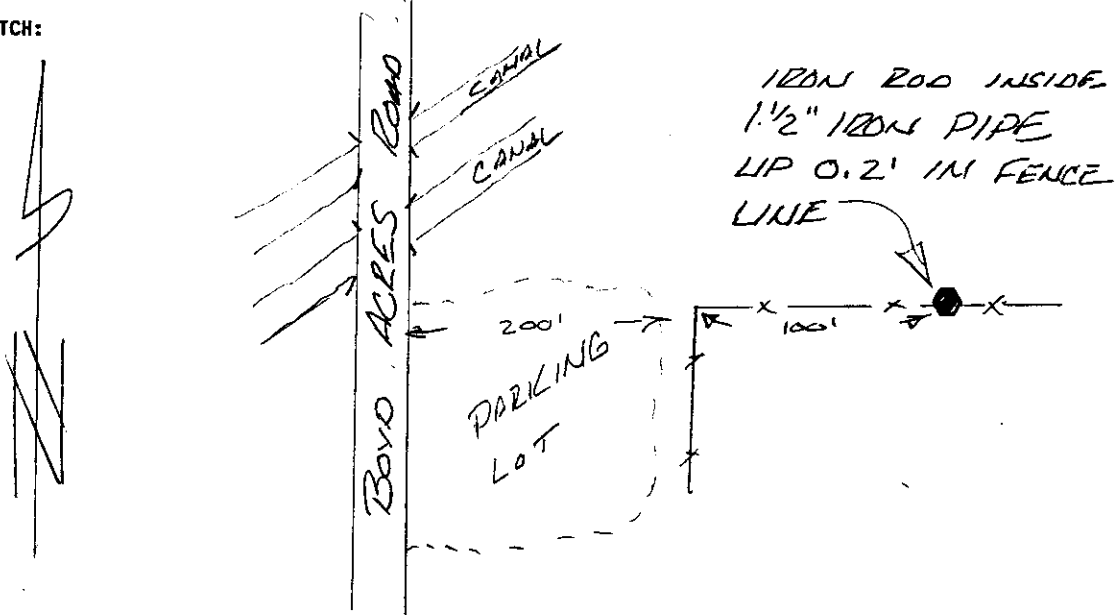
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17122100</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°04'48.737167"	ONE SIGMA ERROR
Longitude:	121°18'13.889621"	
Northing:	393811.3099	0.011
Easting:	3294605.4218	0.011
Convergence:	-0°00'51.4024"	
Scale Factor:	1.000160033232	
Ellipsoid Height:	3477.8992	0.017
Orthometric Height:	3542.4477	0.017
Geoid Height:	-64.5484	

## CONTROL MARK DATA

NAME OF MARK: 17122104 COUNTY: DESCHUTES  
 MARK SET BY: N/A STATE: OREGON  
 DATE OF MARK: N/A COUNTRY: U.S.A.  
 LOCATION: SECTION 21 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

MARK: 17122104 HORIZONTAL ORDER: FIRST

Latitude:	44°04'48.683595"	ONE SIGMA ERROR
Longitude:	121°17'37.498836"	
Northing:	393805.3851	0.014
Easting:	3297262.2616	0.013
Convergence:	-0°00'26.0866"	
Scale Factor:	1.000160008559	
Ellipsoid Height:	3499.7246	0.018
Orthometric Height:	3564.2602	0.019
Geoid Height:	-64.5356	

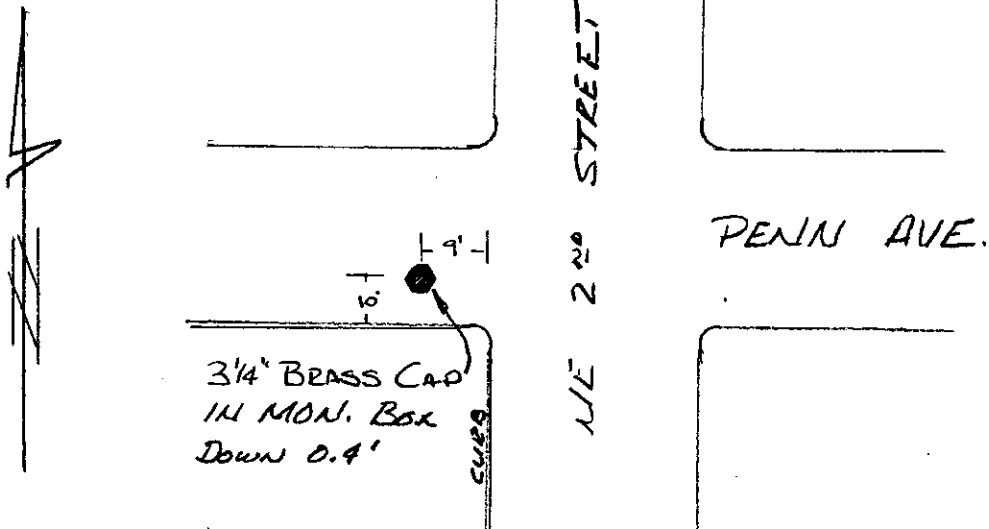




## CONTROL MARK DATA

NAME OF MARK: 17122800 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 3/02/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 28 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1117

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

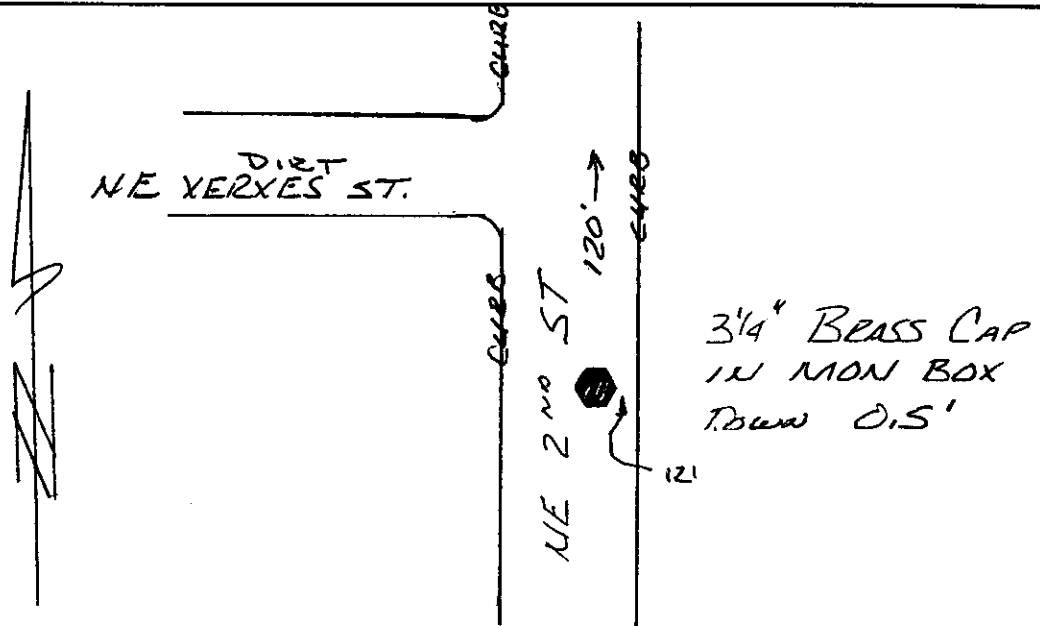
MARK: 17122800 HORIZONTAL ORDER: FIRST

Latitude:	44°03'57.294227"	ONE SIGMA ERROR
Longitude:	121°18'14.428042"	
Northing:	388601.229	0.010
Easting:	3294564.8047	0.010
Convergence:	-0°00'51.7636"	
Scale Factor:	1.000160033734	
Ellipsoid Height:	3542.9344	0.016
Orthometric Height:	3607.3608	0.016
Geoid Height:	-64.4264	

## CONTROL MARK DATA

NAME OF MARK: 17122840 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 7/11/91 COUNTRY: U.S.A.  
 LOCATION: SECTION 28 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1086

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

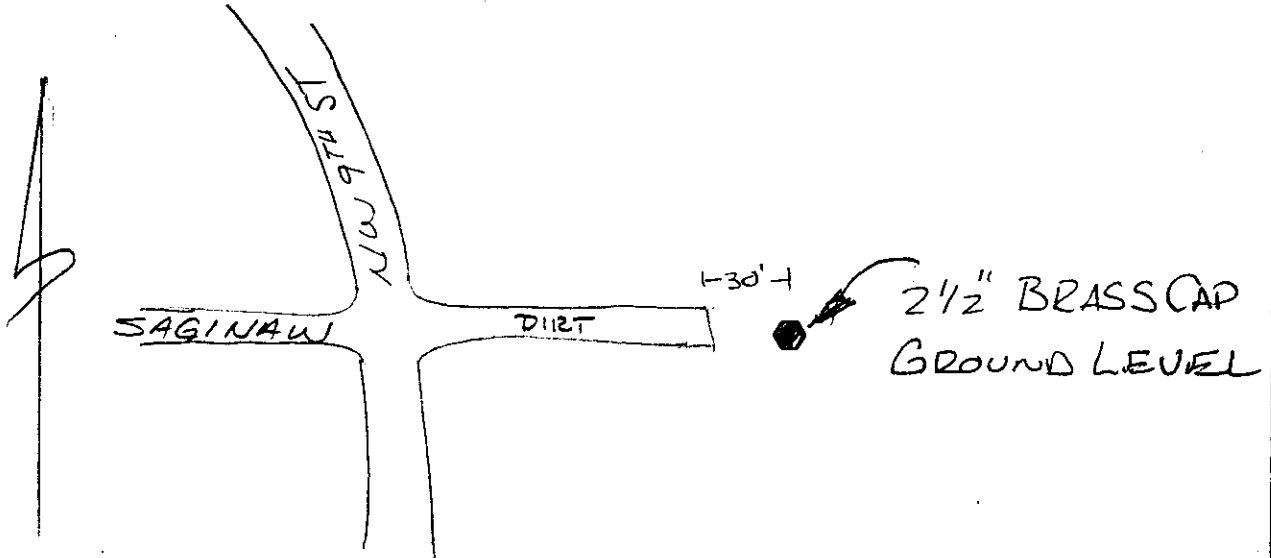
MARK: 17122840 HORIZONTAL ORDER: FIRST

		ONE SIGMA ERROR
Latitude:	44°04'23.342473"	
Longitude:	121°18'14.095951"	
Northing:	391239.3622	0.009
Easting:	3294589.7152	0.009
Convergence:	-0°00'51.5394"	
Scale Factor:	1.000160033426	
Ellipsoid Height:	3522.1286	0.012
Orthometric Height:	3586.6218	0.013
Geoid Height:	-64.4932	

## CONTROL MARK DATA

NAME OF MARK: 17122900 COUNTY: DESCHUTES  
 MARK SET BY: LS 0706 BRUCE ROGERS STATE: OREGON  
 DATE OF MARK: 7/8/1977 COUNTRY: U.S.A.  
 LOCATION: SECTION 29 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 02947

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

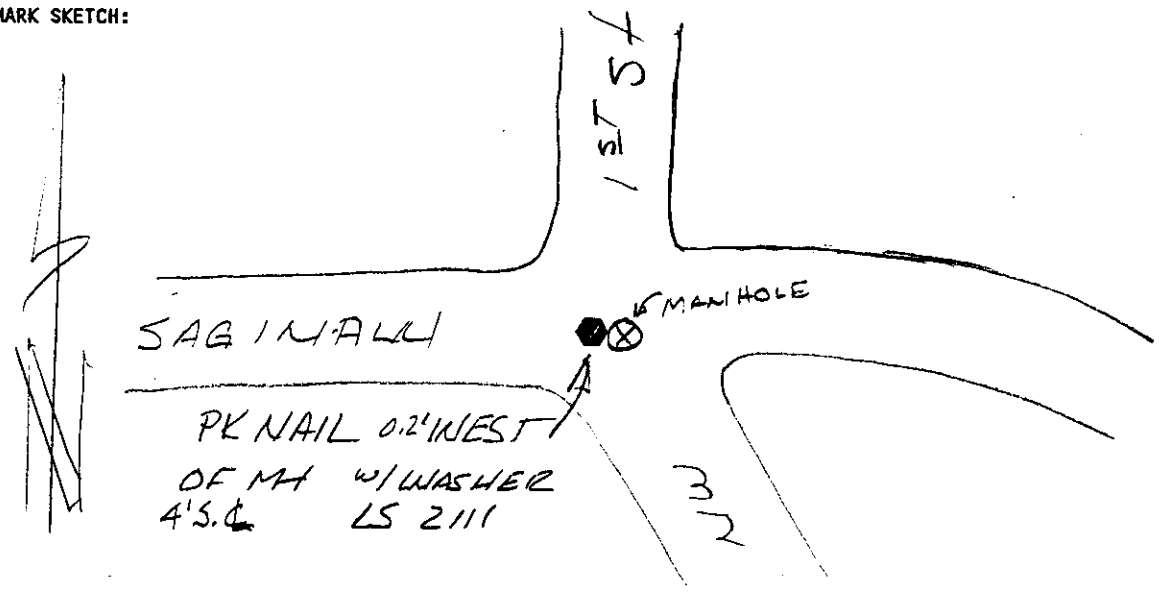
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17122900</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'57.258947"	ONE SIGMA ERROR
Longitude:	121°19'25.933789"	
Northing:	388599.5958	0.013
Easting:	3289343.0117	0.012
Convergence:	-0°01'41.4948"	
Scale Factor:	1.000160129692	
Ellipsoid Height:	3626.7087	0.019
Orthometric Height:	3691.136	0.021
Geoid Height:	-64.4273	

### CONTROL MARK DATA

NAME OF MARK: 17122904 COUNTY: DESCHUTES  
 MARK SET BY: N/A STATE: OREGON  
 DATE OF MARK: N/A COUNTRY: U.S.A.  
 LOCATION: SECTION 29 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

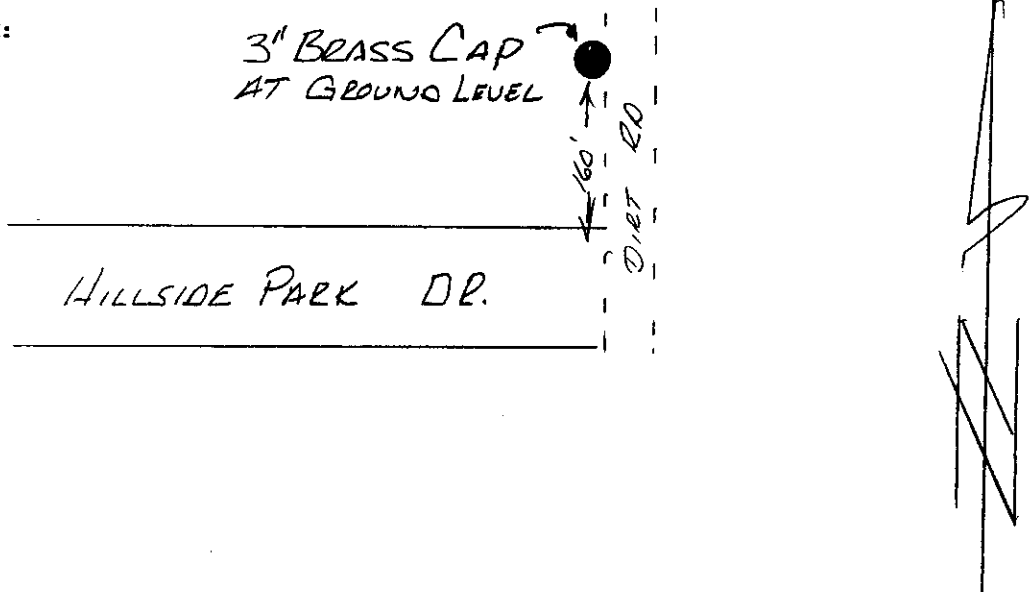
#### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17122904</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'57.303420"	ONE SIGMA ERROR
Longitude:	121°18'49.969472"	
Northing:	388602.9669	0.012
Easting:	3291969.3504	0.012
Convergence:	-0°01'16.4822"	
Scale Factor:	1.000160073645	
Ellipsoid Height:	3529.4807	0.018
Orthometric Height:	3593.9098	0.019
Geoid Height:	-64.4291	

### CONTROL MARK DATA

NAME OF MARK: 17122940 COUNTY: DESCHUTES  
 MARK SET BY: LS 0599 JAMES BUSSARD STATE: OREGON  
 DATE OF MARK: 1972 COUNTRY: U.S.A.  
 LOCATION: SECTION 29 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1082

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

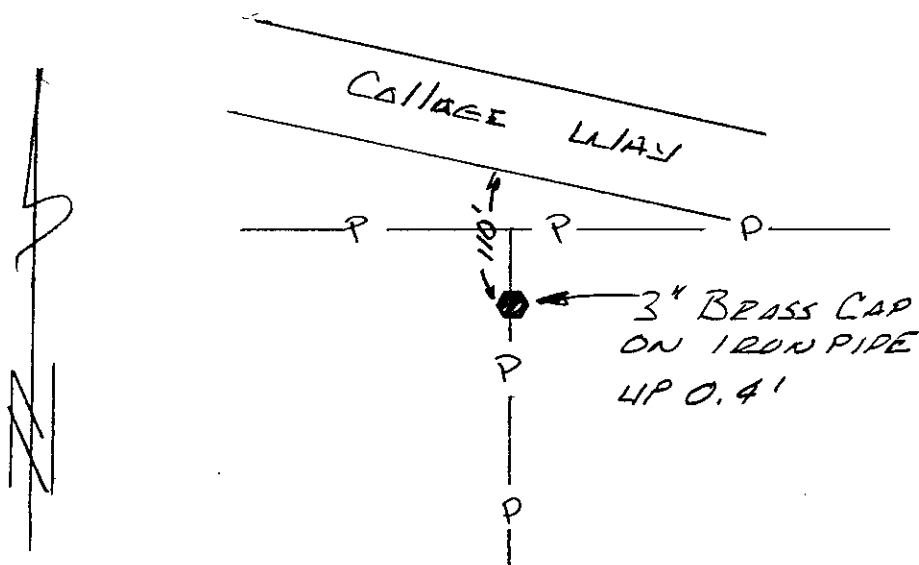
#### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17122940</u>	<u>HORIZONTAL ORDER: FIRST</u>	
Latitude:	44°04'23.171286"	ONE SIGMA ERROR
Longitude:	121°19'26.130135"	
Northing:	391223.9777	0.013
Easting:	3289329.9665	0.012
Convergence:	-0°01'41.6446"	
Scale Factor:	1.000160130009	
Ellipsoid Height:	3917.1973	0.018
Orthometric Height:	3981.6882	0.021
Geoid Height:	-64.4909	

## CONTROL MARK DATA

NAME OF MARK: 17123000 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. PUBLIC WORKS STATE: OREGON  
 DATE OF MARK: 1960+ COUNTRY: U.S.A.  
 LOCATION: SECTION 30 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

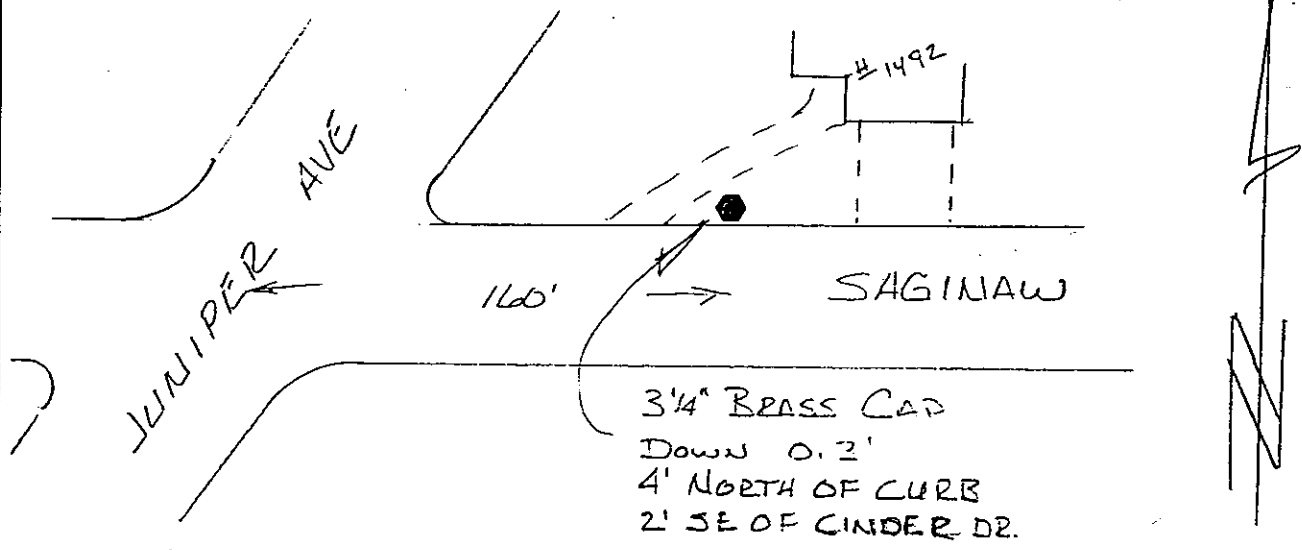
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17123000</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°03'57.485021"	ONE SIGMA ERROR
Longitude:	121°20'36.213178"	
Northing:	388625.6258	0.017
Easting:	3284210.7924	0.017
Convergence:	-0°02'30.3733"	
Scale Factor:	1.000160284684	
Ellipsoid Height:	3692.1706	0.027
Orthometric Height:	3756.5832	0.029
Geoid Height:	-64.4126	

## CONTROL MARK DATA

NAME OF MARK: 17123004 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1993 COUNTRY: U.S.A.  
 LOCATION: SECTION 30 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1211

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

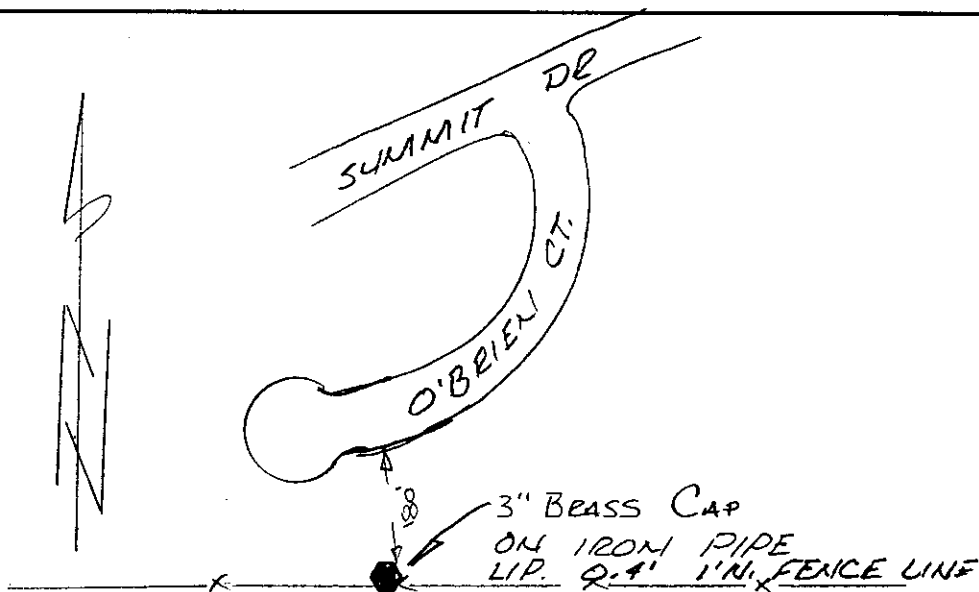
<u>MARK: 17123004</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'57.273039"	ONE SIGMA ERROR
Longitude:	121°20'02.139168"	
Northing:	388602.4854	0.013
Easting:	3286699.0717	0.012
Convergence:	-0°02'06.6751"	
Scale Factor:	1.000160202026	
Ellipsoid Height:	3712.1184	0.021
Orthometric Height:	3776.5408	0.023
Geoid Height:	-64.4224	



### CONTROL MARK DATA

NAME OF MARK: 17123040 COUNTY: DESCHUTES  
MARK SET BY: LS 0599 JAMES BUSSARD STATE: OREGON  
DATE OF MARK: 9/07/72 COUNTRY: U.S.A.  
LOCATION: SECTION 1 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
REFERENCE NUMBER: CS 4901

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

#### GEODITIC AND MAPPING COORDINATES

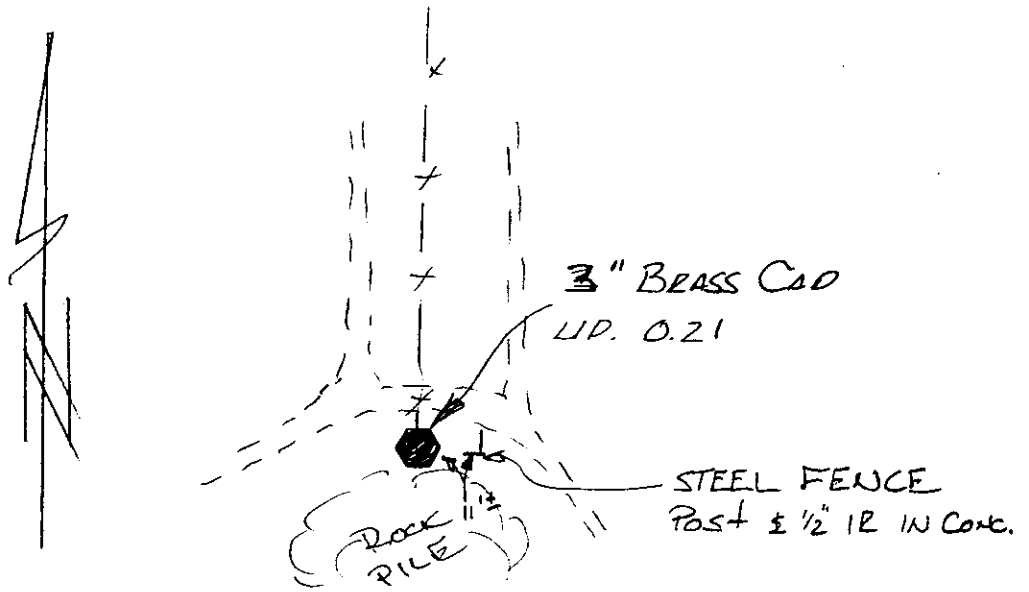
MARK: 17123040 HORIZONTAL ORDER: FIRST

Latitude:	44°04'23.547181"	ONE SIGMA ERROR
Longitude:	121°20'36.152985"	
Northing:	391265.1711	0.018
Easting:	3284217.112	0.017
Convergence:	-0°02'30.3511"	
Scale Factor:	1.000160284456	
Ellipsoid Height:	3936.7515	0.027
Orthometric Height:	4001.2295	0.030
Geoid Height:	-64.478	

## CONTROL MARK DATA

NAME OF MARK: 17123100 COUNTY: DESCHUTES  
 MARK SET BY: LS 1046 MICHAEL TYE STATE: OREGON  
 DATE OF MARK: 3/10/78 COUNTRY: U.S.A.  
 LOCATION: SECTION 31 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 359

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS  
 DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

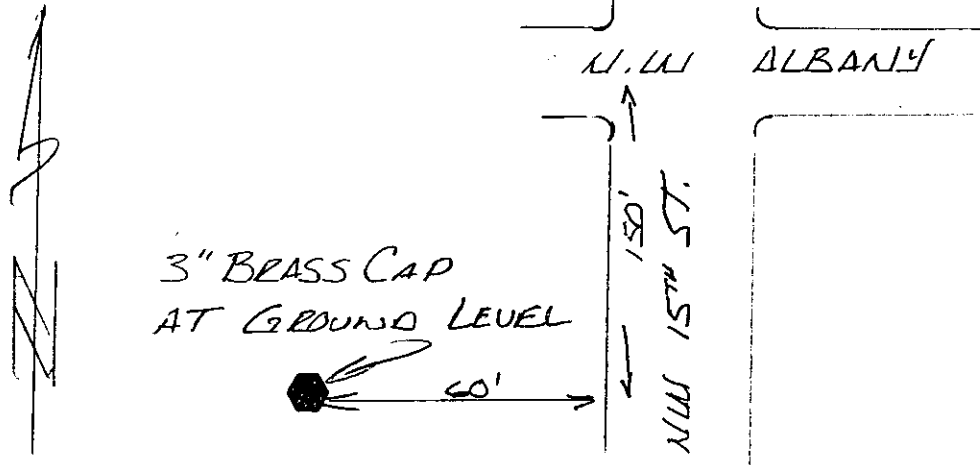
### GEODITIC AND MAPPING COORDINATES

MARK: <u>17123100</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'05.488468"	ONE SIGMA ERROR
Longitude:	121°20'36.333985"	
Northing:	383359.4853	0.012
Easting:	3284198.1295	0.011
Convergence:	-0°02'30.4181"	
Scale Factor:	1.000160285142	
Ellipsoid Height:	3756.0684	0.020
Orthometric Height:	3820.3519	0.023
Geoid Height:	-64.2835	

## CONTROL MARK DATA

NAME OF MARK: 17123104 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 7/12/91 COUNTRY: U.S.A.  
 LOCATION: SECTION 31 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1081

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

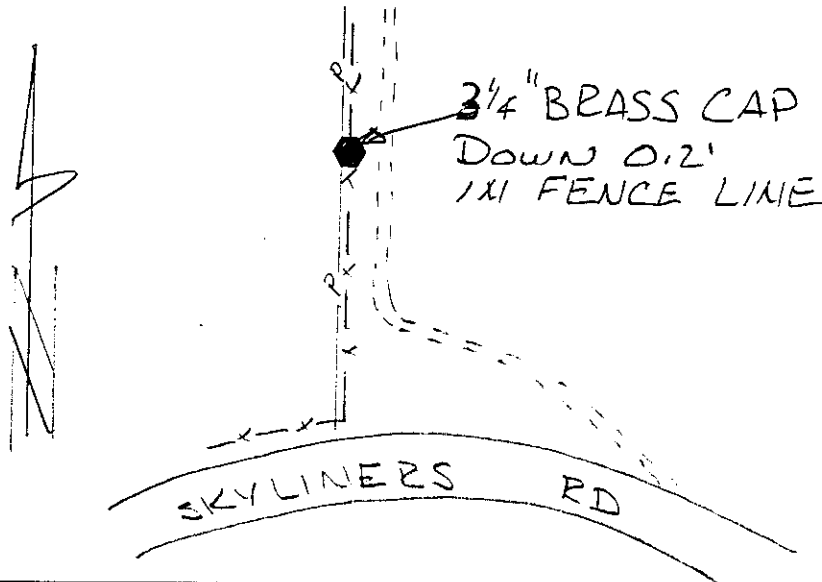
MARK: 17123104 HORIZONTAL ORDER: FIRST

Latitude:	44°03'05.291730"	ONE
Longitude:	121°20'02.058537"	SIGMA
Northing:	383337.8788	ERROR
Easting:	3286701.7285	0.015
Convergence:	-0°02'06.5861"	0.014
Scale Factor:	1.000160201946	
Ellipsoid Height:	3584.9348	0.022
Orthometric Height:	3649.2292	0.024
Geoid Height:	-64.2944	

## CONTROL MARK DATA

NAME OF MARK: 17123140 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 7/10/91 COUNTRY: U.S.A.  
 LOCATION: SECTION 31 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1083

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

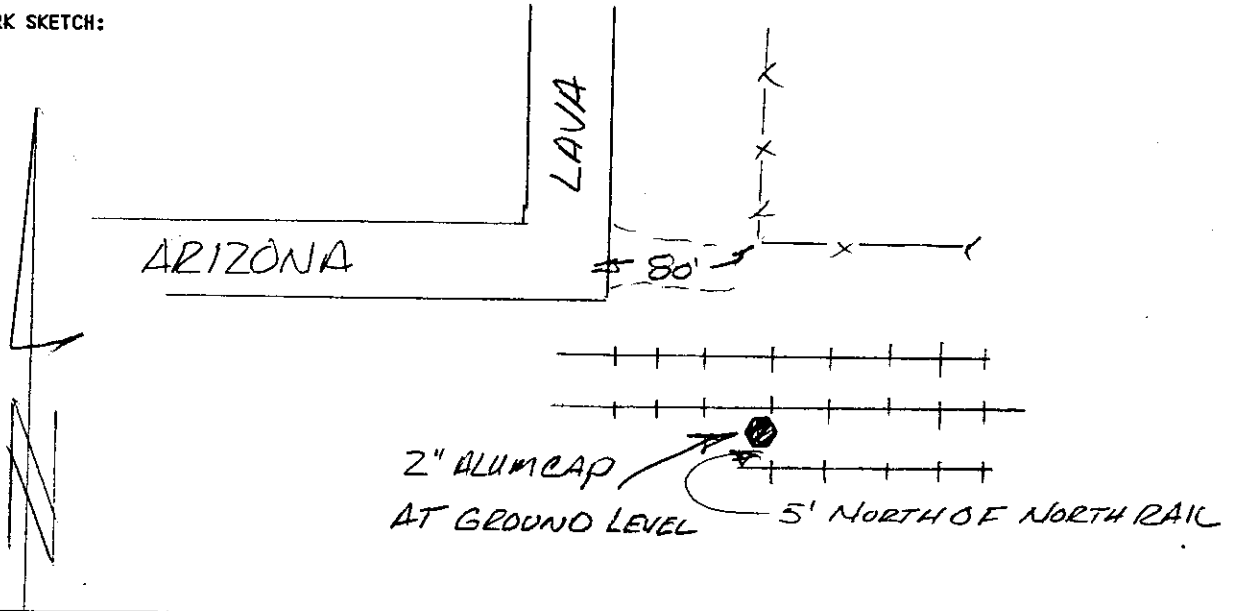
MARK: 17123140 HORIZONTAL ORDER: FIRST

Latitude:	44°03'31.497192"	ONE
Longitude:	121°20'36.227810"	SIGMA
		ERROR
Northing:	385993.6095	0.015
Easting:	3284207.8051	0.014
Convergence:	-0°02'30.3639"	
Scale Factor:	1.000160284793	
Ellipsoid Height:	3609.7919	0.024
Orthometric Height:	3674.1398	0.027
Geoid Height:	-64.3479	

## CONTROL MARK DATA

NAME OF MARK: 17123204 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. PUBLIC WORKS STATE: OREGON  
 DATE OF MARK: 1/12/198 COUNTRY: U.S.A.  
 LOCATION: SECTION 32 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: CS 03743

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

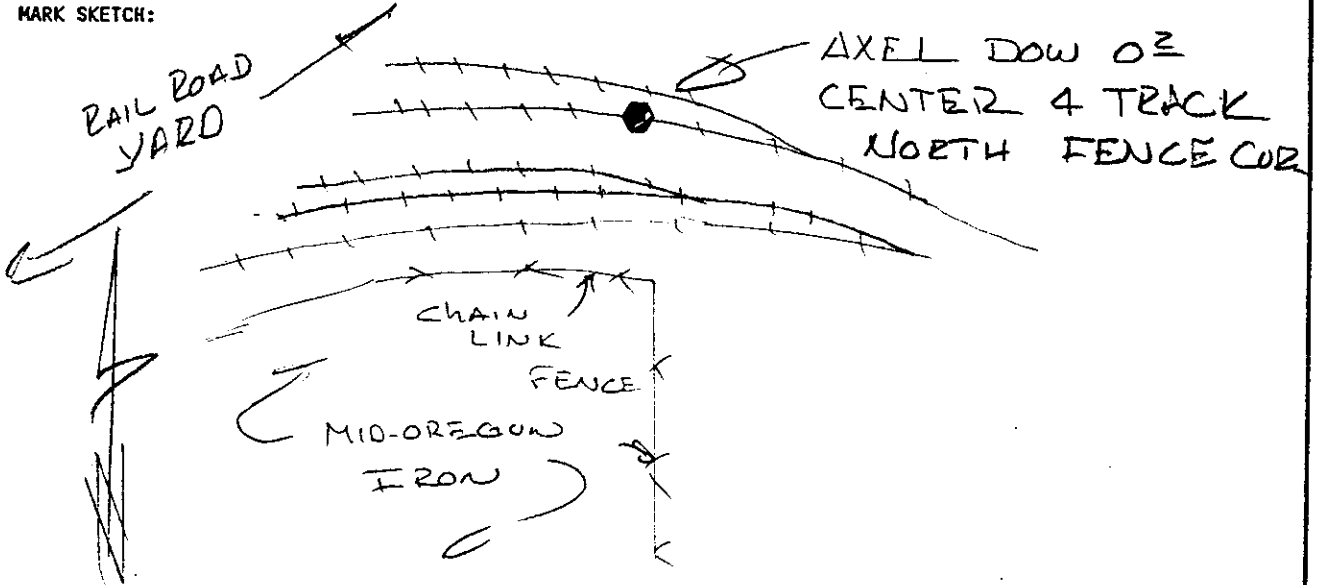
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17123204</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'05.133138"	ONE SIGMA ERROR
Longitude:	121°18'49.902317"	
Northing:	383319.2232	0.014
Easting:	3291972.2967	0.014
Convergence:	-0°01'16.4155"	
Scale Factor:	1.000160073591	
Ellipsoid Height:	3559.7508	0.020
Orthometric Height:	3624.0529	0.020
Geoid Height:	-64.302	

## CONTROL MARK DATA

NAME OF MARK: 17123300 COUNTY: DESCHUTES  
 MARK SET BY: PE 0632 R. B. GOULD STATE: OREGON  
 DATE OF MARK: N/A COUNTRY: U.S.A.  
 LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

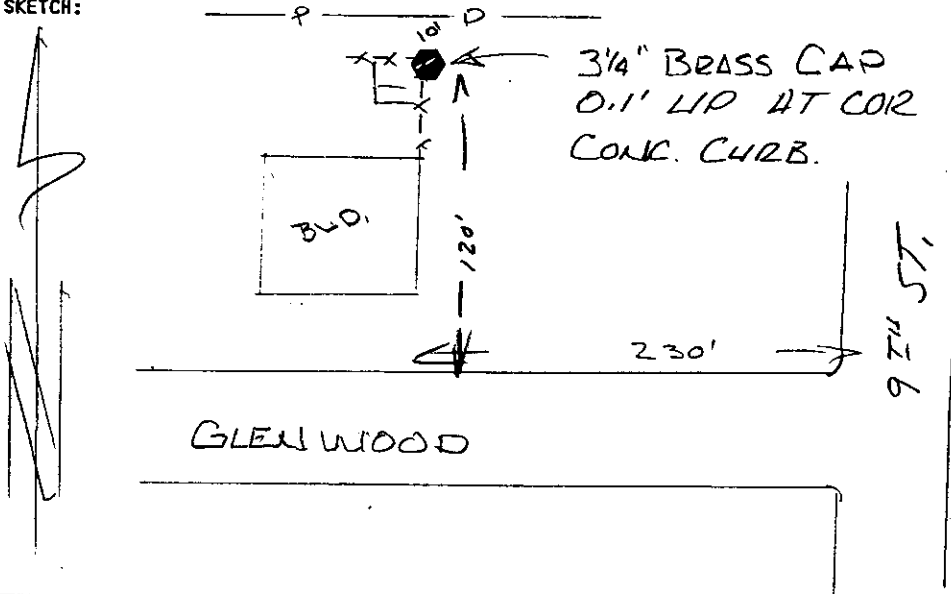
MARK: 17123300 HORIZONTAL ORDER: FIRST

Latitude:	44°03'05.063070"	ONE
Longitude:	121°18'13.768897"	SIGMA
Northing:	383311.3098	ERROR
Easting:	3294611.624	0.009
Convergence:	-0°00'51.2918"	0.009
Scale Factor:	1.000160033156	
Ellipsoid Height:	3589.7296	0.013
Orthometric Height:	3654.0304	0.014
Geoid Height:	-64.3008	

## CONTROL MARK DATA

NAME OF MARK: 17123304 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 7/08/92 COUNTRY: U.S.A.  
 LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: OCRR 1137

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

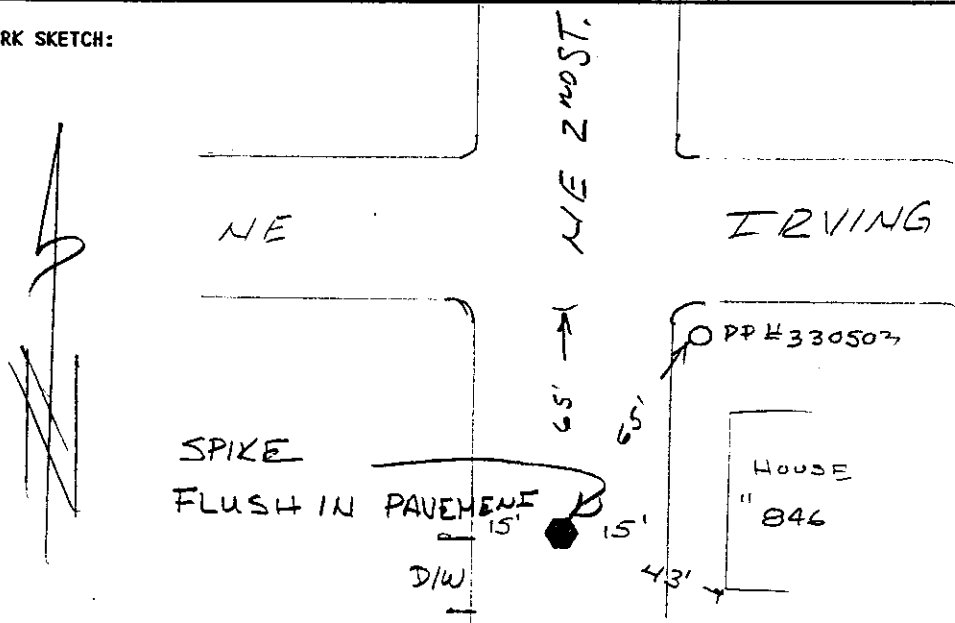
### GEODITIC AND MAPPING COORDINATES

<u>MARK: 17123304</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°03'04.882085"	ONE SIGMA ERROR
Longitude:	121°17'37.627663"	
Northing:	383292.4842	0.013
Easting:	3297251.5223	0.012
Convergence:	-0°00'26.1626"	
Scale Factor:	1.000160008626	
Ellipsoid Height:	3624.5963	0.018
Orthometric Height:	3688.8907	0.019
Geoid Height:	-64.2944	

## CONTROL MARK DATA

NAME OF MARK: 17123340 COUNTY: DESCHUTES  
 MARK SET BY: N/A STATE: OREGON  
 DATE OF MARK: N/A COUNTRY: U.S.A.  
 LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

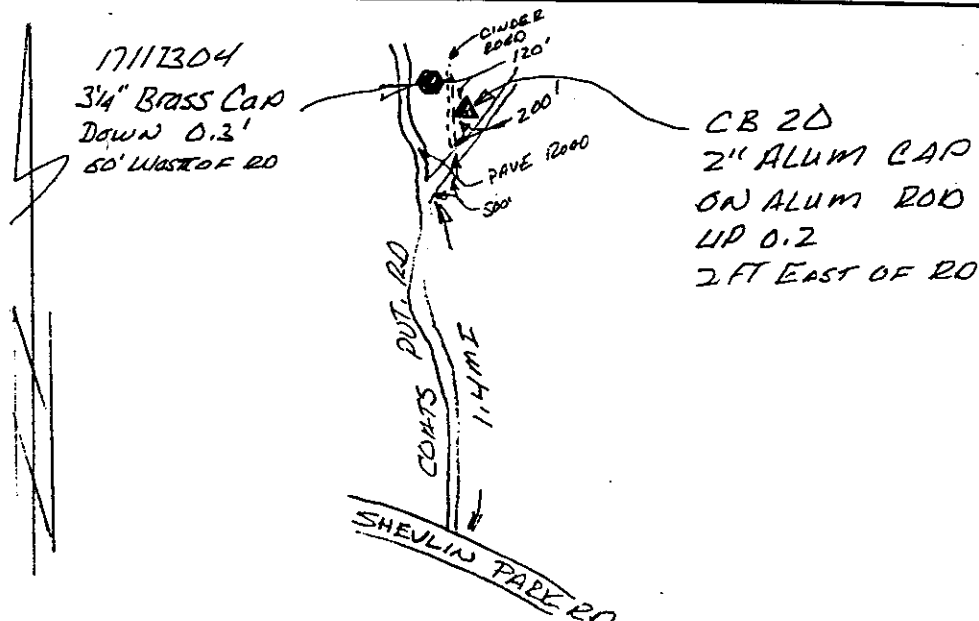
<u>MARK: 17123340</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'31.350952"	ONE SIGMA ERROR
Longitude:	121°18'14.078954"	
Northing:	385973.718	0.010
Easting:	3294589.641	0.010
Convergence:	-0°00'51.5141"	
Scale Factor:	1.000160033427	
Ellipsoid Height:	3558.5975	0.016
Orthometric Height:	3622.9623	0.017
Geoid Height:	-64.3648	



## CONTROL MARK DATA

NAME OF MARK: CB20 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 24 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

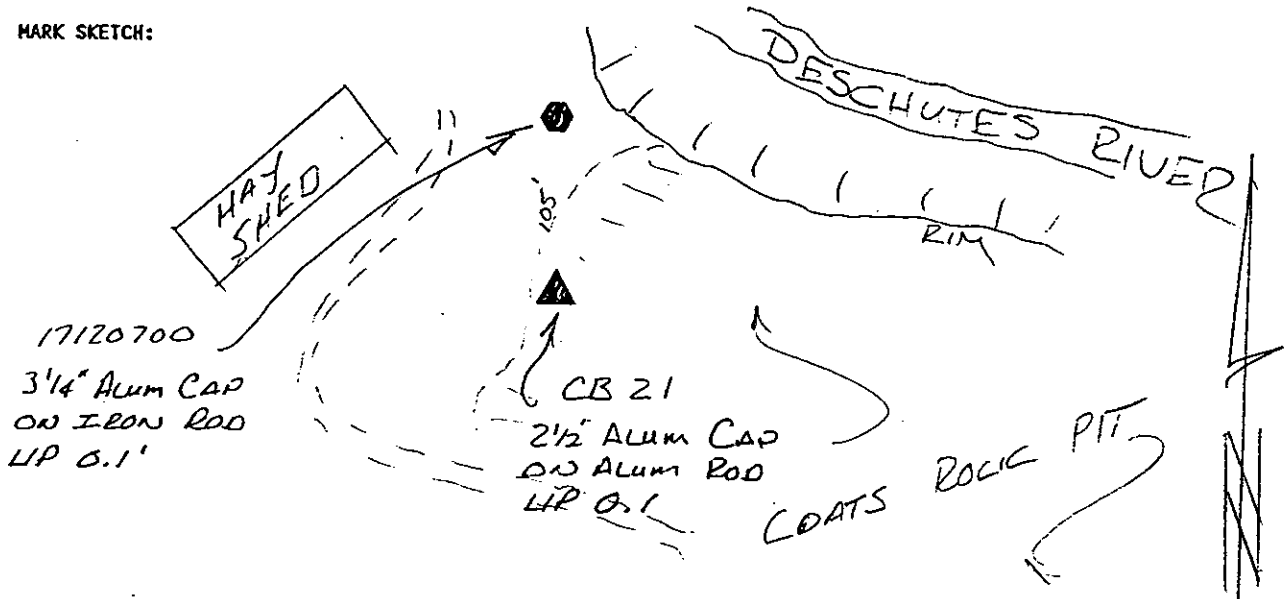
MARK: CB20 HORIZONTAL ORDER: FIRST

Latitude:	44°05'40.410113"	ONE SIGMA ERROR
Longitude:	121°21'12.181668"	
Northing:	399051.8662	0.014
Easting:	3281593.0195	0.013
Convergence:	-0°02'55.4793"	
Scale Factor:	1.000160386906	
Ellipsoid Height:	3584.7769	0.021
Orthometric Height:	3649.4436	0.024
Geoid Height:	-64.6667	

## CONTROL MARK DATA

NAME OF MARK: CB21 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 18 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

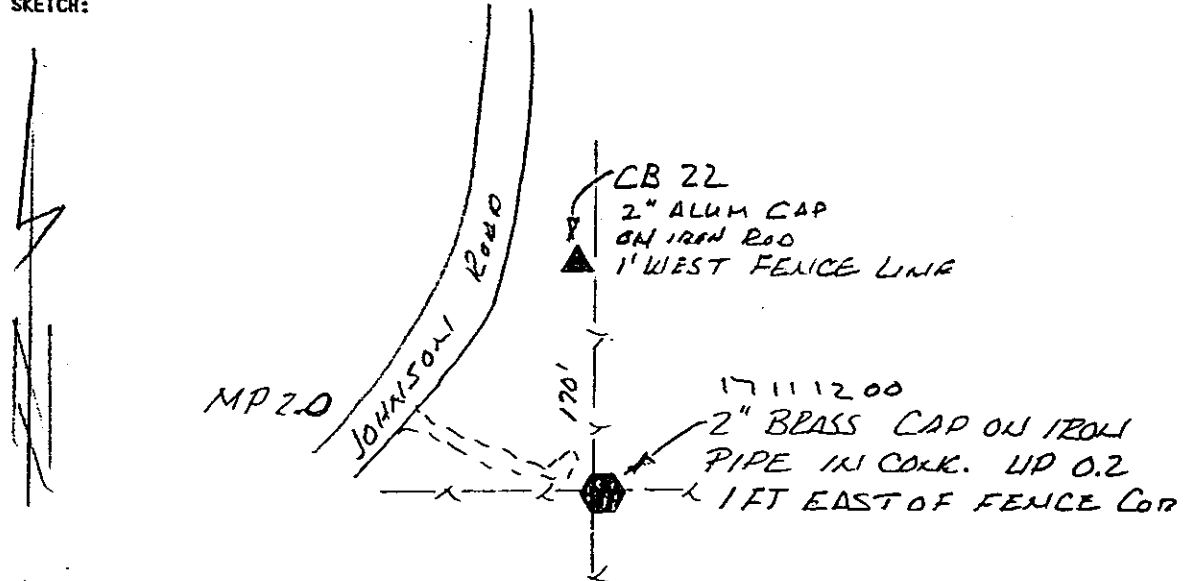
GEODITIC AND MAPPING COORDINATES

MARK: <u>CB21</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'32.822188"	ONE SIGMA ERROR
Longitude:	121°20'37.266341"	
Northing:	404358.1189	0.011
Easting:	3284145.4138	0.010
Convergence:	-0°02'31.2233"	
Scale Factor:	1.000160287044	
Ellipsoid Height:	3416.3033	0.015
Orthometric Height:	3481.1121	0.018
Geoid Height:	-64.8088	

## CONTROL MARK DATA

NAME OF MARK: CB22 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 12 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

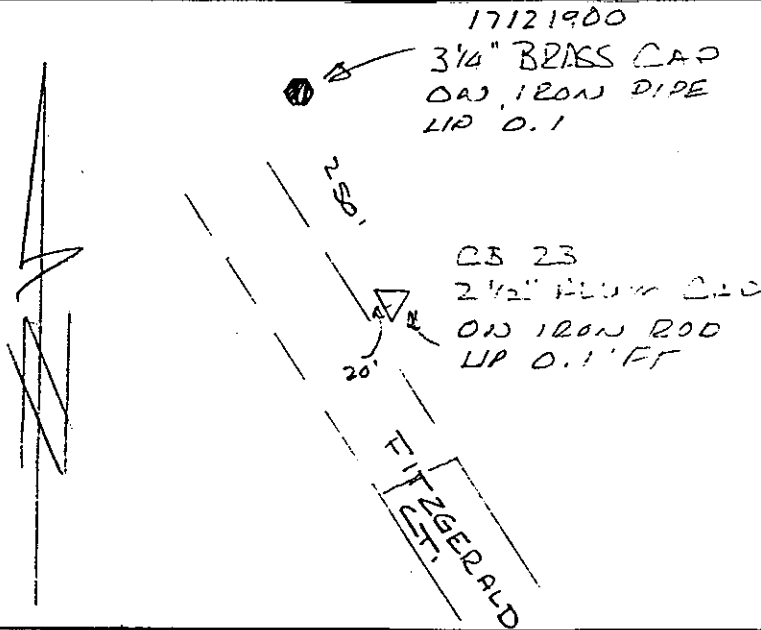
GEODITIC AND MAPPING COORDINATES

<u>MARK: CB22</u>	HORIZONTAL ORDER: FIRST	
Latitude:	44°06'35.329529"	ONE SIGMA ERROR
Longitude:	121°21'48.047955"	
Northing:	404616.4653	0.011
Easting:	3278980.5107	0.010
Convergence:	-0°03'20.4918"	
Scale Factor:	1.000160504525	
Ellipsoid Height:	3468.3367	0.015
Orthometric Height:	3533.1329	0.016
Geoid Height:	-64.7962	

## CONTROL MARK DATA

NAME OF MARK: CB23 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 30 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

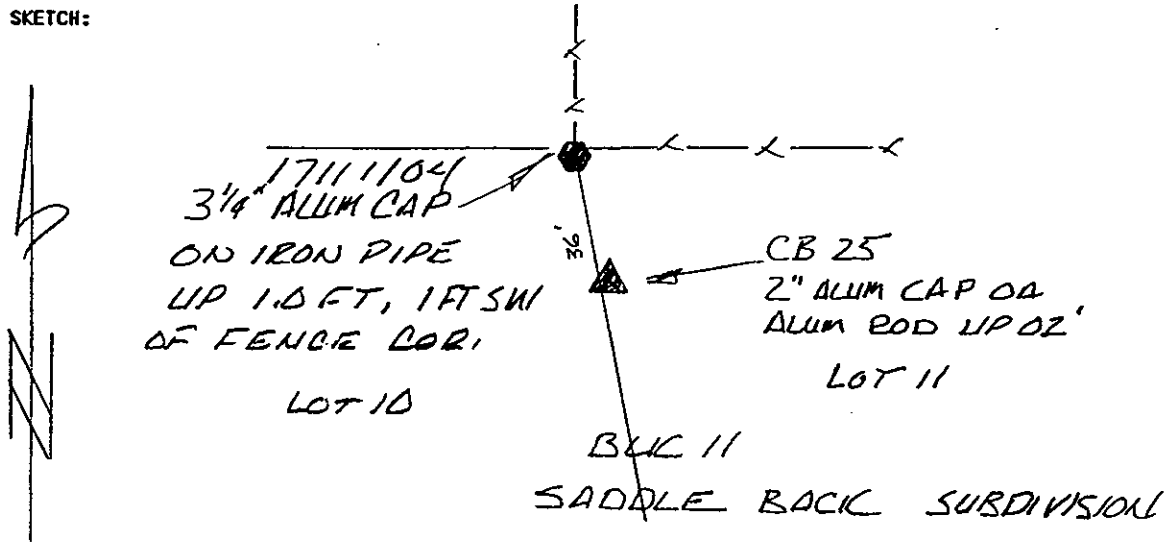
MARK: CB23 HORIZONTAL ORDER: FIRST

Latitude:	44°04'47.563232"	ONE SIGMA ERROR
Longitude:	121°20'34.963937"	
Northing:	393697.4318	0.014
Easting:	3284305.6963	0.013
Convergence:	-0°02'29.5420"	
Scale Factor:	1.000160281271	
Ellipsoid Height:	3858.8971	0.020
Orthometric Height:	3923.4407	0.023
Geoid Height:	-64.5437	

## CONTROL MARK DATA

NAME OF MARK: CB25 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 14 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

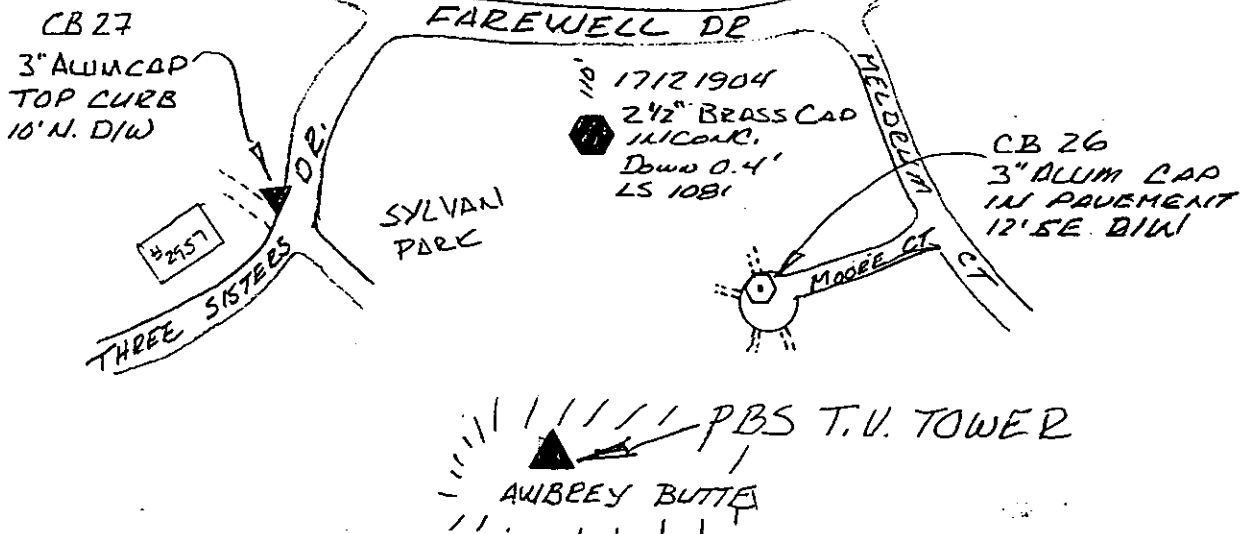
### GEODITIC AND MAPPING COORDINATES

<u>MARK: CB25</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°06'33.412257"	ONE SIGMA ERROR
Longitude:	121°22'24.501913"	
Northing:	404425.0339	0.017
Easting:	3276320.173	0.017
Convergence:	-0°03'45.8629"	
Scale Factor:	1.000160640318	
Ellipsoid Height:	3512.6784	0.025
Orthometric Height:	3577.4524	0.026
Geoid Height:	-64.774	

## CONTROL MARK DATA

NAME OF MARK: CB26 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 30 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

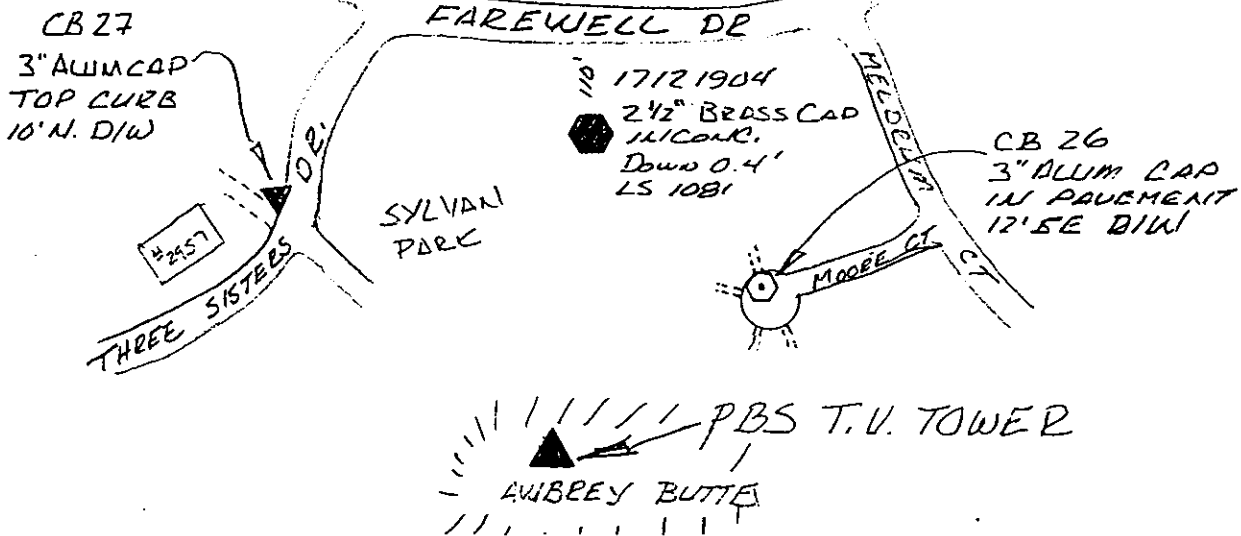
### GEODITIC AND MAPPING COORDINATES

<u>MARK: CB26</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°04'44.796562"	ONE SIGMA ERROR
Longitude:	121°19'58.978600"	
Northing:	393415.4804	0.015
Easting:	3286932.7809	0.014
Convergence:	-0°02'04.5066"	
Scale Factor:	1.000160194988	
Ellipsoid Height:	4090.7806	0.024
Orthometric Height:	4155.3242	0.027
Geoid Height:	-64.5437	

## CONTROL MARK DATA

NAME OF MARK: CB27 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 19 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

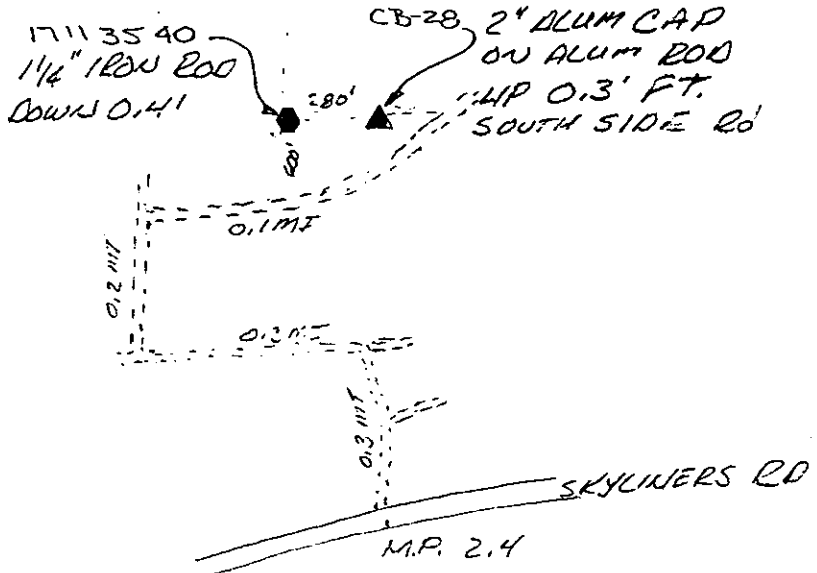
### GEODITIC AND MAPPING COORDINATES

<u>MARK: CB27</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°04'47.789330"	ONE
Longitude:	121°20'06.310774"	SIGMA
Northing:	393718.9152	ERROR
Easting:	3286397.6497	0.015
Convergence:	-0°02'09.6092"	0.014
Scale Factor:	1.000160211285	
Ellipsoid Height:	4060.4689	0.023
Orthometric Height:	4125.0192	0.026
Geoid Height:	-64.5503	

## CONTROL MARK DATA

NAME OF MARK: CB28 COUNTY: DESCHUTES  
 MARK SET BY: DESCHUTES CO. SURVEYOR STATE: OREGON  
 DATE OF MARK: 1992 COUNTRY: U.S.A.  
 LOCATION: SECTION 35 TOWNSHIP 17 S. RANGE 11 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

MARK: CB28 HORIZONTAL ORDER: FIRST

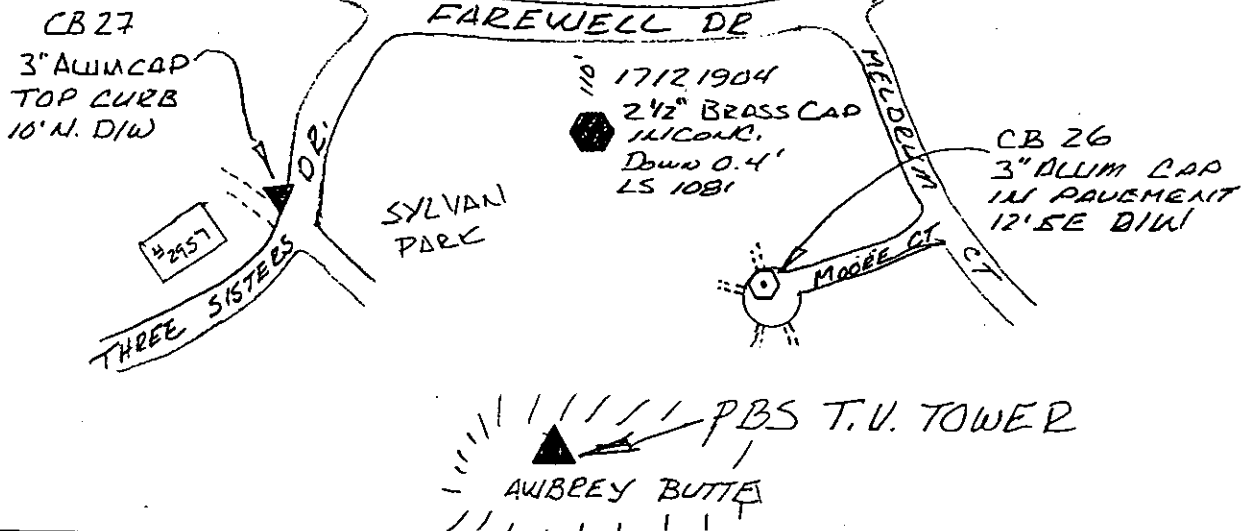
Latitude:	44°03'31.543025"	ONE
Longitude:	121°22'57.451586"	SIGMA
		ERROR
Northing:	386008.2258	0.018
Easting:	3273893.534	0.016
Convergence:	-0°04'08.5704"	
Scale Factor:	1.000160778287	
Ellipsoid Height:	3872.6754	0.025
Orthometric Height:	3936.9597	0.028
Geoid Height:	-64.2843	



## CONTROL MARK DATA

NAME OF MARK: P.B.S. TV TOWER COUNTY: DESCHUTES  
 MARK SET BY: OREGON PUBLIC BROADCASTING STATE: OREGON  
 DATE OF MARK: 1985+- COUNTRY: U.S.A.  
 LOCATION: SECTION 1 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 8

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

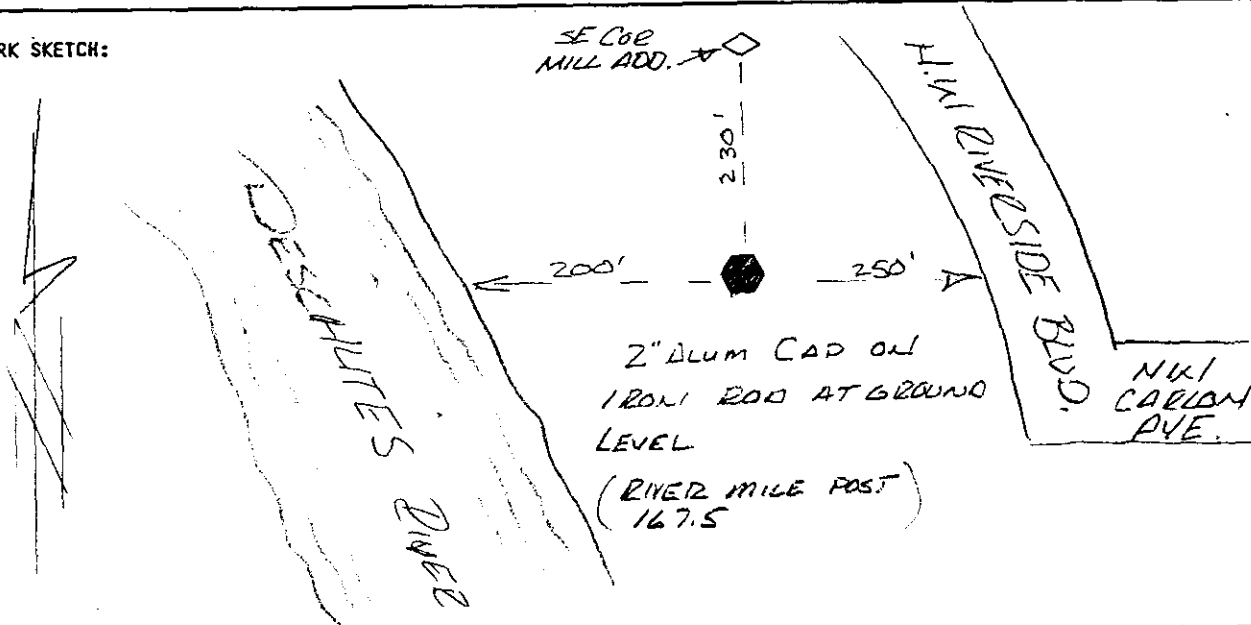
MARK: P.B.S. TV TOWER HORIZONTAL ORDER: SECOND

Latitude:	44°04'39.901477"	ONE
Longitude:	121°20'00.249426"	SIGMA
Northing:	392919.7668	ERROR
Easting:	3286839.6966	0.076
Convergence:	-0°02'05.3876"	0.031
Scale Factor:	1.000160197776	
Ellipsoid Height:	0	NOT-K
Orthometric Height:	0	NOT-K
Geoid Height:	-64	

## CONTROL MARK DATA

NAME OF MARK: USCE COUNTY: DESCHUTES  
 MARK SET BY: DAVID EVANS & ASSOCIATES STATE: OREGON  
 DATE OF MARK: 1984 COUNTRY: U.S.A.  
 LOCATION: SECTION 32 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: DGMC 9

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

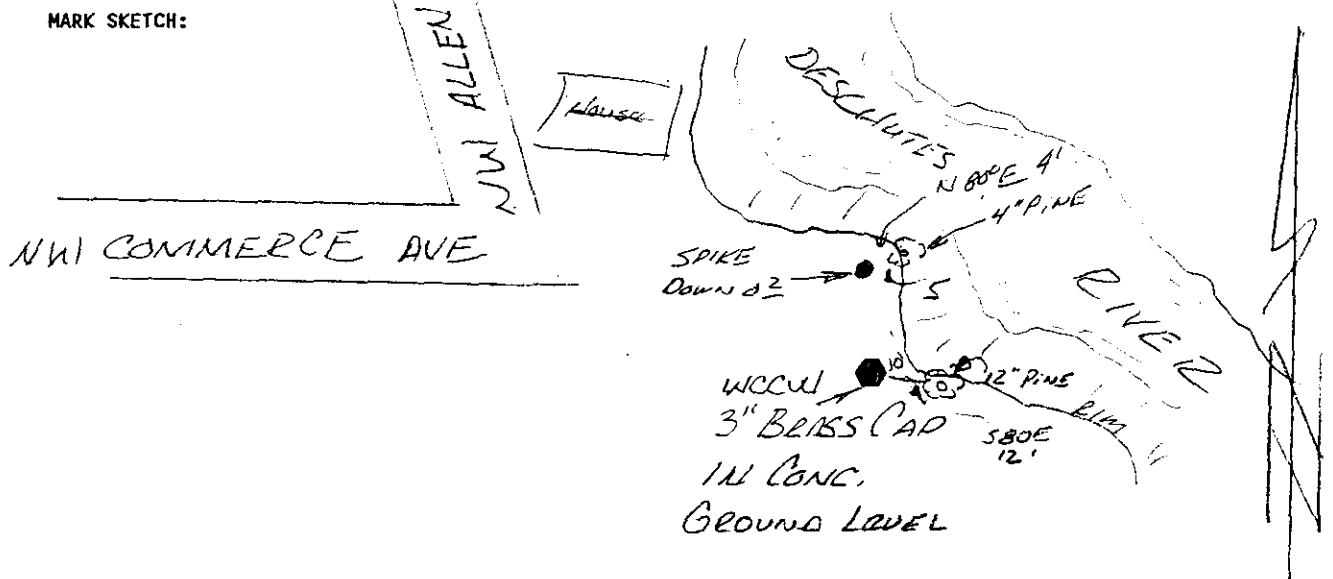
MARK: USCE HORIZONTAL ORDER: FIRST

Latitude:	44°03'06.007082"	ONE
Longitude:	121°19'19.426446"	SIGMA
Northing:	383408.6414	ERROR
Easting:	3289815.7782	0.011
Convergence:	-0°01'36.9442"	0.011
Scale Factor:	1.000160118440	
Ellipsoid Height:	3534.1231	0.016
Orthometric Height:	3598.425	0.018
Geoid Height:	-64.3019	

## CONTROL MARK DATA

NAME OF MARK: WCCW COUNTY: DESCHUTES  
 MARK SET BY: LS 0599 JAMES BUSSARD STATE: OREGON  
 DATE OF MARK: 1979 +/- COUNTRY: U.S.A.  
 LOCATION: SECTION 31 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
 REFERENCE NUMBER: NONE

MARK SKETCH:



DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993  
 FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HORIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"  
 VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"  
 COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING: 0.0000 F  
 ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F  
 LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

### GEODITIC AND MAPPING COORDINATES

MARK: <u>WCCW</u>	HORIZONTAL ORDER: <u>FIRST</u>	
Latitude:	44°03'04.828211"	ONE SIGMA ERROR
Longitude:	121°19'27.686543"	
Northing:	383289.5389	0.020
Easting:	3289212.3708	0.018
Convergence:	-0°01'42.6869"	
Scale Factor:	1.000160132891	
Ellipsoid Height:	3552.8805	0.030
Orthometric Height:	3617.1784	0.031
Geoid Height:	-64.2979	