DESCHUTES COUNTY
SECTION CORNER SURVEY

NORTHEAST BEND

BY

DESCHUTES COUNTY
SURVEYOR'S OFFICE

DGMC #7

FILED

DATE 5-14-93

DESCHUTES COUNTY SURVEYOR

BY Sheila Ode
NORTHEAST 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 1991 and 1992 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 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.

A Level loop was run with a Wild Ni 2 level and standard rod from N.G.S. bench marks K 2 to control point BA 40 and 17121300 to check the geoid modeling in the adjustment, the difference was less than 0.02 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 Pilot Butte 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 24, 26, 30, 34, 40, 43, 44, 46, 47 AND Stevens 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

DESHUTES 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' 00.0000"**

**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, John Blunt and Steve Powell, City of Bend, Ken Grantham and Don Sweet, Deschutes Co. Surveyor’s Office, Roy Easter, Jack Smith, Scott Freshwaters 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.
DESHUTES
COUNTY
PRIME
CONTROL
POINTS
HELD
FIX
DEPARTMENT OF COMMERCE  
NOAA - NOS - C&GS  
NATIONAL GEODETIC SURVEY

PILOT BUTTE  
PID: Q01681

HORIZONTAL DATUM: NAD 83 (1991)  
STATE: OREGON

VERTICAL DATUM: NGVD 29  
COUNTY: DESCHUTES

| LATITUDE:   | 44° 03' 37.94301" N ±0.00010 SECONDS |
| LONGITUDE:  | 121° 16' 59.64811" W ±0.00020 SECONDS |

| ORTHOMETRIC HEIGHT: | 1261.4 METERS |
|                    | 4138.0 FEET |

| GEOID HEIGHT:      | -19.433 METERS |
| ELLIPSOIDAL HEIGHT:| 1241.747 METERS |
| X:                 | 1801468.589 METERS |
| Y:                 | 2876581.605 METERS |
| Z:                 | 5383440.509 METERS |

HORIZONTAL NETWORK ORDER: B
ELLIPSOIDAL HEIGHT ORDER: SECOND CLASS III

THE HORIZONTAL COORDINATES WERE ESTABLISHED BY GPS OBSERVATIONS  
AND ADJUSTED BY THE NATIONAL GEODETIC SURVEY IN FEBRUARY 1991.  
THE ORTHOMETRIC HEIGHT WAS DETERMINED BY VERTICAL ANGLE OBSERVATIONS.  
THE GEOID HEIGHT WAS DETERMINED BY GEOID90.  
THE ELLIPSOIDAL HEIGHT WAS DETERMINED BY GPS OBSERVATIONS.

HORIZONTAL DATUM SHIFT——LATITUDE——LONGITUDE  
NAD83 minus NAD27 -00.58599" +04.10711" (Based on Adjusted Positions)

<table>
<thead>
<tr>
<th>POINT</th>
<th>NORTING METERS</th>
<th>EASTING METERS</th>
<th>SCALE</th>
<th>CONVERGENCE DEG MIN SEC</th>
<th>PILOT BUTTE AZ MK</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC</td>
<td>266,223.999</td>
<td>1,437,243.481</td>
<td>1.00001595</td>
<td>- 0 32.91</td>
<td>267 51 56.9</td>
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<td>SPC</td>
<td>44,073.993</td>
<td>2,437,239.542</td>
<td>1.00007981</td>
<td>- 0 33.19.7</td>
<td>267 52 56.9</td>
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<td>UTM</td>
<td>4,880,029.657</td>
<td>637,500.737</td>
<td>0.99983253</td>
<td>+ 1 11.38.6</td>
<td>266 08 09.2</td>
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(*ARC-TO-CHORD CORRECTION NOT APPLIED)

(Continued on Next Page)
PILOT BUTTE
PID: QD1681

STATION MARKS AND REFERENCE OBJECTS

<table>
<thead>
<tr>
<th>PID</th>
<th>REFERENCE OBJECT</th>
<th>DISTANCE</th>
<th>GEODETIC AZIMUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>QD1680</td>
<td>PILOT BUTTE USGS 1932</td>
<td>10.270 METERS</td>
<td>030 17</td>
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<tr>
<td></td>
<td>PILOT BUTTE RM 1</td>
<td>184.670 METERS</td>
<td>151 40</td>
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<tr>
<td>QD1679</td>
<td>SCENIC PIER ARROW PIVOT S 1945</td>
<td>7.814 METERS</td>
<td>158 27</td>
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<tr>
<td>QD1678</td>
<td>BEND WATER TANK</td>
<td>APPROX. 4.0 KM</td>
<td>188 02 02.9</td>
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<tr>
<td></td>
<td>PILOT BUTTE RM 2</td>
<td>127 580 METERS</td>
<td>247 32</td>
</tr>
<tr>
<td>QD1683</td>
<td>BEND BROOKS SCANLON INC TANK</td>
<td>APPROX. 3.5 KM</td>
<td>247 41 28.4</td>
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<tr>
<td></td>
<td>PILOT BUTTE AZ MK</td>
<td>267 19 47.8</td>
<td></td>
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<tr>
<td>QD1687</td>
<td>BEND PACIFIC GAS MICROWAVE</td>
<td>APPROX. 4.3 KM</td>
<td>295 30 55.1</td>
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<tr>
<td>QD1688</td>
<td>BEND BONNEVILLE POW ADM RD MST</td>
<td>APPROX. 4.3 KM</td>
<td>295 50 23.0</td>
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<tr>
<td>QD1685</td>
<td>BEND RAD STA KBND NW MAST</td>
<td>APPROX. 1.9 KM</td>
<td>329 34 53.6</td>
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<tr>
<td>QD1686</td>
<td>BEND RAD STA KBND SE MAST</td>
<td>APPROX. 1.9 KM</td>
<td>331 20 53.0</td>
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<tr>
<td>QD1682</td>
<td>SCENIC PIER ARROW PIVOT N 1945</td>
<td>5.209 METERS</td>
<td>338 44</td>
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<tr>
<td>QD1689</td>
<td>BEND RAD STA KGRL MAST</td>
<td>APPROX. 2.1 KM</td>
<td>353 24 40.9</td>
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</tbody>
</table>

STATION MARK IS A ....... HORIZONTAL CONTROL DISK
WITH SETTING ............ TOP OF CONCRETE MONUMENT (ROUND)
THE MARK IS STAMPED .... PILOT BUTTE 1932

STATION MARK HISTORY

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CONDITION OF MARK</th>
<th>RECOVERED OR DESCRIBED BY</th>
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<tbody>
<tr>
<td>1932</td>
<td>STATION MONUMENTED</td>
<td>COAST AND GEODETIC SURVEY</td>
</tr>
<tr>
<td>1945</td>
<td>GOOD</td>
<td>COAST AND GEODETIC SURVEY (CAG)</td>
</tr>
<tr>
<td>1953</td>
<td>GOOD</td>
<td>US GEOLOGICAL SURVEY</td>
</tr>
<tr>
<td>1959</td>
<td>GOOD</td>
<td>BONNEVILLE POWER ADMINISTRATION</td>
</tr>
<tr>
<td>1956</td>
<td>GOOD</td>
<td>US GEOLOGICAL SURVEY</td>
</tr>
<tr>
<td>1971</td>
<td>GOOD</td>
<td>NATIONAL GEOETIC SURVEY (LDP)</td>
</tr>
<tr>
<td>1987</td>
<td>GOOD</td>
<td>NATIONAL GEOETIC SURVEY (LLR)</td>
</tr>
<tr>
<td>1989</td>
<td>GOOD</td>
<td>LOCAL SURVEYOR (INDIVIDUAL OR FIRM)</td>
</tr>
</tbody>
</table>

STATION DESCRIPTION

DESCRIBED BY COAST AND GEODETIC SURVEY 1932

STATION IS LOCATED ABOUT 1.0 MILE E OF BEND ON THE TOP OF PILOT BUTTE.

STATION MARK IS A STANDARD BRONZE DISK SET IN CONCRETE AS DESCRIBED IN NOTE 1A. REFERENCE MARKS ARE STANDARD BRONZE DISKS IN OUTCROPPING BEDROCK AS DESCRIBED IN NOTE 12A.

U.S.G.S., PILOT BUTTE IS A U.S.G.S. STANDARD DISK IN OUTCROPPING BEDROCK NNW OF STATION.

REFERENCE MARK NO.1 IS WNW OF STATION.

SCENIC PIERS ARE NW AND SE OF STATION.

WATER TANK, (AZIMUTH MARK) IS S OF STATION.

(Continued on Next Page)
REFERENCE MARK NO. 2 IS WSW OF STATION.

STATION IS REACHED FROM BEND BY GOING E ON THE GREENWOOD AVENUE OR BURNS HIGHWAY FOR ABOUT 3/4 MILE TO THE JUNCTION WITH THE PILOT BUTTE ROAD. TAKE THE PILOT BUTTE ROAD AND FOLLOW THE CORKSCREW ROAD TO THE TOP OF THE BUTTE AND THE STATION.

HEIGHT OF SIGNAL ABOVE STATION MARK - 1-1/2 METERS.

STATION RECOVERY (1945)

RECOVERED BY COAST AND GEODETIC SURVEY 1945 (C&G) THE STATION AND ALL MARKS WERE RECOVERED AS DESCRIBED AND FOUND IN GOOD CONDITION WITH THE EXCEPTION OF REFERENCE MARK NO. 1 WHICH COULD NOT BE RECOVERED AND IS BELIEVED TO HAVE BEEN DESTROYED BY ROAD CONSTRUCTION. AN AZIMUTH MARK WAS ESTABLISHED.

A COMPLETE NEW DESCRIPTION FOLLOWS.

THE STATION IS LOCATED ABOUT 1 MILE EAST OF BEND ON THE HIGHEST PART OF PILOT BUTTE AND IS IN THE CENTER OF A TRAFFIC CIRCLE. IT IS DESCRIBED BY NOTE 1A AND IS FLUSH WITH THE SURFACE OF THE GROUND. IT IS STAMPED PILOT BUTTE 1932.

U.S.G.S. MARK IS A STANDARD DISK B.M. TABLET SET IN A SMALL LAVA BOULDER THAT IS FLUSH WITH THE GROUND SURFACE. IT IS STAMPED PILOT BUTTE 4136 1916.

REFERENCE MARK NO. 2 IS SET IN A LARGE BOULDER THAT PROJECTS ABOUT 3 FEET. IT IS ABOUT 5 FEET BELOW STATION ELEVATION. IT IS DESCRIBED BY NOTE 12C AND IS STAMPED PILOT BUTTE NO 2 1932.

SCENIC PIER, ARROW PIVOT, NORTH. IT IS A SMALL TOWER 3.5 FEET HIGH AND 2X2 FEET SQUARE. IT IS CONSTRUCTED OF ROCK AND HAS A FLAT TOP WITH A POINT IN THE CENTER FOR A ARROW PIVOT TO BE PLACED.

SCENIC PIER, ARROW PIVOT, SOUTH. IT IS A SMALL TOWER 3.5 FEET HIGH AND 2X2 FEET SQUARE. IT IS CONSTRUCTED OF ROCK AND HAS A FLAT TOP WITH A POINT IN THE CENTER FOR A ARROW PIVOT TO BE PLACED.


TO REACH FROM THE JUNCTION OF U.S. HIGHWAY NO. 97 AND U.S. HIGHWAY NO. 20 IN BEND, GO EAST, TOWARDS BURNS, ON U.S. HIGHWAY NO. 20 FOR 1.7 MILES TO A ROAD FORKS. TURN LEFT ON TO PILOT BUTTE ROAD AND CONTINUE 1.1 MILES TO TOP OF BUTTE AND THE STATION AS DESCRIBED.

(Continued on Next Page)
PILOT BUTTE

STAION RECOVERY (1958)

RECOVERED BY US GEOLOGICAL SURVEY 1958
RECOVERED AS DESCRIBED BY NGS. RMS NOT OBSERVED.

STAION RECOVERY (1959)

RECOVERED BY BONNEVILLE POWER ADMINISTRATION 1959
STAION RECOVERED AS DESCRIBED. THE HIGHWAY IS NOW UNITED STATES HIGHWAY NO. 20.

STAION RECOVERY (1966)

RECOVERED BY US GEOLOGICAL SURVEY 1966
RECOVERED AS DESCRIBED BY NGS. RMS NOT OBSERVED.

STAION RECOVERY (1971)

RECOVERED BY NATIONAL GEODETIC SURVEY 1971 (LDF)
STAION MARK, REFERENCE MARKS 1, 2 AND THE AZIMUTH MARK WERE RECOVERED AND FOUND IN GOOD CONDITION. SCENIC PIER ARROW PIVOT NORTH WAS RECOVERED IN GOOD CONDITION BUT SCENIC PIER ARROW PIVOT SOUTH HAD BEEN REMOVED. A SLIGHT DIFFERENCE WAS NOTED IN THE DISTANCE AND DIRECTION TO BOTH REFERENCE MARKS AND A NOTICEABLE DIFFERENCE WAS NOTED IN THE DIRECTION TO THE AZIMUTH MARK AND WAS CHECKED IN THE FIELD.

FOLLOWING IS A NEW AND COMPLETE DESCRIPTION--

STAION IS LOCATED ABOUT 1 MILE EAST OF BEND AND IS ON THE HIGHEST
POINT OF WHAT IS LOCALLY KNOWN AS PILOT BUTTE.

TO REACH THE STAION FROM THE JUNCTION OF U.S. HIGHWAYS 97 AND 20
IN BEND, (THE AZIMUTH MARK IS LOCATED AT THIS JUNCTION) GO EAST ON
U.S. HIGHWAY 20 FOR 0.75 MILE TO A FORK AND SIGN PILOT BUTTE STATE
PARK. TAKE THE LEFT FORK AND GO EAST UP WINDING PAVED ROAD FOR
1.0 MILE TO THE HIGHEST POINT AND THE STAION.

STAION MARK IS A STANDARD DISK, STAMPED PILOT BUTTE 1932, SET IN
THE TOP OF A 12-INCH SQUARE CONCRETE MONUMENT WHICH PROJECTS ABOUT
2 INCHES ABOVE THE SURFACE OF THE GROUND. IT IS IN THE CENTER OF
A TRAFFIC CIRCLE AND IS 59 FEET NORTH OF A SET OF ROCK STEPS
LEADING TO THE TOP OF THE HILL, 24.5 FEET NORTHWEST OF A ROCK
MONUMENT AND 19 FEET EAST-SOUTHEAST OF A ROCK MONUMENT.

REFERENCE MARK 1 IS A STANDARD DISK, STAMPED PILOT BUTTE NO 1
1932, CEMENTED IN A DRILL HOLE IN THE TOP OF A 1 X 2 FOOT OUTCROP
WHICH PROJECTS ABOUT 2 INCHES ABOVE THE SURFACE OF THE GROUND. IT
IS 93 FEET EAST-SOUTH EAST OF THE APPROXIMATE CENTER OF THE CIRCLE
DRIVE ROAD AND 41 FEET WEST OF THE CENTER OF THE PAVED ROAD
LEADING UP THE HILL.

(Continued on Next Page)
REFERENCE MARK 2 IS A STANDARD DISK, STAMPED PILOT BUTTE NO 2 1932, CEMENTED IN A DRILL HOLE IN THE TOP OF A LARGE BOULDER WHICH PROJECTS ABOUT 2 1/2 FEET ABOVE THE SURFACE OF THE GROUND. IT IS 88 FEET SOUTHWEST OF THE ROCK STEPS AND 47 FEET SOUTHWEST OF THE APPROXIMATE CENTER OF THE ROAD CIRCLING THE TOP OF THE HILL.

SCENIC PIER ARROW PIVOT NORTH IS A PUNCH HOLE IN THE TOP OF A ROUND METAL PLATE FASTENED TO THE TOP OF A ROCK AND CONCRETE MONUMENT WHICH PROJECTS ABOUT 3 1/2 FEET. IT IS ON THE HIGHEST PART OF THE HILL.


STATION IS IN THE NORTHWEST 1/4 OF SECTION 34, T 17 S, R 12 E.

HEIGHT OF LIGHT ABOVE STATION MARK 30 FEET.

AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN 1 MILE EAST OF BEND.

STATION RECOVERY (1987)

RECOVERED BY NATIONAL GEODETIC SURVEY 1987 (LLR) THE STATION WAS RECOVERED AT THIS DATE. NONE OF THE OTHER MARKS WERE SEARCHED FOR AT THIS DATE. THE 1971 RECOVERY NOTE IS ADEQUATE FOR RECOVERY.

STATION RECOVERY (1989)

RECOVERED BY LOCAL SURVEYOR (INDIVIDUAL OR FIRM) 1989 TEXT WAS SUPERSEDED BY LATER RECOVERY.

STATION IS LOCATED ABOUT 3.2 KM (2.00 MI) EAST OF DOWNTOWN BEND ON THE TOP OF PILOT BUTTE. OWNERSHIP: PILOT BUTTE STATE PARK, DISTRICT MANAGER: STEVE WEINMEYER, 62796 O B RILEY RD, BEND OR 97701, PHONE 503-388-6055.

TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 20 AND U.S. HIGHWAY 97, IN BEND, GO EAST ON U.S. HIGHWAY 20 FOR 0.72 KM (0.45 MI) TO N.E. 8TH STREET. CONTINUE AHEAD, EAST, FOR 0.48 KM (0.30 MI) ON U.S. HIGHWAY 20 TO THE ENTRANCE OF PILOT BUTTE STATE PARK ON THE LEFT. TURN LEFT AND FOLLOW PARK ROAD PAST GATE (GATE MAYBE LOCKED BY HIGHWAY DEPARTMENT DURING WINTER MONTHS) GOING UPHILL, CIRCLING BUTTE FOR 1.8 KM (1.10 MI) TO TOP OF BUTTE AND STATION IN THE CENTER OF VIEWING AREA.

STATION IS LOCATED 11.9 M (39.0 FT) WEST OF STONE MONUMENT PROJECTING 1.3 M (4.3 FT) ABOVE GROUND WITH PLAQUE HONORING TERRANCE FOLEY, 8.2 M (26.9 FT) NORTHWEST OF STONE MONUMENT PROJECTING 1.1 M (3.6 FT) ABOVE GROUND AND 6.1 M (20.0 FT) SOUTHEAST OF STONE MONUMENT WITH PLAQUE IDENTIFYING LOCAL MOUNTAIN PEAKS.
The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Precision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by GPS.

SURFACE MARKER:
MARK IS STAMPED — T 17 S R 14 S 27|26 34|35 1988 LS 1031
AGENCY INSCRIPTION — DESCHUTES COUNTY SURVEYOR'S OFFICE
THE STATION IS LOCATED ABOUT 13.7 MILES EASTERY OF BEND.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED EAST ON HWY 20 FOR 4.25 MI., TURN LEFT ON POWELL BUTTE HWY & PROCEED NORTHEAST FOR 0.6 MI., TURN RIGHT ON ALFALFA MARKET RD. & PROCEED EASTERY FOR 9.40 MILES, TURN RIGHT ON RIGHT ON WALKER ROAD AND PROCEED SOUTH FOR 1.0 MILES TO THE STATION IN A WATER VALVE BOX IN THE CENTER OF THE PAVED ROAD.

THE STATION MARK IS A 3 1/2 IN. STANDARD DESCHUTES COUNTY ALUMINUM DISK ON AN IRON PIPE IN A MASS OF CONCRETE 1.2 FEET BELOW ROAD SURFACE IN A WATER VALVE BOX. 9 FEET WEST OF THE EAST EDGE OF PAVEMENT.
DESCHUTES COUNTY PRIME CONTROL NETWORK
CONTROL STATION DESCRIPTION

NAME: E 30 RESSET 1969
GIS # 0030
ORDER C-1st. (GPS)

STATION LOCATION

T. 16 S. - R. 12 E., SEC. 26

HORIZONTAL DATUM: NAD 83 (1991)
VERT. DATUM: NGVD 29 & NAVD 88
LATITUDE: '44° 09' 44.11872" N
LONGITUDE: 121° 15' 05.57057" W

------------- EC CARTESIAN -------------
X: -2377973.905 METERS
Y: -3918541.092 METERS
Z: +4421724.853 METERS

------------- HEIGHT -------------
ELLIPSOIDAL: 979.148 METERS
NGVD 29 : 998.970 METERS
NAVD 88 : 1000.107 METERS
----- SPC -- OREGON SOUTH ------
NORTH: 277502.617±.003 METERS
EAST: 1439883.846±.003 METERS
SCALE FACTOR: 1.000045293
CONVERGENCE: - 0° 30' 51.01"

The horizontal coordinates & ellipsoidal height was determined by
GPS observations constrained by Oregon High Percision Network.
The orthometric height was determined by differential leveling.

SURFACE MARKER:
MARK IS STAMPED - E 30 RESSET 1969
AGENCY INSCRIPTION - US COST & GEODITIC SURVEY
THE STATION IS LOCATED ABOUT 7.8 MILES NORTHERLY 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 7.47 MI., TURN RIGHT AT DESCHUTES JUNCTION AND PROCEED
EAST FOR 0.24 MI., TURN LEFT ON PLEASANT RIDGE ROAD AND PROCEED
NORTH FOR 0.27 FEET TO THE STATION ON THE RIGHT WHERE A
IRRIGATION DITCH PASSES UNDER THE ROAD

THE STATION MARK IS A 3 1/2 IN. STANDARD US GEODETIC SURVEY
BRASS DISK IN GROUT IN THE NORTHEAST CORNER OF A CONCRETE
IRRIGATION SPIPHON HEADWALL THAT IS 16 FEET WEST OF THE CENTER
OF THE WESTERLY SET OF RAILROAD TRACKS.
DESchUTES COUNTY PRIME CONTROL NETWORK
CONTROL STATION DESCRIPTION

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

STATION LOCATION

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

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

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.

DESchUTES COUNTY SURVEYOR'S OFFICE
61150 S.E. 27th St.
Bend, Oregon. 97702
(503) 383-4395
Location and reference sketch:
Name: C-30 1921
GIS #: 34

Grandview Drive

Deschutes County Surveyor's Office
61150 S.E. 27th. St.
Bend, Oregon 97702
(503) 383-4395
NAME: GIS 0040
GIS # 0040
ORDER C-1st. (GPS)

STATION LOCATION

T. 18 S. - R. 13 E., SEC.24

The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Precision 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 0040 1990
AGENCY INSCRIPTION - NONE
THE STATION IS LOCATED ABOUT 10.0 MILES EASTERNLY OF BEND.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED EAST ON HWY 20 FOR 11.2 MI. TO THE STATION ON THE LEFT.

THE STATION MARK IS A 2 IN. BRASS CAP GROUTED IN CONCRETE AT THE SW CORNER OF A STATE HWY CONCRETE JUMP SCALE PAD AT GROUND LEVEL.

54 FEET NORTHEAST FROM THE CENTERLINE OF HWY 20.
30 FEET SOUTHWEST OF A WITNESS POST.
Location and reference sketch:
Name: GIS 40
GIS #: 40
NAME: GIS 0043
GIS #: 0043
ORDER C-1st. (GPS)

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

LATITUDE: 44° 02' 14.18867" N
LONGITUDE: 121° 09' 11.29598" W

------- EC CARTESIAN -------
X: -2376271.397 METERS
Y: -3930942.789 METERS
Z: +4411808.635 METERS

------- HEIGHT -------
ELLIPSOIDAL: 1062.666 METERS
NGVD 29: 1082.159 METERS
NAVD 88: 1083.318 METERS
--- SPC -- OREGON SOUTH ---
NORTH: 263549.533±.003 METERS
EAST: 1447647.137±.003 METERS

SCALE FACTOR: 1.000009687
CONVERGENCE: -0° 26' 48.63"

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 0043 1988 LS 1031
AGENCY INSCRIPTION - DESCHUTES COUNTY SURVEYORS OFFICE
THE STATION IS LOCATED ABOUT 4.0 MILES EASTERLY OF BEND.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED EAST ON HWY 20 FOR 2.04 MI. TO THE INTERSECTION WITH 27th STREET; PROCEED EAST ON HWY 20 FOR 2.1 MI. TO THE STATION ON THE LEFT.

THE STATION MARK IS A 2 IN. BRASS CAP GROUTED IN A ROCK OUTCROP AT GROUND LEVEL 2 FEET ABOVE ROADWAY.
13.0 FEET SOUTH OF A WIRE FENCE
21 FEET NORTH TO THE NORTH EDGE OF PAVEMENT
2 FEET NORTH OF A WITNESS POST.
The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Precision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by differential leveling.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED EAST ON HWY 20 FOR 2.04 MI. TO THE INTERSECTION WITH 27th STREET; PROCEED EAST ON HWY 20 FOR 2.1 MI. TO THE STATION ON THE LEFT.

THE STATION MARK IS A 2 IN. BRASS CAP GROUTED IN A ROCK OUTCROP AT GROUND LEVEL 2 FEET ABOVE ROADWAY.
13.0 FEET SOUTH OF A WIRE FENCE
21 FEET NORTH OF THE NORTH EDGE OF PAVEMENT
2 FEET NORTH OF A WITNESS POST.
Location and reference sketch:
Name: GIS 44
GIS #: 44
The horizontal coordinates & ellipsoidal height was determined by GPS observations constrained by Oregon High Precision Network. Adjusted by Deschutes Co. Surveyor's Office in July 1991. The orthometric height was determined by differential leveling.

SURFACE MARKER:
MARK IS STAMPED - BEND AIRPORT 1978
AGENCY INSCRIPTION - DESCUTES COUNTY CONTROL SURVEY
THE STATION IS LOCATED ABOUT 5.5 MILES EASTERLY OF BEND.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED EAST ON HWY 20 FOR 4.35 MI. TO THE JUNCTION WITH THE POWELL BUTTE COUNTY HWY, TURN LEFT AND PROCEED ON SAID HWY FOR 2.86 MILES TO THE STATION ON THE RIGHT.

THE STATION MARK IS A 3 IN. BRASS CAP GROUTED IN A 8 IN. PIPE IN A MASS OF CONCRETE 2 ABOVE GROUND LEVEL.
9.5 FEET EAST OF A WIRE FENCE
21 FEET WEST OF THE CENTER LINE OF THE HWY.
1 FEET SOUTH OF A WITNESS POST.
325 FEET SOUTH OF THE CENTER LINE OF BUTLER ROAD.
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.

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED EAST ON HWY 20 FOR 4.35 MI. TO THE JUNCTION WITH THE POWELL BUTTE COUNTY HWY., TURN LEFT AND PROCEED ON SAID HWY FOR 10.50 MILES TO THE STATION ON THE RIGHT, 3 FEET ABOVE ROADWAY IN ROCK OUTCROP.

THE STATION MARK IS A 3 1/2 IN. BRASS CAP GROUTED IN ROCK AT GROUND LEVEL.
61 FEET EAST OF A WIRE FENCE
20 FEET WEST OF THE ROCK CUT.
1 FEET SOUTH OF A WITNESS POST.
100 FEET SOUTH OF A BPA POWERLINE.
**DESCHUTES COUNTY PRIME CONTROL NETWORK**

**CONTROL STATION DESCRIPTION**

| NAME: STEVENS  
| GIS #: NONE  
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<tbody>
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**STATION LOCATION**

```

    ▲
```

| HORIZONTAL DATUM: NAD 83 (1991)  
| VERT. DATUM: NGVD 29 & NAVD 88  
|-------------------------------|
| LATITUDE: 44° 02' 12.88309" N  
<table>
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<th>LONGITUDE: 121° 15' 27.11712&quot; W</th>
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<tr>
<td>EC CARTESIAN</td>
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<tr>
<td>X: -2383461.676 METERS</td>
</tr>
<tr>
<td>Y: -3926659.215 METERS</td>
</tr>
<tr>
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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 - STEVENS 1978

AGENCY INSCRIPTION - DESCHUTES COUNTY CONTROL SURVEY

THE STATION IS LOCATED ABOUT 2.6 MILES SOUTHEAST OF BEND

TO REACH THE STATION FROM BEND, START AT THE INTERSECTION OF US HWY 20 (GREENWOOD AV.) & US HWY 97 (3RD ST.), PROCEED EAST ON HWY 20 FOR 2.04 MI., TURN RIGHT ON SE 27TH STREET & PROCEED SOUTH FOR 1.35 MI., TURN LEFT AT STEVENS ROAD AND PROCEED FOR 0.3 MI. TO THE STATION ON THE RIGHT.

---

THE STATION MARK IS A 3 1/2 IN. STANDARD DESCHUTES COUNTY ALUMINUM DISK GROUTED IN BEDROCK AT GROUND LEVEL.

27.34 FEET SOUTH OF THE SOUTH EDGE OF PAVEMENT OF STEVENS RD.

39.6 FEET WESTERLY OF A POWER POLE.

9.0 FEET SOUTH OF A WITNESS POST.

---

DESCHUTES COUNTY SURVEYOR'S OFFICE
61150 S.E. 27th St.
Bend, Oregon. 97702
(503) 383-4395
Location and reference sketch:
Name: Stevens 1978
GIS #: N/A

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

SURVEY POINTS

IN

DESGHUTES COUNTY

PLANE COORDINATES
CONTROL MARK DATA

NAME OF MARK: 16122600  COUNTY: DESCHUTES
MARK SET BY: LS 0654 NORMAN NEWTON  STATE: OREGON
DATE OF MARK: 3/15/67  COUNTRY: U.S.A.
LOCATION: SECTION 26  TOWNSHIP 16 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 858

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: HOIIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 16122600  HORIZONTAL ORDER: FIRST

Latitude: 44°09'09.791988"  ONE SIGMA ERROR
Longitude: 121°15'49.169051"  0.011
Northing: 420250.8344  0.011
Easting: 3305164.9486
Convergence: +0°00'49.3389"
Scale Factor: 1.000160030463
Ellipsoid Height: 3205.9743  0.021
Orthometric Height: 3271.003  0.034
Geoid Height: -65.0287
CONTROL MARK DATA

NAME OF MARK: 16122604
MARK SET BY: LS_1031...H.C...Kaufman
DATE OF MARK: 1/20/78
LOCATION: SECTION 26 TOWNSHIP 16 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 840

MARK SKETCH:

2" Brass Cap
in concre, 1.5 ft.
below ground
4' west of edge
of pavement

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE
DATE: 1992-1993

FIELD METHOD: GPS
FIELD EQUIPMENT: TRIMBLE 4000ST
ADJUSTED WITH: TRIMNET PLUS

DATUM: HOZINTONAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.0000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 16122604
HORIZONTAL ORDER: FIRST

Latitude: 44°09'09.824485"
Longitude: 121°15'12.888232"
Northing: 420254.9206
Easting: 3307810.5221
Convergence: +0°01'14.6112"
Scale Factor: 1.000160069662
Ellipsoid Height: 3206.4917
Orthometric Height: 3271.4855
Geoid Height: -64.9938

ONE SIGMA ERROR
Latitude: 0.012
Longitude: 0.011
Northing: 0.012
Easting: 0.011
Convergence: 0.020
Scale Factor: 0.033
Ellipsoid Height: 0.020
Orthometric Height: 0.033
Geoid Height: 0.043
**CONTROL MARK DATA**

**NAME OF MARK:** 16123400

**COUNTY:** DESCHUTES

**MARK SET BY:** DESCHUTES COUNTY 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:**

3" BRASS CAP ON 12' PIPE UP 0.12', 1 FT. EAST OF RD EDGE

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE

**DATE:** 1992-1993

**FIELD METHOD:** GPS

**FIELD EQUIPMENT:** TRIMBLE 4000ST

**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL = NAD (83-91)

**VERTICAL =** NGVD 29

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR

**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.0001600000

**LINEAR UNITS:** INTERNATIONAL FOOT

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 16123400

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<td>Northing</td>
<td>414950.321</td>
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<td>Easting</td>
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<td>Ellipsoid Height</td>
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**HORIZONTAL ORDER:** FIRST

**ONE SIGMA ERROR:**

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### Control Mark Data

**Name of Mark:** 16123404  
**County:** Deschutes  
**Mark Set By:** LS 1020 George Colvin  
**State:** Oregon  
**Country:** U.S.A.  
**Date of Mark:** 3/20/87  
**Location:** Section 34 Township 16 S. Range 12 E. Meridian: Willamette  
**Reference Number:** OCCR 115

**Mark Sketch:**

![Mark Sketch](image)

**Mark Sketch Notes:**
- 3/4" Aluminum Cap  
- On 5/8" IR  
- @ Ground Level

---

**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)  
- **Vertical:** NGVD 29

**Coordinate System:** Transverse Mercator  
**Origin Northing:** 0.0000 F  
**Origin Easting:** 3,300,000.0000 F  
**Scale Along Meridian:** 1.00016000000

---

**Geodetic and Mapping Coordinates**

**Mark:** 16123404  
**Horizontal Order:** First

- **Latitude:** 44°08'17.514322"  
- **Longitude:** 121°16'25.179940"  
- **Northing:** 414955.6677  
- **Easting:** 3302539.6796  
- **Convergence:** +0°00'24.2484"  
- **Scale Factor:** 1.000160007365  
- **Ellipsoid Height:** 3257.0281  
- **Orthometric Height:** 3321.9853  
- **Geoid Height:** -64.9572

**One Signa Error:**

- 0.020  
- 0.016  
- 0.036  
- 0.045
CONTROL MARK DATA

NAME OF MARK: 16123500
MARK SET BY: LS 1020 GEORGE COLVIN
DATE OF MARK: 3/20/97
LOCATION: SECTION 35 TOWNSHIP 16 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 116
COUNTY: DESCHUTES
STATE: OREGON
COUNTRY: U.S.A.

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: HOZIONTAL = NAD (83-91)
VERTICAL = NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT
CENTRAL MERIDIAN: W 121°17'00.000000" (2)
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 16123500
HORIZONTAL ORDER: SECOND

Latitud: 44°08'17.654016" ONE SIGMA
Longitude: 121°15'49.137469" ERROR
Northing: 414970.2849 0.024
Easting: 3305168.5151 0.041
Convergence: +0°00'49.3481"
Scale Factor: 1.000160030505

Ellipsoid Height: 3248.0576 0.035
Orthometric Height: 3312.9831 0.035
Geoid Height: -64.9255
CONTROL MARK DATA

NAME OF MARK: 16123540  COUNTY: DESCHUTES
MARK SET BY: GARY DEJARNATT  STATE: OREGON
DATE OF MARK: 10/21/88  COUNTRY: U.S.A.
LOCATION: SECTION 35  TOWNSHIP 16 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 841

MARK SKETCH:

3¼" Alum Cap on
5½" IR in Mound
Up 0.5' Above
Ground

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE  DATE: 1992-1993
FIELD METHOD: GPS  FIELD EQUIPMENT: TRIMBLE 4000ST  ADJUSTED WITH: TRIMNET PLUS
DATUM: HOIONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 16123540  HORIZONTAL ORDER: FIRST

Latitude: 44°08'.43.724248"  ONE
Longitude: 121°15'.49.156823"  SIGMA
Northing: 417610.6841  ERROR
Easting: 3305166.4719
Convergence: +0°00'.49.3410"
Scale Factor: 1.000160030481
Ellipsoid Height: 3230.3694  0.023
Orthometric Height: 3295.3482  0.035
Geoid Height: -64.9788
CONTROL MARK DATA

NAME OF MARK: 16123600
MARK SET BY: LS.0980. ED. GRAVES
DATE OF MARK: 1990
LOCATION: SECTION 36 TOWNSHIP 16 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: QCRR 91

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: HOI ZONTAL: 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: 16123600 HORIZONTAL ORDER: FIRST
Latitude: 44°08'17.831751" ONE
Longitude: 121°14'36.583312" SIGMA
Northing: 414990.2001 ERROR
Easting: 3310460.4038 0.013
Convergence: +0°01'39.8743"
Scale Factor: 1.000160124949 0.011
Ellipsoid Height: 3224.5499 0.025
Orthometric Height: 3289.412 0.036
Geoid Height: -64.8621
CONTROL MARK DATA

NAME OF MARK: 16133100
COUNTY: DESCHUTES
MARK SET BY: LS.1628 GARY HICKMAN
STATE: OREGON
DATE OF MARK: 1980
COUNTRY: U.S.A.
LOCATION: SECTION 31 TOWNSHIP 16 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 93

MARK SKETCH:

3" ALUM CAP ON ALUM. PIPE IN CONC.
UP 0.4 FT. E 45 FT. LINE

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

DATUM: HOIZONTAL= 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:
ZONE: DESCHUTES COUNTY 0.0000 F
LINEAR UNITS: INTERNATIONAL FOOT ORIGIN EASTING:
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 16133100 HORIZONTAL ORDER: FIRST

Latitutde: 44°08'17.402709" ONE SIGMA
Longitude: 121°13'24.292182" ERROR
Northing: 414949.9432 0.017
Easting: 3315733.1442 0.015
Convergence: +0°02'30.2170"
Scale Factor: 1.000160282661
Ellipsoid Height: 3267.8611 0.035
Orthometric Height: 3332.6502 0.044
Geoid Height: -64.789
CONTROL MARK DATA

NAME OF MARK: 16133400
MARK SET BY: DESCHUTES COUNTY SURVEYOR
DATE OF MARK: 1992
LOCATION: SECTION 34 TOWNSHIP 16 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1194

MARK SKETCH:

3" Brass Cap on
Iron Pipe in Mound Up 1 Foot

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:
ZONE: DESCHUTES COUNTY ORIGIN EASTING:
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 16133400 HORIZONTAL ORDER: FIRST

Latitude: 44°08'17.126968" ONE
Longitude: 121°09'47.412253" SIGMA
Northing: 414939.3278 ERROR
Easting: 3331551.8204 0.020
Convergence: +0°05'01.2500" 0.015
Scale Factor: 1.000161136801
Ellipsoid Height: 3268.6574 0.041
Orthometric Height: 3333.168 0.048
Geoid Height: -64.5105
**CONTROL MARK DATA**

**NAME OF MARK:** 16143100

**COUNTY:** DESCHUTES

**MARK SET BY:** DESCHUTES CO...SURVEYOR

**STATE:** OREGON

**DATE OF MARK:** 1992

**COUNTRY:** U.S.A.

**LOCATION:** SECTION 31 TOWNSHIP 16 S. RANGE 14 E. MERIDIAN: WILLAMETTE

**REFERENCE NUMBER:** OCRR 1193

**MARK SKETCH:**

![Sketch of control mark](image)

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE

**DATE:** 1992-1993

**FIELD METHOD:** GPS

**FIELD EQUIPMENT:** TRIMBLE 4000ST

**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIONTAL= 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 NORTING:** 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:** 16143100

**HORIZONTAL ORDER:** FIRST

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<td>3308.6512</td>
<td>0.050</td>
</tr>
<tr>
<td>Geoid Height</td>
<td>-64.1663</td>
<td></td>
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</table>
CONTROL MARK DATA

NAME OF MARK: 17120100  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 1992  COUNTRY: U.S.A.
LOCATION: SECTION 1  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1189

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: HOIZONTAL= 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17120100  HORIZONTAL ORDER: FIRST

Latitude: 44°07'25.645051"  ONE SIGMA ERROR
Longitude: 121°14'36.350129"
Northing: 409704.7365  0.019
Easting: 3310479.9746  0.017
Convergence: +0°01'40.0106"
Scale Factor: 1.000160125417
Ellipsoid Height: 3308.2506  0.041
Orthometric Height: 3373.0029  0.049
Geoid Height: -64.7523
CONTROL MARK DATA

NAME OF MARK: 17120140
COUNTY: DESCHUTES
MARK SET BY: LS_1020...GEORGE.COLVIN
STATE: OREGON
DATE OF MARK: 3/20/87
COUNTRY: U.S.A.
LOCATION: SECTION 1, TOWNSHIP 17 S, RANGE 12 E, MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRB 122

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: HOIZONTAL= 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 NORTTHING: 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: 17120140 HORIZONTAL ORDER: FIRST

Latitude: 44°07'51.703429" ONE
Longitude: 121°14'36.351442" SIGMA
Northing: 412343.9288 ERROR
Easting: 3310478.5991 0.016
Convergence: +0°01'40.0227" 0.014
Scale Factor: 1.000160125384
Ellipsoid Height: 3268.0065
Orthometric Height: 3332.8153 0.032
Geoid Height: -64.8089 0.041
CONTROL MARK DATA

NAME OF MARK: 17120200  COUNTY: DESCHUTES
MARK SET BY: LS 1020  GEORGE COLVIN  STATE: OREGON
DATE OF MARK: 3/20/87  COUNTRY: U.S.A.
LOCATION: SECTION 2  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 130

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

DATUM: HOIIZONTAL= 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 NORTING: 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: 17120200  HORIZONTAL ORDER: FIRST

Latitude: 44°07'25.559331"  ONE
Longitude: 121°15'49.677116"  SIGMA
Northing: 409694.1229  ERROR
Easting: 3305130.4072  0.013
Convergence: +0°00'48.9595"  0.012
Scale Factor: 1.000160030057
Ellipsoid Height: 3297.1783  0.023
Orthometric Height: 3361.9908  0.034
Geoid Height: -64.8125
CONTROL MARK DATA

NAME OF MARK: 17120204
MARK SET BY: LS 1020 GEORGE COLVIN
DATE OF MARK: 3/20/87
LOCATION: SECTION 2 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 131

MARK SKETCH:

3/4" ALUM CAP ON
5/8" IC. 0.1' FT
BETWEEN GROUND LEVEL

CB 19
P C N A I L & RASHER
E. ED MAIN 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)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN Northing: 0.0000 F
ORIGIN Easting: 3,300,000.000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17120204

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<td>Geoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: 17120240
COUNTY: DESCHUTES

MARK SET BY: LS 1020 GEORGE COLVIN
STATE: OREGON

DATE OF MARK: 3/20/87
COUNTRY: U.S.A.

LOCATION: SECTION 2 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRB 121

MARK SKETCH:

3'14" ALUM CAP ON 5'8"
12" GROUND LEVEL

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE
DATE: 1992-1993

FIELD METHOD: GPS
FIELD EQUIPMENT: TRIMBLE 4000ST
ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIzONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17120240
HORIZONTAL ORDER: FIRST

Latitude: 44°07'51.628024" ONE
Longitude: 121°15'49.482869" SIGMA
Northing: 412334.3633 ERROR
Easting: 3305143.9501 0.012
Convergence: +0°00'49.1012" 0.010
Scale Factor: 1.0001600030215
Ellipsoid Height: 3255.7143 0.021
Orthometric Height: 3320.5865 0.034
Geoid Height: -64.8723
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: HOIZONTAL= 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY
ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17120300 HORIZONTAL ORDER: FIRST

Latitude: 44°07'25.326270"
ONE SIGMA ERROR
Longitude: 121°17'01.463160"
0.010
Northing: 409669.91
0.009
Easting: 3299893.255
Convergence: -0°00'01.0187"
Scale Factor: 1.00016000000
Ellipsoid Height: 3311.4293
0.019
Orthometric Height: 3376.2953
0.032
Geoid Height: -64.866
**CONTROL MARK DATA**

**NAME OF MARK:** 17120304  
**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 129

**MARK SKETCH:**

![Mark Sketch Image]

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOI ZONTAL = NAD (83-91)  
**VERTICAL =** NGVD 29

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**ZONE:** DESCHUTES COUNTY

**LINEAR UNITS:** INTERNATIONAL FOOT

**CENTRAL MERIDIAN:** W 121°17'00.000000*

**LATITUDE OF ORIGIN:** N 43°00'00.000000*

**ORIGIN NORTING:** 0.0000 F

**ORIGIN EASTING:** 3,300,000.0000 F

**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17120304  
**HORIZONTAL ORDER:** FIRST

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<td>Longitude</td>
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<td>409686.8953</td>
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<td>Easting</td>
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<td>Ellipsoid Height</td>
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<td>Orthometric Height</td>
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<td>Geoid Height</td>
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</table>
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: HOizontal = NAD (83-91)
CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL = NGVD 2?
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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17120904
HORIZONTAL ORDER: FIRST

Latitude: 44°06'33.120168"
LONGITUDE: 121°17'37.184347"
Northing: 404382.6565
Easting: 3297286.5488
Convergence: -0°00'25.8814"
Scale Factor: 1.0001600008408
Ellipsoid Height: 3392.694
Orthometric Height: 3457.4622
Geoid Height: -64.7682
## CONTROL MARK DATA

**NAME OF MARK:** 17121000  
**COUNTY:** DESCHUTES  
**MARK SET BY:** LS 0540 GEORGE COOK  
**STATE:** OREGON  
**DATE OF MARK:** 1976  
**COUNTRY:** U.S.A.  
**LOCATION:** SECTION 10 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
**REFERENCE NUMBER:** OCRR 143

### MARK SKETCH:

![Control Mark Sketch](attachment:image.png)

- **2 1/2" Brass Cap**
- **Ontop 2" Iron Pipe**
- **100'**
- **Dirt 20'**
- **House (20'90) Cooley**
- **CB01 PK Nail & Flasher**

## DATA COMPUTED BY:
**DESHUTES COUNTY SURVEYOR'S OFFICE**  
**DATE:** 1992-1993

### FIELD METHOD: GPS  
### FIELD EQUIPMENT: TRIMBLE 4000ST  
### ADJUSTED WITH: TRIMNET PLUS

**DATUM:** HOIZONTAL= NAD (83-91)  
**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**VERTICAL= NGVD 29**  
**LATTITUDE OF ORIGIN:** N 43°00'00.000000"  
**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**ORIGIN NORTTHING:** 0.0000 F  
**ZONE:** DESCHUTES COUNTY  
**ORIGIN EASTING:** 3,300,000.0000 F  
**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

### GEODITIC AND MAPPING COORDINATES

**MARK:** 17121000  
**HORIZONTAL ORDER:** SECOND  

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<td>Northing</td>
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<td>Geoid Height</td>
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**CONTROL MARK DATA**

**NAME OF MARK:** 17121004  
**COUNTY:** DESCHUTES

**MARK SET BY:** LS 1020  
**STATE:** OREGON

**DATE OF MARK:** 3/20/87  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 10  
**TOWNSHIP:** 17 S.  
**RANGE:** 12 E.  
**MERIDIAN:** WILLAMETTE

**REFERENCE NUMBER:** OCRR 144

**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:** HOIORIZONTAL= NAD (83-91)  
**CENTRAL MERIDIAN:** W 121°17'00.000000"

**VERTICAL=** NGVD 29  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTHING:** 0.0000 F

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**ORIGIN EASTING:** 3,300,000.0000 F

**ZONE:** DESCHUTES COUNTY

**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

---

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17121004  
**HORIZONTAL ORDER:** SECOND

| Latitude: | 44°06'33.287695" |
| Longitude: | 121°16'25.531619" |
| Northing: | 404399.5997 |
| Easting: | 3302515.2571 |
| Convergence: | +0°00'23.9910" |
| Scale Factor: | 1.000160007224 |
| Ellipsoid Height: | 3388.07 |
| Orthometric Height: | 3452.7941 |
| Geoid Height: | -64.7241 |

---
CONTROL MARK DATA

NAME OF MARK: 17121100
MARK SET BY: LS. 1046 MREHET TME
DATE OF MARK: 1978
LOCATION: SECTION 11 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCB 145

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: HOIORIZONTAL= 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: 17121100 HORIZONTAL ORDER: SECOND

Latitude: 44°06'33.405173" ONE
Longitude: 121°15'49.676034" SIGMA
Northing: 404411.9605 ERROR
Easting: 3305131.7398 0.043
Convergence: +0°00'48.9475" 0.022
Scale Factor: 1.000160030072
Ellipsoid Height: 3365.3568 0.050
Orthometric Height: 3430.0594 0.050
Geoid Height: -64.7026
**CONTROL MARK DATA**

- **NAME OF MARK:** 17121104
- **COUNTY:** DESCHUTES
- **MARK SET BY:** DESCHUTES CO. PUBLIC WORKS
- **STATE:** OREGON
- **DATE OF MARK:** 1985
- **COUNTRY:** U.S.A.
- **LOCATION:** SECTION 11 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
- **REFERENCE NUMBER:** OCRR 1016360

**MARK SKETCH:**

![Mark Sketch](image)

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE

**DATE:** 1992-1993

**FIELD METHOD:** GPS
**FIELD EQUIPMENT:** TRIMBLE 4000ST
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL- NAD (83-91)  
VERTICAL= NGVD 29  
COORDINATE SYSTEM: TRANSVERSE MERCATOR

**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATTITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTHING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.000160000000

**GEODITIC AND MAPPING COORDINATES**

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<td>Geoid Height:</td>
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## CONTROL MARK DATA

**NAME OF MARK:** 17121140  
**COUNTY:** DESCHUTES  
**MARK SET BY:** LS 1020 GEORGE COLVIN  
**STATE:** OREGON  
**DATE OF MARK:** 3/20/87  
**COUNTRY:** U.S.A.  
**LOCATION:** SECTION 11  
**TOWNSHIP 17 S.**  
**RANGE 12 E.**  
**MERIDIAN:** WILLAMETTE  
**REFERENCE NUMBER:** OCRR 136

**MARK SKETCH:**

![Mark Sketch]

**MARKED ON:** 3/4" ALUM CAP ON 5/8" IR IN ROCK PILE. UP 1.5" ABOVE GROUND

---

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL= 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:** 1.00016000000

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**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17121140  
**HORIZONTAL ORDER:** FIRST

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</table>
CONTROL MARK DATA

NAME OF MARK: 17121200
COUNTY: DESCHUTES
MARK SET BY: LS 1020  GEORGE COLVIN
STATE: OREGON
DATE OF MARK: 3/20/87
COUNTRY: U.S.A.
LOCATION: SECTION 12  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 146

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: HOIIZONTAL= 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17121200  HORIZONTAL ORDER: SECOND

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<th>Coordinate</th>
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</table>
CONTROL MARK DATA

NAME OF MARK: 17121204
MARK SET BY: LS 1020 GEORGE COVLIN
DATE OF MARK: 3/20/87
LOCATION: SECTION 12 TOWNSHIP 17 S RANGE 12 E MERIDIAN: WILLAMETTE
REFERENCE NUMBER: QCRR 147

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: HOIZONTAL=NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160195635

GEODITIC AND MAPPING COORDINATES

MARK: 17121204
HORIZONTAL ORDER: FIRST

Latitude: 44°06'33.202046"
Longitude: 121°14'00.633209"
Northing: 404394.74
Easting: 3313088.9174
Convergence: +0°02'04.8444"
Scale Factor: 1.000160195635
Ellipsoid Height: 3334.8884
Orthometric Height: 3399.506
Geoid Height: -64.6176
**CONTROL MARK DATA**

**NAME OF MARK:** 17121300  
**COUNTY:** DESCHUTES

**MARK SET BY:** LS 1020 GEORGE COLVIN  
**STATE:** OREGON

**DATE OF MARK:** 3/20/87  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 13 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE

**REFERENCE NUMBER:** OCRR 161

**MARK SKETCH:**

![Mark Sketch](image)

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIIZONTAL= NAD (83-91)  
**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTHING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.00016000000

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**LINEAR UNITS:** INTERNATIONAL FOOT

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17121300  
**HORIZONTAL ORDER:** SECOND

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**CONTROL MARK DATA**

**NAME OF MARK:** 17121304  
**COUNTY:** DESCHUTES  
**MARK SET BY:** DESCHUTES CO. SURVEYOR  
**STATE:** OREGON  
**DATE OF MARK:** 1992  
**LOCATION:** SECTION 13 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
**REFERENCE NUMBER:** OCRR 1198

**MARK SKETCH:**

```
3'' Brass Cap  

BUTLER MET COA
```

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

**DATUM:** HOZIONTAL= 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 NORTING:** 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:** 17121304  
**HORIZONTAL ORDER:** SECOND

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**CONTROL MARK DATA**

**NAME OF MARK:** 17121340  
**COUNTY:** DESCHUTES

**MARK SET BY:** LS. 1081 JEFFERY KERN  
**STATE:** OREGON

**DATE OF MARK:** 1983  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 13  
**TOWNSHIP 17 S. RANGE 12 E. MERIDIAN:** WILLAMETTE

**REFERENCE NUMBER:** OCBR 152

**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:** HOIONTAL= NAD (83-91)  
**CENTRAL MERIDIAN:** W 121°17'00.000000'  
**VERTICAL=** NGVD 29  
**LATTITUDE 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:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17121340  
**HORIZONTAL ORDER:** FIRST

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CONTROL MARK DATA

NAME OF MARK: 17121400  COUNTY: DESCHUTES
MARK SET BY: LS 1020 GEORGE COLVIN  STATE: OREGON
DATE OF MARK: 3/20/87  COUNTRY: U.S.A.
LOCATION: SECTION 14 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 159

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17121400  HORIZONTAL ORDER: FIRST

Latitude: 44°05'41.120400"  ONE SIGMA ERROR
Longitude: 121°15'49.434738"  0.016
Northing: 399116.5869  0.014
Easting: 3305150.6086
Convergence: +0°00'49.1026"
Scale Factor: 1.000160030294
Ellipsoid Height: 3394.1307  0.028
Orthometric Height: 3458.7171  0.038
Geoid Height: -64.5864
CONTROL MARK DATA

NAME OF MARK: 17121404  COUNTY: DESCHUTES
MARK SET BY: LS 1020 GEORGE COLVIN  STATE: OREGON
DATE OF MARK: 3/20/87  COUNTRY: U.S.A.
LOCATION: SECTION 14  TOWNSHIP 17 S.  RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 160

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: HOIZONTAL= 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: 17121404  HORIZONTAL ORDER: FIRST

Latitude: 44°05'41.104681"  ONE SIGMA ERROR
Longitude: 121°15'13.149045"  0.011
Northing: 399115.7875  0.012
Easting: 3307799.1277  0.019
Convergence: +0°01'14.3519"  0.031
Scale Factor: 1.000160069460  Ellipsoid Height: 3394.5555
Orthometric Height: 3459.1201  Geoid Height: -64.5646
CONTROL MARK DATA

NAME OF MARK: 17121440
MARK SET BY: LS 1020 GEORGE COLVIN
DATE OF MARK: 3/20/87
LOCATION: SECTION 14 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 151

COUNTY: DESCHUTES
STATE: OREGON
COUNTRY: U.S.A.

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: HOZINTONAL- NAD (83-91)
VERTICAL- NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000°
LATITUDE OF ORIGIN: N 43°00'00.000000°
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17121440
HORIZONTAL ORDER: SECOND

Latitude: 44°06′07.271518″
Longitude: 121°15′49.554362″
Northing: 401765.1563
Easting: 3305141.2477
Convergence: +0°00′04.9258″
Scale Factor: 1.000160030184

Ellipsoid Height: 3388.7071
Orthometric Height: 3453.3502
Geoid Height: -64.6431

ONE SIGMA ERROR
0.044
0.016
0.046
0.046
**CONTROL MARK DATA**

**NAME OF MARK:** 17121500

**COUNTY:** DESCHUTES

**MARK SET BY:** LS 1020 GEORGE COLVIN

**STATE:** OREGON

**DATE OF MARK:** 3/20/87

**COUNTRY:** U.S.A.

**LOCATION:** SECTION 15 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE

**REFERENCE NUMBER:** OCRR 157

**MARK SKETCH:**

3/4" ALUM CAP OR 5/8" I.R. LIP 0.3' S' SW RD EDGE

**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:** HOIZONTAL= NAD (83-91)

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR

**CENTRAL MERIDIAN:** W 121°17'00.000000"

**LATITUDE OF ORIGIN:** N 43°00'00.000000"

**ORIGIN NORTHING:** 0.0000 F

**ORIGIN EASTING:** 3,300,000.0000 F

**SCALE ALONG MERIDIAN:** 1.00016000000

**LINEAR UNITS:** INTERNATIONAL FOOT

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17121500

**HORIZONTAL ORDER:** FIRST

- Latitude: 44°05'40.886145"  
- Longitude: 121°17'01.493902"

- Northing: 399092.2489  
- Easting: 3299890.9589

- Convergence: -0°00'01.0395"

- Scale Factor: 1.000160000014

- Ellipsoid Height: 3411.7102  
- Orthometric Height: 3476.3436

- Geoid Height: -64.6334
CONTROL MARK DATA

NAME OF MARK: 17121504
MARK SET BY: LS 1020 GEORGE COLVIN
DATE OF MARK: 3/20/87
LOCATION: SECTION 15 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 158

MARK SKETCH:

3" BRASS CAP IN MUL
Box 2' North E.P. & 2'
East of East Ditch

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993

FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIZONTAL= NAD (83-91) VERTICAL= NGVD 29 COORDINATE SYSTEM: TRANSVERSE MERCATOR ZONE: DESCHUTES COUNTY LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000" LATITUDE OF ORIGIN: N 43°00'00.000000" ORIGIN NORTHING: 0.0000 F ORIGIN EASTING: 3,300,000.0000 F SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: 17121504 HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.952307" Longitude: 121°16'25.450877"
Northing: 399099.0964 Easting: 3302521.767
Convergence: +0°00'24.0409" Scale Factor: 1.000160007262

Ellipsoid Height: 3406.5612 Orthometric Height: 3471.1694
Geoid Height: -64.6082

ONE SIGMA ERROR
0.013 0.013 0.024 0.035
CONTROL MARK DATA

NAME OF MARK: 17121540
MARK SET BY: LS 1020 GEORGE COLLIN
DATE OF MARK: 3/20/87
LOCATION: SECTION 15 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 150

MARK SKETCH:

3/4" ALUM CAD ON TOP 2" L.P. UP
0.15' AT FENCE COR.

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE
DATE: 1992-1993

FIELD METHOD: GPS
FIELD EQUIPMENT: TRIMBLE 4000ST
ADJUSTED WITH: TRIMNET PLUS

DATUM: HOZIONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17121540 HORIZONTAL ORDER: FIRST

Latitude: 44°06'06.998769"
Longitude: 121°17'01.550836"
Northing: 401736.9217
Easting: 3299886.8171
Convergence: -0°00'01.0793"
Scale Factor: 1.000160000015
Ellipsoid Height: 3411.9506
Orthometric Height: 3476.6438
Geoid Height: -64.6932
### Control Mark Data

**Name of Mark:** 17121604  
**County:** Deschutes  
**Mark Set By:** LS 1020 George Colvin  
**Date of Mark:** 3/20/87  
**Location:** Section 16 Township 17 S. Range 12 E. Meridian: Willamette  
**Reference Number:** OCRR 156

**Mark Sketch:**

![Mark Sketch Image]

**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)  
**Vertical:** NGVD 29  
**Coordinate System:** Transverse Mercator  
**Zone:** Deschutes County  
**Linear Units:** International Foot

**Central Meridian:** W 121°17'00.000000"  
**Latitude of Origin:** N 43°00'00.000000"  
**Origin Northing:** 0.0000 F  
**Origin Easting:** 3,300,000.0000 F  
**Scale Along Meridian:** 1.000160000000

**Geodetic and Mapping Coordinates**

**Mark:** 17121604  
**Horizontal Order:** First  
**Latitude:** 44°05'40.908798"  
**Longitude:** 121°17'37.506465"  
**Northing:** 399094.7162  
**Easting:** 3297262.3737  
**Convergence:** -0°00'26.0987"  
**Scale Factor:** 1.000160000000  
**Ellipsoid Height:** 3436.2545  
**Orthometric Height:** 3500.9031  
**Geoid Height:** -64.6486
CONTROL MARK DATA

NAME OF MARK: 17122200
COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS
STATE: OREGON
DATE OF MARK: 12/13/86
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: HOIIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NAVD 29 LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTHING:
ZONE: DESCHUTES COUNTY ORIGIN EASTING:
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODETIC AND MAPPING COORDINATES

MARK: 17122200 HORIZONTAL ORDER: FIRST

Latitude: 44°04'48.548620" ONE SIGMA
Longitude: 121°17'01.275820" ERROR
Northing: 393791.5421 0.011
Easting: 3299906.8541 0.010
Convergence: -0°00'00.8875"
Scale Factor: 1.000160000010
Ellipsoid Height: 3463.2985 0.020
Orthometric Height: 3527.6155 0.033
Geoid Height: -64.5171
**CONTROL MARK DATA**

**NAME OF MARK:** 17122204  
**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 947

**MARK SKETCH:**

1712 22 04

3/4" Alum Cap

on 5/8" IR up 0.4 ft.

CB06

P.K. NAIL & Flashe

Top Curb

VERONICA LN.

---

**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:** 3,300,000.000 F  
**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17122204  
**HORIZONTAL ORDER:** SECOND

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<td>Longitude:</td>
<td>121°16'25.426718&quot;</td>
</tr>
<tr>
<td>Northing:</td>
<td>393804.4295</td>
</tr>
<tr>
<td>Easting:</td>
<td>3302524.1479</td>
</tr>
<tr>
<td>Convergence:</td>
<td>+0°00'24.0514&quot;</td>
</tr>
<tr>
<td>Scale Factor:</td>
<td>1.0001600007276</td>
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<tr>
<td>Ellipsoid Height:</td>
<td>3446.9982</td>
</tr>
<tr>
<td>Orthometric Height:</td>
<td>3511.4873</td>
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<tr>
<td>Geoid Height:</td>
<td>-64.4891</td>
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**ONE SIGMA ERROR**

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<tr>
<th>Description</th>
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<tbody>
<tr>
<td></td>
<td>0.047</td>
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<tr>
<td></td>
<td>0.048</td>
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<td></td>
<td>0.052</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>
**CONTROL MARK DATA**

**NAME OF MARK:** 17122240

**COUNTY:** DESCHUTES

**MARK SET BY:** LS 1735 WILLIAM JABS

**STATE:** OREGON

**DATE OF MARK:** 1980 +-

**COUNTRY:** U.S.A.

**LOCATION:** SECTION 22 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE

**REFERENCE NUMBER:** OCRR 942

**MARK SKETCH:**

![Mark Sketch](image)

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE

**DATE:** 1992-1993

**FIELD METHOD:** GPS

**FIELD EQUIPMENT:** TRIMBLE 4000ST

**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL= NAD (83-91)  
VERTICAL= NGVD 29

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR

**ZONE:** DESCHUTES COUNTY

**LINEAR UNITS:** INTERNATIONAL FOOT

**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTHING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17122240  
**HORIZONTAL ORDER:** FIRST

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<th>Value</th>
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<tbody>
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<tr>
<td>Longitude</td>
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</tr>
<tr>
<td>Northing</td>
<td>396442.0707</td>
</tr>
<tr>
<td>Easting</td>
<td>3299894.6953</td>
</tr>
<tr>
<td>Convergence</td>
<td>-0°00'01.0037&quot;</td>
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<tr>
<td>Scale Factor</td>
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<tr>
<td>Ellipsoid Height</td>
<td>3454.1557</td>
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<tr>
<td>Orthometric Height</td>
<td>3518.7325</td>
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<tr>
<td>Geoid Height</td>
<td>-64.5769</td>
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**ONE SIGMA ERROR:**

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<tr>
<td>Longitude Error</td>
<td>1.442536&quot;</td>
</tr>
<tr>
<td>Northing Error</td>
<td>2.0707</td>
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<tr>
<td>Easting Error</td>
<td>4.6953</td>
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<tr>
<td>Convergence Error</td>
<td>1.0037&quot;</td>
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<tr>
<td>Scale Factor Error</td>
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<tr>
<td>Ellipsoid Height Error</td>
<td>0.1557</td>
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<tr>
<td>Orthometric Height Error</td>
<td>0.7325</td>
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<tr>
<td>Geoid Height Error</td>
<td>5769</td>
</tr>
</tbody>
</table>
CONTROL MARK DATA

NAME OF MARK: 17122300
COUNTY: DESCHUTES
MARK SET BY: LS 2033  MICHAEL TOMPKINS
STATE: OREGON
DATE OF MARK: 12/14/88
COUNTRY: U.S.A.
LOCATION: SECTION 23  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR926562

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: HOIZONTAL= 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: 1.0001600000

GEODITIC AND MAPPING COORDINATES

MARK: 17122300  HORIZONTAL ORDER: FIRST

Latitude: 44°04'48.873259"  ONE
Longitude: 121°15'49.556878"  SIGMA
Northing: 393825.0319  ERROR
Easting: 3305142.9509  0.013
Convergence: +0°00'49.0048"
Scale Factor: 1.000160003204
Ellipsoid Height: 3455.3772  0.022
Orthometric Height: 3519.8506  0.034
Geoid Height: -64.4734
CONTROL MARK DATA

NAME OF MARK: 17122304
MARK SET BY: LS 2033 MICHAEL TOMPKINS
DATE OF MARK: 12/09/88
LOCATION: SECTION 23 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 940

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

GEODITC AND MAPPING COORDINATES
MARK: 17122304 HORIZONTAL ORDER: FIRST

Latitude: 44°04'48.895194" ONE
Longitude: 121°15'13.246713" SIGMA ERROR
Northing: 393828.0456 0.013
Easting: 3307793.9029 0.010
Convergence: +0°01'14.2645"
Scale Factor: 1.000160069367
Ellipsoid Height: 3454.7165 0.021
Orthometric Height: 3519.168 0.033
Geoid Height: -64.4515
CONTROL MARK DATA

NAME OF MARK: 17122340  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 7/19/91  COUNTRY: U.S.A.
LOCATION: SECTION 23  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCCR 1068

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: HOIZONTAL= 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: 17122340  HORIZONTAL ORDER: SECOND

Latitude: 44°05'14.922566"  ONE
Longitude: 121°15'49.560655"  SIGMA
Northing: 396463.2853  ERROR
Easting: 3305142.0483  0.034
Convergence: +0°00'49.0086"  0.032
Scale Factor: 1.000160030193'
Ellipsoid Height: 3413.7724  0.037
Orthometric Height: 3478.3025  0.037
Geoid Height: -64.5301
CONTROL MARK DATA

NAME OF MARK: 17122400  COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS  STATE: OREGON
DATE OF MARK: 12/13/88  COUNTRY: U.S.A.
LOCATION: SECTION 24 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 945

MARK SKETCH:

3 1/4" Alum Cap AT FC. COE & Ground Level

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

DATUM: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17122400 HORIZONTAL ORDER: FIRST

Latittude: 44°04'48.921869"
Longitude: 121°14'36.896336"
Northing: 393831.8655
Easting: 3310447.79
Convergence: +0°01'39.5523"
Scale Factor: 1.000160124649
Ellipsoid Height: 3438.0352
Orthometric Height: 3502.4649
Geoid Height: -64.4297

ONE SIGMA ERROR
0.012
0.010
0.021
0.032
CONTROL MARK DATA

NAME OF MARK: 17122404  COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS  STATE: OREGON
DATE OF MARK: 12/15/88  COUNTRY: U.S.A.
LOCATION: SECTION 24 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 935

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°17'00.0000000"
VERTICAL = NGVD 29  LATITUDE OF ORIGIN: N 43°00'00.0000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR  ORIGIN NORTHDING: 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: 17122404  HORIZONTAL ORDER: FIRST

Latitude: 44°04'48.717173"  ONE
Longitude: 121°14'00.627122"  SIGMA
Northing: 393812.574  ERROR
Easting: 3313095.7651  0.009
Convergence: +0°02'04.7834"  0.008
Scale Factor: 1.000160195841
Ellipsoid Height: 3461.2096  0.017
Orthometric Height: 3525.6143  0.030
Geoid Height: -64.4046
CONTROL MARK DATA

NAME OF MARK: 17122440
MARK SET BY: UNKNOWN
DATE OF MARK: 1975+
LOCATION: SECTION 24 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 941

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)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17122440
HORIZONTAL ORDER: SECOND

Latitude: 44°05'15.002784"
Longitude: 121°14'36.685461"
Northing: 396473.3275
Easting: 3310461.9089
Convergence: +0°01'39.7120"
Scale Factor: 1.000160124986
Ellipsoid Height: 3410.6433
Orthometric Height: 3475.1295
Geoid Height: -64.4861

ONE SIGMA ERROR
0.039
0.029

CONTROL MARK DATA

NAME OF MARK: 17122500  
COUNTY: DESCHUTES

MARK SET BY: LS 2033 MICHAEL TOMPKINS  
STATE: OREGON

DATE OF MARK: 11/21/88  
COUNTRY: U.S.A.

LOCATION: SECTION 25  
TOWNSHIP 17 S.  
RANGE 12 E.  
MERIDIAN: WILLAMETTE

REFERENCE NUMBER: OCRR 925

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: HOIIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17122500  
HORIZONTAL ORDER: SECOND

Latitude: 44°03'56.743214"  
ONE SIGMA ERROR
Longitude: 121°14'37.127028"  
0.019
Northing: 388547.2541  
0.036
Easting: 3310433.4937  
Convergence: +0°01'39.3658"
Scale Factor: 1.000160124309  
Ellipsoid Height: 3520.8722  
0.044
Orthometric Height: 3585.1956  
Geoid Height: -64.3234
### CONTROL MARK DATA

**NAME OF MARK:** 17122504  
**COUNTY:** DESCHUTES

**MARK SET BY:** LS 2033 MICHAEL TOMPKINS  
**STATE:** OREGON

**DATE OF MARK:** 11/21/88  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 25 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE

**REFERENCE NUMBER:** OCRR 924

**MARK SKETCH:**

![Sketch of mark with details present]

---

### DATA COMPUTED BY:

**DESHUTES COUNTY SURVEYOR'S OFFICE**  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOZINTAL= NAD (83-91)  
**VERTICAL=** NGVD 29

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR

**ZONE:** DESCHUTES COUNTY

**LINEAR UNITS:** INTERNATIONAL FOOT

**CENTRAL MERIDIAN:** W 121°17’00.000000”

**LATITUDE OF ORIGIN:** N 43°00’00.000000”

**ORIGIN NORTHTING:** 0.0000 F

**ORIGIN EASTING:** 3,300,000.0000 F

**SCALE ALONG MERIDIAN:** 1.00016000000

### GEODITIC AND MAPPING COORDINATES

**MARK:** 17122504  
**HORIZONTAL ORDER:** SECOND

- **Latitude:** 44°03’56.601846”
- **Longitude:** 121°14’00.711646”
- **Northing:** 388534.3808
- **Easting:** 3313092.7853
- **Convergence:** +0°02’04.6920”
- **Scale Factor:** 1.000160195752
- **Ellipsoid Height:** 3511.0576
- **Orthometric Height:** 3575.3555
- **Geoid Height:** -64.298
CONTROL MARK DATA

NAME OF MARK: 17122540  
COUNTY: DESCHUTES

MARK SET BY: LS 2033 MICHAEL TOMPKINS  
STATE: OREGON

DATE OF MARK: 12/13/88  
COUNTRY: U.S.A.

LOCATION: SECTION 25 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: OCRR 943

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: HOIZONTAL= NAD (83-91)  
CENTRAL MERIDIAN: W 121°17'00.0000000"

VERTICAL= NGVD 29  
LATITUDE OF ORIGIN: N 43°00'00.0000000"

COORDINATE SYSTEM: TRANSVERSE MERCATOR  
ORIGIN NORTING: 0.0000 F

ZONE: DESCHUTES COUNTY  
ORIGIN EASTING: 3,300,000.0000 F

LINEAR UNITS: INTERNATIONAL FOOT  
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17122540  
HORIZONTAL ORDER: SECOND

Latitude: 44°04'22.838087"  
Longitude: 121°14'37.007264"

Northing: 391190.1199  
Easting: 3310440.9653

Convergence: +0°01'39.4621"

Scale Factor: 1.000160124487

Ellipsoid Height: 3472.4028  
Orthometric Height: 3536.7794

Geoid Height: -64.3766

ONE SIGMA ERROR

0.035

0.030

0.035

0.035
NAME OF MARK: 17122600
COUNTY: DESCHUTES
MARK SET BY: UNKNOWN
STATE: OREGON
DATE OF MARK: 1982
COUNTRY: U.S.A.
LOCATION: SECTION 26 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 732

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17122600 HORIZONTAL ORDER: SECOND

Latitude: 44°03'56.754748" ONE
Longitude: 121°15'49.498693" SIGMA
Northing: 388546.5211 ERROR
Easting: 3305148.4538 0.015
Convergence: +0°00'49.0325" 0.014
Scale Factor: 1.000160030269
Ellipsoid Height: 3518.2522 0.022
Orthometric Height: 3582.6124 0.022
Geoid Height: -64.3602
CONTROL MARK DATA

NAME OF MARK: 17122604  COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS  STATE: OREGON
DATE OF MARK: 11/21/88  COUNTRY: U.S.A.
LOCATION: SECTION 26 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 926

MARK SKETCH:

3'1/4" Alum Cap
11 Conc. In
Road Surface

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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17122604  HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.743481"  ONE
Longitude: 121°15'13.443577"  SIGMA
Northing: 368546.1659  ERROR
Easting: 3307781.4281  0.015
Convergence: +0°01'14.1082"  0.013
Scale Factor: 1.000160069145

Ellipsoid Height: 3524.4452  0.028
Orthometric Height: 3588.787  0.038
Geoid Height: -64.3418
**CONTROL MARK DATA**

- **NAME OF MARK:** 17122640
- **COUNTY:** DESCHUTES
- **MARK SET BY:** LS 2033 MICHAEL TOPKINS
- **STATE:** OREGON
- **DATE OF MARK:** 12/15/88
- **COUNTRY:** U.S.A.
- **LOCATION:** SECTION 26 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
- **REFERENCE NUMBER:** OCRR 933

**MARK SKETCH:**

```
3/4 Alum Cap
[Diagram]
```

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE
**DATE:** 1992-1993

**FIELD METHOD:** GPS  **FIELD EQUIPMENT:** TRIMBLE 4000ST  **ADJUSTED WITH:** TRIMNET PLUS

- **DATUM:** HOIZONTAL = 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:** 17122640  **HORIZONTAL ORDER:** FIRST
- **Latitude:** 44°04'22.775083"  **ONE SIGMA ERROR**
- **Longitude:** 121°15'49.518736"
- **Northing:** 391181.8331  **0.016**
- **Easting:** 3305146.3638  **0.014**
- **Convergence:** +0°00'49.0250"
- **Scale Factor:** 1.000160030244
- **Ellipsoid Height:** 3482.4707  **0.027**
- **Orthometric Height:** 3546.8875  **0.037**
- **Geoid Height:** -64.4168
# CONTROL MARK DATA

**NAME OF MARK:** 17122700  
**COUNTY:** DESCHUTES  
**MARK SET BY:** UNKNOWN  
**STATE:** OREGON  
**DATE OF MARK:** 1975+  
**COUNTRY:** U.S.A.  
**LOCATION:** SECTION 27  
TOWNSHIP 17 S.  
RANGE 12 E.  
MERIDIAN: WILLAMETTE  
**REFERENCE NUMBER:** OCRR 734

**MARK SKETCH:**

```
P    •
    •

NEFF RD

17122700

Brass Cap

1 in Mon Box

3' South &
```

---

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

**DATUM:** HOZIONTAL: NAD (83-91)  
VERTICAL: NGVD 29  
COORDINATE SYSTEM: TRANSVERSE MERCATOR  
ZONE: DESCHUTES COUNTY  
LINEAR UNITS: INTERNATIONAL FOOT

**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTHING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.00016000000

## GEODITIC AND MAPPING COORDINATES

**MARK:** 17122700  
**HORIZONTAL ORDER:** SECOND

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<th>Coordinate</th>
<th>Value</th>
<th>Error</th>
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</thead>
<tbody>
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<td>Latitude</td>
<td>44°03'56.423836&quot;</td>
<td>ONE SIGMA</td>
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<tr>
<td>Longitude</td>
<td>121°17'01.534756&quot;</td>
<td>ERROR</td>
</tr>
<tr>
<td>Northing</td>
<td>388512.395</td>
<td>0.010</td>
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<td>Ellipsoid Height</td>
<td>3610.3859</td>
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<td>3674.7902</td>
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<td>Geoid Height</td>
<td>-64.4043</td>
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CONTROL MARK DATA

NAME OF MARK: 17122704
COUNTY: DESCHUTES
MARK SET BY: UNKNOWN
STATE: OREGON
DATE OF MARK: 1975--
COUNTRY: U.S.A.
LOCATION: SECTION 27  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 733

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: HOIZONTAL= NAD (83-91)  CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29  LATITUDE OF ORIGIN: N 43°00'00.000000"  ORIGIN NORTING: 0.0000 F
COORDINATE SYSTEM: TRANSVERSE MERCATOR  ORIGIN EASTING: 3,300,000.0000 F
ZONE: DESCHUTES COUNTY  SCALE ALONG MERIDIAN: 1.00016000000
LINEAR UNITS: INTERNATIONAL FOOT

GEODITIC AND MAPPING COORDINATES

MARK: 17122704  HORIZONTAL ORDER: SECOND

Latitude: 44°03'56.611844"  ONE SIGMA ERROR
Longitude: 121°16'25.535991"
Northing: 389531.5822  0.013
Easting: 3302516.7828  0.020
Convergence: +0°00'23.9691"
Scale Factor: 1.0001600007233
Ellipsoid Height: 3517.9622  0.025
Orthometric Height: 3582.3425  0.025
Geoid Height: -64.3802
CONTROL MARK DATA

NAME OF MARK: 17122740
COUNTY: DESCHUTES

MARK SET BY: LS 2033 MICHAEL TOMPKINS
STATE: OREGON

DATE OF MARK: 12/15/88
COUNTRY: U.S.A.

LOCATION: SECTION 27 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: OCRR 938

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: HOIZONTAL= NAD (83-91)
VERITCAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17122740
HORIZONTAL ORDER: FIRST

Latituude: 44°04'22.437633"
Longitude: 121°17'01.423791"
Northing: 391147.0453
Easting: 3299896.0382
Convergence: -0°00'00.9904"
Scale Factor: 1.000160000012
Ellipsoid Height: 3491.9368
Orthometric Height: 3556.3974
Geoid Height: -64.4605
NAME OF MARK: 17123400
COUNTY: DESCHUTES
MARK SET BY: LS 1068 DAVID BATEMAN
STATE: OREGON
DATE OF MARK: 8/10/87
COUNTRY: U.S.A.
LOCATION: SECTION 34 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 737

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)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.00000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17123400
HORIZONTAL ORDER: SECOND

Latitude: 44°03'04.823275"
Longitude: 121°17'01.465510"
Northing: 383286.354
Easting: 3299892.9531
Convergence: -0°00'01.0190"
Scale Factor: 1.00016000000
Ellipsoid Height: 3592.6757
Orthometric Height: 3657.4567
Geoid Height: -64.781
CONTROL MARK DATA

NAME OF MARK: 17123404
COUNTY: DESCHUTES

MARK SET BY: UNKNOWN
STATE: OREGON

DATE OF MARK: 1970+
COUNTRY: U.S.A.

LOCATION: SECTION 34, TOWNSHIP 17 S., RANGE 12 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRB 739

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: HOIOTINAL= 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17123404
HORIZONTAL ORDER: SECOND

Latitudie: 44°03'04.844655''
Longitude: 121°16'25.208153''
Northing: 383288.668
Easting: 3302541.3386
Convergence: +0°00'24.1909''
Scale Factor: 1.000160007375
Ellipsoid Height: 3601.7434
Orthometric Height: 3666.0028
Geoid Height: -64.2594

ONE SIGMA ERROR
0.014
0.023
0.019
0.019
-64.2594
CONTROL MARK DATA

NAME OF MARK: 17123500
MARK SET BY: LS_1081 JEFFERY KERN
DATE OF MARK: 12/1976
LOCATION: SECTION 35 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 731

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: HOIIZONTAL= 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:
ZONE: DESCHUTES COUNTY ORIGIN EASTING:
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17123500 HORIZONTAL ORDER: SECOND

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<td>Longitude</td>
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<td>Northing</td>
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<td>Geoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: 17123440
MARK SET BY: CENTURY WEST CORP.
DATE OF MARK: 1975
LOCATION: SECTION 34, TOWNSHIP 17 S., RANGE 12 E.
REFERENCE NUMBER: OCRR 735

MARK SKETCH:

PILOT BUTTE
3' BRASS CAP
O.10 IRON PIPE
L.01 LFT

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

DATUM: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17123440  HORIZONTAL ORDER: FIRST

Latitud: 44°03'30.930802"
Longitude: 121°17'01.460548"
Northing: 385930.4904
Easting: 3299893.3286
Convergence: -0°00'01.0157"
Scale Factor: 1.000160000013
Ellipsoid Height: 3923.0177
Orthometric Height: 3987.3618
Geoid Height: -64.3441
ONE SIGMA ERROR
0.011
0.010
0.020
0.033
CONTROL MARK DATA

NAME OF MARK: 17123504
MARK SET BY: UNKNOWN
DATE OF MARK: 1975+
LOCATION: SECTION 35  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 961

MARK SKETCH:

Z" Brass Cap 1A/\nMON Box 12' South C
Bear Creek Drain

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

DATUM: HOIZONTAL= NAD (83-91)
          VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.00000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODIC AND MAPPING COORDINATES

MARK: 17123504  HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.803464"  ONE SIGMA
Longitude: 121°15'12.636731"  ERROR
Northing: 383285.7664  0.013
Easting: 3307842.2532  0.010
Convergence: +0°01'.14.6500"
Scale Factor: 1.000160070231
Ellipsoid Height: 3588.6095  0.019
Orthometric Height: 3652.8348  0.032
Geoid Height: -64.2253
CONTROL MARK DATA

NAME OF MARK: 17123540  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. PUBLIC WORKS  STATE: OREGON
DATE OF MARK: 4/05/88  COUNTRY: U.S.A.
LOCATION: SECTION 35  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRM 738

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17123540  HORIZONTAL ORDER: SECOND

Latitude: 44°03'30.751084"  ONE
Longitude: 121°15'49.523986"  Sigma
Northing: 365912.9  ERROR
Easting: 3305147.2326  0.016
Convergence: +0°00'049.0085"  0.013
Scale Factor: 1.000160030255
Ellipsoid Height: 3546.8667  0.023
Orthometric Height: 3611.1706  0.023
Geoid Height: -64.3039
CONTROL MARK DATA

NAME OF MARK: 17123600
MARK SET BY: LS_2140 THOMAS BLUST
DATE OF MARK: 8/08/91
LOCATION: SECTION 36 TOWNSHIP 17S RANGE 12E MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1070

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

DATUM: HOIZONTAL= 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 NORTING: 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: 17123600 HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.661235" ONE SIGMA ERROR
Longitude: 121°14'36.379111" 0.014
Northing: 383272.482 0.010
Easting: 3310490.6654
Convergence: +0°01'39.8599"
Scale Factor: 1.000160125675
Ellipsoid Height: 3556.5736 0.020
Orthometric Height: 3620.7837 0.032
Geoid Height: -64.2101
**CONTROL MARK DATA**

**NAME OF MARK:** 17123604

**COUNTY:** DESCHUTES

**MARK SET BY:** LS-2033 MICHAEL TOMPKINS

**STATE:** OREGON

**DATE OF MARK:** 11/21/88

**COUNTRY:** U.S.A.

**LOCATION:** SECTION 36 TOWNSHIP 17 S RANGE 12 E MERIDIAN WILLAMETTE

**REFERENCE NUMBER:** QCRR 919

**MARK SKETCH:**

- Bear Creek
- 3 4" Alum Cap
- In Conc Roro Surface

**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:** 1.00016000000

**GEODETIC AND MAPPING COORDINATES**

**MARK:** 17123604

**HORIZONTAL ORDER:** FIRST

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**ONE SIGMA ERROR**

- Latitude: 0.015
- Longitude: 0.011
- Northing: 0.015
- Easting: 0.011
- Convergence: 0.015
- Scale Factor: 0.0000160196324
- Ellipsoid Height: 0.021
- Orthometric Height: 0.033
- Geoid Height: 0.033
CONTROL MARK DATA

NAME OF MARK: 17123640  COUNTY: DESCHUTES
MARK SET BY: J S 2033  MICHAEL TOMPKINS  STATE: OREGON
DATE OF MARK: 12/09/89  COUNTRY: U.S.A.
LOCATION: SECTION 36  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 962

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: HOIZONTAL= 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: 3,300,000.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17123640  HORIZONTAL ORDER: FIRST

Latitude: 44°03'30.704989"  ONE SIGMA ERROR
Longitude: 121°14'36.753349"  0.008
Northing: 385910.1463  0.008
Easting: 3310462.0558  0.007
Convergence: +0°01'39.6127"  
Scale Factor: 1.000160124991  
Ellipsoid Height: 3547.9498  0.015
Orthometric Height: 3612.2165  0.029
Geoid Height: -64.2667
### Control Mark Data

**Name of Mark:** 17130600  
**County:** Deschutes  
**Mark Set By:** Deschutes Co. Surveyor  
**Date of Mark:** 1992  
**Location:** Section 6 Township 17 S. Range 13 E. Meridian: Willamette  
**Reference Number:** OCRR 1195

**Mark Sketch:**

![Mark Sketch](image)

**Data Computed By:** Deschutes County Surveyor's Office  
**Date:** 1992-1993  
**Field Method:** GPS  
**Equipment:** Trimble 4000ST  
**Adjusted With:** TrimNet Plus

**Datum:** HOZONTAL= NAD (83-91)  
**Vertical:** NGVD 29  
**Coordinate System:** Transverse Mercator  
**Zone:** Deschutes County  
**Linear Units:** International Foot

#### Central Meridian: W 121°17'00.000000"  
#### Latitude of Origin: N 43°00'00.000000"  
#### Origin Northing: 0.0000 F  
#### Origin Easting: 3,300,000.0000 F  
#### Scale Along Meridian: 1.000160000000

### Geodetic and Mapping Coordinates

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<th>Horizontal Order: First</th>
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<td><strong>One Signa Error</strong></td>
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<td><strong>Longitude:</strong> 121°13'24.394975&quot;</td>
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<td><strong>Northing:</strong> 409633.0549</td>
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<td><strong>Easting:</strong> 3315729.5166</td>
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<td><strong>Ellipsoid Height:</strong> 3307.7161</td>
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<td><strong>Geoid Height:</strong> -64.6826</td>
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### CONTROL MARK DATA

**NAME OF MARK:** 17130700  
**COUNTY:** DESCHUTES  
**MARK SET BY:** LS_1678  
**STATE:** OREGON  
**DATE OF MARK:** 1980  
**COUNTRY:** U.S.A.  
**LOCATION:** SECTION 7  
**TOWNSHIP 17 S. RANGE 13 E. MERIDIAN:** WILLAMETTE  
**REFERENCE NUMBER:** OCRR 102

**MARK SKETCH:**

```
3" BRASS CAP IN PIPE 41
CONC. UP 0.42
```

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL= NAD (83-91)  
**CENTRAL MERIDIAN:** W 121°17'00.00000"  
**VERTICAL:** NGVD 29  
**LATITUDE OF ORIGIN:** N 43°00'00.00000"  
**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**ORIGIN NORTING:** 0.0000 F  
**ZONE:** DESCHUTES COUNTY  
**ORIGIN EASTING:** 3,300,000.0000 F  
**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

### GEODITIC AND MAPPING COORDINATES

**MARK:** 17130700  
**HORIZONTAL ORDER:** FIRST  

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<td>Geoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: 17130704  COUNTY: DESCHUTES
MARK SET BY: LS.1046  MICHAEL TVE  STATE: OREGON
DATE OF MARK: 08/1978  COUNTRY: U.S.A.
LOCATION: SECTION 7  TOWNSHIP 17 S.  RANGE 13 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3119

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: HOIZONTAL= 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

MARK: 17130704  HORIZONTAL ORDER: FIRST

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<td>Geoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: 17139740
COUNTY: DESCHUTES
MARK SET BY: L.S. 1578 GARY HICKMAN
STATE: OREGON
DATE OF MARK: 1980
COUNTRY: U.S.A.
LOCATION: SECTION 7 TOWNSHIP 17 S RANGE 13 E MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRB 099

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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.0001600100000

MARK: 17139740 HORIZONTAL ORDER: FIRST

Latitude: 44°06'58.883317" ONE
Longitude: 121°13'24.416071" SIGMA
Northing: 406997.4934 ERROR
Easting: 3315729.8952 0.018
Convergence: +0°02'.30.0718" 0.016
Scale Factor: 1.000160282546
Ellipsoid Height: 3289.0582 0.035
Orthometric Height: 3353.6909 0.043
Geoid Height: -64.6327
CONTROL MARK DATA

NAME OF MARK: 17130800
MARK SET BY: LS.1678 GARY HICKMAN
DATE OF MARK: 1980
LOCATION: SECTION 8 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3105

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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'30.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17130800 HORIZONTAL ORDER: FIRST

Latitude: 44°06'32.864865"
Longitude: 121°12'12.227270"
Northing: 404366.8254
Easting: 3320999.6479
Convergence: +0°03'20.2977"
Scale Factor: 1.000160503573
Ellipsoid Height: 3311.5213
Orthometric Height: 3376.0374
Geoid Height: -64.5161

ONE SIGMA ERROR

0.015
0.013
0.026
0.036
CONTROL MARK DATA

NAME OF MARK: 17130804  COUNTY: DESCHUTES
MARK SET BY: LS.1678 GARY HICKMAN  STATE: OREGON
DATE OF MARK: 1980  COUNTRY: U.S.A.
LOCATION: SECTION 8  TOWNSHIP 17 S.  RANGE 13 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3105

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: HOIZONTAL= 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17130804  HORIZONTAL ORDER: FIRST

Latitude: 44°06'32.925601"  ONE
Longitude: 121°11'35.920500"  SIGMA
Northing: 404375.7118  ERROR
Easting: 3323649.0562  0.015
Convergence: +0°03'45.5683"  0.013
Scale Factor: 1.000160638655
Ellipsoid Height: 3319.1952  0.025
Orthometric Height: 3383.6731  0.035
Geoid Height: -64.4778
CONTROL MARK DATA

NAME OF MARK: 17130900
MARK SET BY: LS 0599 JAMES RUSSARD
DATE OF MARK: 3/10/86
LOCATION: SECTION 9 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3109

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17130900 HORIZONTAL ORDER: FIRST

Latitudine: 44°06'32.698838"
Longitude: 121°10'59.533657"
Northing: 404355.8121
Easting: 3326304.3416
Convergence: +0°04'10.8943"
Scale Factor: 1.000160790121
Ellipsoid Height: 3297.102
Orthometric Height: 3361.5449
Geoid Height: -64.4429

ONE SIGMA ERROR
CONTROL MARK DATA

NAME OF MARK: 17131000
COUNTY: DESCHUTES

MARK SET BY: J.S. 0599 JAMES BUSSARD
STATE: OREGON

DATE OF MARK: 03/10/66
COUNTRY: U.S.A.

LOCATION: SECTION 10 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3109

MARK SKETCH:

2" IRON PIPE AT FC. COR LIP. 81'6" FT.

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993

FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HOZINTAL= 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: 17131000 HORIZONTAL ORDER: FIRST

Latitude: 44°06'32.843655" ONE SIGMA
Longitude: 121°09'47.367736" ERROR
Northing: 404377.5259 0.019
Easting: 3331570.4904 0.014
Convergence: +0°05'01.1240"
Scale Factor: 1.000161138155
Ellipsoid Height: 3302.9937 0.034
Orthometric Height: 3367.3602 0.042
Geoid Height: -64.3665
NAME OF MARK: 17131400
MARK SET BY: JAMES BUSSARD
DATE OF MARK: 03/27/70
LOCATION: SECTION 14 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3167

MARK SKETCH:

3" Alum Cap
On Alum Pipe
In Rock Pile
Up 1.2' FT

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

DATUM: HOZINTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTTHING: 0.00000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

MARK: 17131400
HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.931704"
Longitude: 121°08'35.460854"
Northing: 399128.2041
Easting: 3336826.7045
Convergence: +0°05'51.0821"
Scale Factor: 1.000161548695
Ellipsoid Height: 3247.1289
Orthometric Height: 3311.3452
Geoid Height: -64.2163
CONTROL MARK DATA

NAME OF MARK: 17131500
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 6/1981
LOCATION: SECTION 15 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1061

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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131500
HORIZONTAL ORDER: SECOND

Latitude: 44°05'40.672513"
Longitude: 121°09'47.464309"
Northing: 399093.6462
Easting: 3331571.1544
Convergence: +0°05'00.9782"
Scale Factor: 1.000161138207
Ellipsoid Height: 3289.8544
Orthometric Height: 3354.1408
Geoid Height: -64.2864
CONTROL MARK DATA

NAME OF MARK: 17131504
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON

DATE OF MARK: 1/13/91
COUNTRY: U.S.A.

LOCATION: SECTION 15 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: OCRR 1168

MARK SKETCH:

[Diagram of 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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131504
HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.803169"
Longitude: 121°09'11.460341"
Northing: 399110.8732
Easting: 3334199.0944
Convergence: +0°05'26.0317"
Scale Factor: 1.000161335579
Ellipsoid Height: 3256.0795
Orthometric Height: 3320.3341
Geoid Height: -64.2545
CONTROL MARK DATA

NAME OF MARK: 17131600
MARK SET BY: LS 0599 JAMES RUSSARD
DATE OF MARK: 03/10/95
LOCATION: SECTION 16 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3109

MARK SKETCH:

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

DATUM: HOIIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000'
LATITUDE OF ORIGIN: N 43°00'00.000000'
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131600 HORIZONTAL ORDER: FIRST

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<td>Geoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: 17131604  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 1992  COUNTRY: U.S.A.
LOCATION: SECTION 16  TOWNSHIP 17 S.  RANGE 13 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1191

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: 3,300,000.000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131604  HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.609797"  ONE
Longitude: 121°10'23.535647"  SIGMA
Northing: 399083.6127  ERROR
Easting: 3328938.2846  0.014
Convergence: +0°04'35.8780"  0.014
Scale Factor: 1.000160956281
Ellipsoid Height: 3311.2124  0.025
Orthometric Height: 3375.5368  0.035
Geoid Height: -64.3245
### CONTROL MARK DATA

**NAME OF MARK:** 17131640  
**COUNTY:** DESCHUTES  
**MARK SET BY:** LS 0599 JAMES BUSSARD  
**STATE:** OREGON  
**DATE OF MARK:** 03/10/66  
**COUNTRY:** U.S.A.  
**LOCATION:** SECTION 16 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE  
**REFERENCE NUMBER:** CS 3109

**MARK SKETCH:**

![Mark Sketch](image)

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

**DATUM:** HOIZONTAL= 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:** 1.00016000000

### GEODITIC AND MAPPING COORDINATES

**MARK:** 17131640  
**HORIZONTAL ORDER:** FIRST

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CONTROL MARK DATA

NAME OF MARK: 17131700
MARK SET BY: LS 0804 C H KETCHAM
DATE OF MARK: 7/11/88
LOCATION: SECTION 17 TOWNSHIP 17 S RANGE 13 E MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 764

MARK SKETCH:

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

DATUM: HOIZONTAL= 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: 3,300,000.000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131700 HORIZONTAL ORDER: SECOND
Latitude: 44°05'40.717993"
Longitude: 121°12'12.27321"
Northing: 399085.411
Easting: 3321001.4145
Convergence: +0°03'20.2134"
Scale Factor: 1.000160503660
Ellipsoid Height: 3361.5963
Orthometric Height: 3426.0679
Geoid Height: -64.4716
CONTROL MARK DATA

NAME OF MARK: 17131704  COUNTY: DESCHUTES
MARK SET BY: UNKNOWN  STATE: OREGON
DATE OF MARK: 1982  COUNTRY: U.S.A.
LOCATION: SECTION 17  TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3162

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: HOZIONTAL= 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: 0.00000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131704  HORIZONTAL ORDER: FIRST

| Latitude: 44°05'40.631152" | ONE |
| Longitude: 121°11'35.944910" | SIGMA |
| Northing: 399079.352 | ERROR |
| Easting: 3323653.0657 | 0.011 |
| Convergence: +0°03'45.4923" | 0.010 |
| Scale Factor: 1.000160638874 | |
| Ellipsoid Height: 3370.8527 | 0.019 |
| Orthometric Height: 3435.2405 | 0.031 |
| Geoid Height: -64.3878 | |
**CONTROL MARK DATA**

**NAME OF MARK:** 17131740  
**COUNTY:** DESCHUTES

**MARK SET BY:** LS 1046  
**STATE:** OREGON

**DATE OF MARK:** 08/1978  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 17  
**MERIDIAN:** WILLAMETTE

**TOWNSHIP:** 17 S.  
**REFERENCE NUMBER:** CS 3119

---

**MARK SKETCH:**

- 2 1/2" Brass Cap
- @ Ground Level
- 1' North 2' East
- FC. COR.

---

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST

**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOZONTAL= 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 NORTHCING:** 0.0000 F

**ZONE:** DESCHUTES COUNTY  
**ORIGIN EASTING:** 3,300,000.0000 F

**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

---

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17131740  
**HORIZONTAL ORDER:** FIRST

- Latitude: 44°06'06.790673"  
  **ONE**
  **SIGMA**
  **ERROR**

- Longitude: 121°12'12.244837"  
  0.013

- Northing: 401726.0403  
  0.010

- Easting: 3321000.93  
  
- Convergence: +0°03'20.2594"  
  
- Scale Factor: 1.000160503635  
  0.020

- Ellipsoid Height: 3340.8159  
  0.032

- Orthometric Height: 3405.2853  
  
- Geoid Height: -64.4694  
  
CONTROL MARK DATA

NAME OF MARK: 17131800
COUNTY: DESCHUTES
MARK SET BY: LS 1020 GEORGE COLVIN
STATE: OREGON
DATE OF MARK: 3/20/88
COUNTRY: U.S.A.
LOCATION: SECTION 18 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCR 162

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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131800 HORIZONTAL ORDER: SECOND

Latitude: 44°05'40.736815" ONE
Longitude: 121°13'24.624401" SIGMA
Northing: 399082.8356 ERROR
Easting: 3315720.4463 0.037
Convergence: +0°02'29.8682" 0.031
Scale Factor: 1.000160282208
Ellipsoid Height: 3395.9355 0.045
Orthometric Height: 3460.4142 0.045
Geoid Height: -64.4787
CONTROL MARK DATA

NAME OF MARK: 17131804
COUNTY: DESCHUTES

MARK SET BY: LS_1652 ROBERT ROVEY
STATE: OREGON

DATE OF MARK: 1983
COUNTRY: U.S.A.

LOCATION: SECTION 18 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 939

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: HOIZONITAL= NAD (83-91)
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONEx: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131804
HORIZONTAL ORDER: FIRST

Latitude: 44°05'.40.729099"
LONGITUDE: 121°12'.48.439990"
Northing: 399084.1344
Easting: 3318361.5777
Convergence: +0°02'.55.0470"
Scale Factor: 1.000160384999
ELLIPSOID HEIGHT: 3389.0113
ORTHOMETRIC HEIGHT: 3453.4624
GEOID HEIGHT: -64.4511

ONE SIGMA ERROR

0.012
0.010
0.020
0.031
CONTROL MARK DATA

NAME OF MARK: 17131840
MARK SET BY: LS 1020 GEORGE COLVIN
DATE OF MARK: 3/20/88
LOCATION: SECTION 18 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 153

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: HOZONTAL = 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: 17131840 HORIZONTAL ORDER: FIRST

Latitude: 44°06'06.795782"
Longitude: 121°13'24.565454"
Northing: 401722.0773
Easting: 3315722.8306
Convergence: +0°02'29.9288"
Scale Factor: 1.000160282293
Ellipsoid Height: 3375.5863
Orthometric Height: 3440.1217
Geoid Height: -64.5355
CONTROL MARK DATA

NAME OF MARK: 17131900
MARK SET BY: LS.1081 JEFFERY.KERN
DATE OF MARK: 06/1981
LOCATION: SECTION 29 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1058

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)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000" LATITUDE OF ORIGIN: N 43°00'00.000000" ORIGIN NORTING: 0.0000 F ORIGIN EASTING: 3,300,000.0000 F SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131900 HORIZONTAL ORDER: FIRST

Latitude: 44°04'48.504583" ONE SIGMA ERROR Longitude: 121°13'24.357382" 0.011 Northing: 393792.8069 Easting: 3315743.7842 Convergence: +0°02'30.0148" Scale Factor: 1.000160283048 Ellipsoid Height: 3427.5825 0.018 Orthometric Height: 3491.9621 0.030 Geoid Height: -64.3796
CONTROL MARK DATA

NAME OF MARK: 17131904
COUNTY: DESCHUTES

MARK SET BY: LS-1061 JEFFERY KERN
STATE: OREGON

DATE OF MARK: 06/1981
COUNTRY: U.S.A.

LOCATION: SECTION 19, TOWNSHIP 17 S., RANGE 13 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1059

MARK SKETCH:

Ericksen
Road

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993

FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HOI9ONAL: 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17131904 HORIZONTAL ORDER: FIRST

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<th>Latitude</th>
<th>Longitude</th>
<th>Northing</th>
<th>Easting</th>
<th>Convergence</th>
<th>Scale Factor</th>
<th>Ellipsoid Height</th>
<th>Orthometric Height</th>
<th>Geoid Height</th>
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<tbody>
<tr>
<td>44°04'48.506712&quot;</td>
<td>121°12'48.749134&quot;</td>
<td>393795.0694</td>
<td>3316343.4955</td>
<td>+0°02'54.7862&quot;</td>
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<td>3437.1657</td>
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ONE SIGMA ERROR

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<th>Convergence</th>
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<th>Orthometric Height</th>
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GEODETIC AND MAPPING COORDINATES

MARK: 17131904 HORIZONTAL ORDER: FIRST

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<th>Ellipsoid Height</th>
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<th>Geoid Height</th>
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<td>3501.5202</td>
<td>-64.3545</td>
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ONE SIGMA ERROR
CONTROL MARK DATA

NAME OF MARK: 17131940
COUNTY: DESCHUTES

MARK SET BY: UNKNOWN
STATE: OREGON

DATE OF MARK: 1975
COUNTRY: U.S.A.

LOCATION: SECTION 19 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 952

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: HOIZONTAL= 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: 17131940 HORIZONTAL ORDER: FIRST

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<td>Northing</td>
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<td>Easting</td>
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<td>Convergence</td>
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<td>Ellipsoid Height</td>
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<td>Orthometric Height</td>
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**CONTROL MARK DATA**

- **NAME OF MARK:** 17132000
- **COUNTY:** DESCHUTES
- **MARK SET BY:** LS 2033 MICHAEL TOMPKINS
- **DATE OF MARK:** 12/15/88
- **LOCATION:** SECTION 20 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
- **REFERENCE NUMBER:** QCRR 936

**MARK SKETCH:**

- 3/4" ALUM CAP
- CONC. 0.3' BELOW GROUND
- 0.5' EAST OF PAVEMENT

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE
**DATE:** 1992-1993

**FIELD METHOD:** GPS
**FIELD EQUIPMENT:** TRIMBLE 4000ST
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL = NAD (83-91)
**VERTICAL:** NGVD 29
**COORDINATE SYSTEM:** TRANSVERSE MERCATOR
**ZONE:** DESCHUTES COUNTY
**LINEAR UNITS:** INTERNATIONAL FOOT

**CENTRAL MERIDIAN:** W 121°17'00.000000"
**LATITUDE OF ORIGIN:** N 43°00'00.000000"
**ORIGIN NORTING:** 0.0000 F
**ORIGIN EASTING:** 3,300,000.0000 F
**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

- **MARK:** 17132000
- **HORIZONTAL ORDER:** FIRST

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<td>Northing</td>
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<td>Orthometric Height</td>
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<td>Geoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: 17132004
COUNTY: DESCHUTES
MARK SET BY: LS 0930 RICHARD GRAUE
STATE: OREGON
DATE OF MARK: 1973
COUNTRY: U.S.A.
LOCATION: SECTION 20 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3191

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: 3,300,000.000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132004 HORIZONTAL ORDER: FIRST

Latitute: 44°04'48.406877"
Longitude: 121°11'36.109494"
Northing: 393790.1019
Easting: 3323646.8312
Convergence: +0°03'45.3189"
Scale Factor: 1.000160638539
Ellipsoid Height: 3363.7854
Orthometric Height: 3428.0864
Geoid Height: -64.301
CONTROL MARK DATA

NAME OF MARK: 17132040
MARK SET BY: LS-2033, MICHAEL TOMPkins
DATE OF MARK: 12-15-88
LOCATION: SECTION 20, TOWNSHIP 17 S., RANGE 13 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCCR 934

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: HOIZONTAL- NAD (83-91)
        VERTICAL- NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132040
HORIZONTAL ORDER: FIRST

Latitud: 44°05'14.636650''
Longitude: 121°12'12.316021''
Northing: 396443.9065
Easting: 3321000.8613
Convergence: +0°03'20.1576"
Scale Factor: 1.000160503634
Ellipsoid Height: 3398.579
Orthometric Height: 3462.9518
Geoid Height: -64.3728
CONTROL MARK DATA

NAME OF MARK: 17132100
COUNTY: DESCHUTES
MARK SET BY: LS.0980...ED.GRAVES
STATE: OREGON
DATE OF MARK: 10/30/78
COUNTRY: U.S.A.
LOCATION: SECTION 21, TOWNSHIP 17 S., RANGE 13 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3163

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: HOIZONTAL- NAD (83-91)
VERTICAL- NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.00000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132100
HORIZONTAL ORDER: SECOND

Latitude: 44°04'48.542693"
Longitude: 121°10'59.869774"
Northing: 393806.9092
Easting: 3326292.6302
Convergence: +0°04'10.5298"
Scale Factor: 1.000160789423
Ellipsoid Height: 3377.7199
Orthometric Height: 3441.992
Geoid Height: -64.2721
CONTROL MARK DATA

NAME OF MARK: 17132104  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 07/08/91  COUNTRY: U.S.A.
LOCATION: SECTION 21, TOWNSHIP 17 S, RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: QCRR 1065

MARK SKETCH:

3" BRASS CAP IN MASON BOX

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

DATUM: HOZINTONAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132104  HORIZONTAL ORDER: FIRST

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<td>Longitude:</td>
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<td>Northing:</td>
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**CONTROL MARK DATA**

**NAME OF MARK:** 17132140  
**MARK SET BY:** LS 1642, ROBERT KARL  
**DATE OF MARK:** 05/24/82  
**LOCATION:** SECTION 21, TOWNSHIP 17 S, RANGE 13 E, MERIDIAN: WILLAMETTE  
**REFERENCE NUMBER:** CS 3162

**MARK SKETCH:**

![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:** HOIZONTAL= 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:** 3,300,000.000 F  
**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17132140  
**HORIZONTAL ORDER:** FIRST

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<td>Geoid Height</td>
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**ONE SIGMA ERROR**

- Latitude: 0.023
- Longitude: 0.033
CONTROL MARK DATA

NAME OF MARK: 17132200
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO SURVEYOR
STATE: OREGON

DATE OF MARK: 08/08/91
COUNTRY: U.S.A.

LOCATION: SECTION 22
REFERENCE NUMBER: OCRR 1085
TOWNSHIP 17 S.
MERIDIAN: WILLAMETTE
RANGE 13 E.

MARK SKETCH:

3" BRASS CAD
0.6" BELOW GR.
4' E. 20' ED.

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:
ZONE: DESCHUTES COUNTY
ORIGIN EASTING:
LINEAR UNITS: INTERNATIONAL FOOT
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132200
HORIZONTAL ORDER: FIRST

Latitud: 44°04'48.435363"
ONE
Longitude: 121°09'47.399438" SIGMA
Northing: 393803.1118 ERROR
Easting: 3331583.6094

0.013

0.012

0.024

0.034

Convergence: 40°05'00.9447"
Scale Factor: 1.000161139109

Ellipsoid Height: 3320.5459
Orthometric Height: 3384.7585
Geoid Height: -64.2126
CONTROL MARK DATA

NAME OF MARK: 17132204  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 11/19/91  COUNTRY: U.S.A.
LOCATION: SECTION 22  TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1111

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: HOZONTAL- 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132204  HORIZONTAL ORDER: FIRST

Latitude: 44°04'48.583196" ONE
Longitude: 121°09'11.200532" SIGMA
Northing: 393822.1015 ERROR
Easting: 3334226.4213
Convergence: +0°05'26.1273"
Scale Factor: 1.000161337718
Ellipsoid Height: 3293.5255
Orthometric Height: 3357.7063
Geoid Height: -64.1809
# Control Mark Data

**Name of Mark:** 17132240  
**County:** Deschutes  
**Mark Set By:** LS-0599 JAMES BUSSARD  
**Date of Mark:** 03/23/70  
**Location:** Section 22, Township 17 S, Range 13 E, Meridian: Willamette  
**Reference Number:** CS 3167

**Mark Sketch:**

![Mark Sketch Image]

---

**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)  
**Vertical:** NGVD 29  
**Coordinate System:** Transverse Mercator  
**Zone:** Deschutes County  
**Linear Units:** International Foot

**Geodetic and Mapping Coordinates**

**Mark:** 17132240  
**Horizontal Order:** First

<table>
<thead>
<tr>
<th>Latitude</th>
<th>Longitude</th>
<th>Northing</th>
<th>Easting</th>
<th>Convergence</th>
<th>Scale Factor</th>
<th>Ellipsoid Height</th>
<th>Orthometric Height</th>
<th>Geoid Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>44°05'14.554327&quot;</td>
<td>121°09'47.432242&quot;</td>
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<td>3311.6771</td>
<td>3375.9264</td>
<td>-64.2494</td>
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</tbody>
</table>

---

**Central Meridian:** W 121°17'00.000000"  
**Latitude of Origin:** N 43°00'00.000000"  
**Origin Northing:** 0.0000 F  
**Origin Easting:** 3,300,000.0000 F  
**Scale Along Meridian:** 1.00016000000
**CONTROL MARK DATA**

**NAME OF MARK:** 17132300  
**COUNTY:** DESCHUTES

**MARK SET BY:** DESCHUTES CO. SURVEYOR  
**STATE:** OREGON

**DATE OF MARK:** 11/21/91  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 23  
**REFERENCE NUMBER:** QCR 1110  
**TOWNSHIP:** 17 S.  
**MERIDIAN:** WILLAMETTE  
**RANGE:** 13 E.

**MARK SKETCH:**

![Mark Sketch Image]

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOZONTAL= NAD (83-91)  
**VERTICAL=** NGVD 29  
**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**ZONE:** DESCHUTES COUNTY  
**LINEAR UNITS:** INTERNATIONAL FOOT

**CENTRAL MERIDIAN:** W 121°17'00.00000"  
**LATITUDE OF ORIGIN:** N 43°00'00.00000"  
**ORIGIN NORTING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17132300  
**HORIZONTAL ORDER:** FIRST

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<tr>
<th>Coordinate Type</th>
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<tbody>
<tr>
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<tr>
<td>Longitude</td>
<td>121°08'34.931345&quot;</td>
<td>ERROR</td>
</tr>
<tr>
<td>Northing</td>
<td>393833.0815</td>
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<tr>
<td>Easting</td>
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<td>Scale Factor</td>
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<tr>
<td>Ellipsoid Height</td>
<td>3303.9622</td>
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<tr>
<td>Orthometric Height</td>
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<tr>
<td>Geoid Height</td>
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</table>
NAME OF MARK: 17133240
COUNTY: DESCHUTES
MARK SET BY: LS-0599 JAMES BUSSARD
STATE: OREGON
DATE OF MARK: 03/23/70
COUNTRY: U.S.A.
LOCATION: SECTION 23 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 2167

MARK SKETCH:

3" Alum Cap
On Alum Pipe
Up 0.8 ft.
24' S. FC.

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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17133240 HORIZONTAL ORDER: FIRST

Latitud: 44°05'14.823348"
Longitude: 121°08'35.234503"
Northing: 396483.9948 0.019
Easting: 3336847.7285 0.016
Convergence: +0°05'51.1937"
Scale Factor: 1.000161550467
Ellipsoid Height: 3265.5008 0.033
Orthometric Height: 3329.6835 0.041
Geoid Height: -64.1827
CONTROL MARK DATA

NAME OF MARK: 17132600
MARK SET BY: LS.0454. GENE HAWTHORNE
DATE OF MARK: 1968
LOCATION: SECTION 26, TOWNSHIP 17 S, RANGE 13 E, MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3303

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)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132600
HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.523503"
Longitude: 121°08'34.992461"
Northing: 388553.8873
Easting: 3336878.9035
Convergence: +0°05'51.2244"
Scale Factor: 1.000161553099
Ellipsoid Height: 3361.8922
Orthometric Height: 3425.9776
Geoid Height: -64.0853
CONTROL MARK DATA

NAME OF MARK: 17132640
MARK SET BY: DESCHUTES CO. SURVEYOR
DATE OF MARK: 1992
LOCATION: SECTION 26 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCCR 1197

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: HOIZONTAL= NAD (83-91) VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: 17132640
HORIZONTAL ORDER: FIRST

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<th>Parameter</th>
<th>Value</th>
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ONE SIGMA ERROR

0.017
0.015
+0.051
0.031
0.039
CONTROL MARK DATA

NAME OF MARK: 17132700  COUNTY: DESCHUTES
MARK SET BY: LS 0792  RAYMOND OMAN  STATE: OREGON
DATE OF MARK: 1989  COUNTRY: U.S.A.
LOCATION: SECTION 27  TOWNSHIP 17 S.  RANGE 13 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 964

MARK SKETCH:

3/4" ALUM. CAD. IN CLOCK AT EAD LEVEL 45' NORTH ALFALFA RD

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE  DATE: 1992-1993

FIELD METHOD: GPS  FIELD EQUIPMENT: TRIMBLE 4000ST  ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132700  HORIZONTAL ORDER: FIRST

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<tbody>
<tr>
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<td>Longitude:</td>
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</table>
CONTROL MARK DATA

NAME OF MARK: 17132740

MARK SET BY: LS.0702 RAYMOND OHAN

DATE OF MARK: 1989

LOCATION: SECTION 27 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: OCRR 963

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)

VERTICAL= NGVD 29

COORDINATE SYSTEM: TRANSVERSE MERCATOR

ZONE: DESCHUTES COUNTY

LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"

LATITUDE OF ORIGIN: N 43°00'00.000000"

ORIGIN NORTING:

3,300,000.000 F

ORIGIN EASTING: 0.0000 F

SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132740 HORIZONTAL ORDER: FIRST

Latitude: 44°04'22.321670" ONE

Longitude: 121°09'47.596348" SIGMA

Northing: 391158.3195 ERROR

Easting: 3331572.944 0.014

Convergence: +0°05'00.7670" 0.014

Scale Factor: 1.000161138341

Ellipsoid Height: 3377.1547 0.027

Orthometric Height: 3441.3337 0.036

Geoid Height: -64.179
CONTROL MARK DATA

NAME OF MARK: 17132800  COUNTY: DESCHUTES
MARK SET BY: LS.0454 GENE HAWTHORNE  STATE: OREGON
DATE OF MARK: 02/21/68  COUNTRY: U.S.A.
LOCATION: SECTION 28  TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3303

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: HOZINTAL= NAD (83-91)  CENTRAL MERIDIAN: W 121°17'00.000000"
  VERTCAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132800  HORIZONTAL ORDER: FIRST

Latidude: 44°03'56.407480"  ONE SIGMA
Longitude: 121°11'00.046621"  ERROR
Northing: 388526.6898  0.037
Easting: 3326286.1282  0.042
Convergence: +0°04'10.3414"  
Scale Factor: 1.000160789035
Ellipsoid Height: 3418.3112  0.044
Orthometric Height: 3482.5034  0.044
Geoid Height: -64.1922
CONTROL MARK DATA

NAME OF MARK: 17132804
COUNTY: DESCHUTES

MARK SET BY: L.S.0454........GENE HAWTHORNE
STATE: OREGON

DATE OF MARK: 02/21/68
COUNTRY: U.S.A.

LOCATION: SECTION 28 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3303

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: HOIZONTAL= 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: 17132804 HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.427913" ONE SIGMA ERROR
Longitude: 121°10'23.866820" 0.012
Northing: 388532.1271
Easting: 3328928.209 0.012
Convergence: +0°04'35.5038"
Scale Factor: 1.000160955622
Ellipsoid Height: 3416.0923 0.022
Orthometric Height: 3480.2563 0.033
Geoid Height: -64.164
CONTROL MARK DATA

NAME OF MARK: 17132840
MARK SET BY: LS.0454...GENE.HAWTHORNE
DATE OF MARK: 02/21/68
LOCATION: SECTION 28 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3303

MARK SKETCH:

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

DATUM: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT
CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: 17132840
HORIZONTAL ORDER: FIRST

Latitude: 44°04'22.467069"
Longitude: 121°11'00.015136"
Northing: 391165.9807
Easting: 3326285.2237
Convergence: +0°04'10.3959"
Scale Factor: 1.000160788979
Ellipsoid Height: 3373.1292
Orthometric Height: 3437.3649
Geoid Height: -64.2358

ONE SIGMA ERROR
0.015
0.014
0.027
0.036
CONTROL MARK DATA

NAME OF MARK: 17132900  COUNTY: DESCHUTES
MARK SET BY: IS 2033 MICHAEL TOMPKINS  STATE: OREGON
DATE OF MARK: 12/14/88  COUNTRY: U.S.A.
LOCATION: SECTION 29 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 927

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: HOIZONTAL= 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: 17132900  HORIZONTAL ORDER: SECOND

Latitude: 44°03'56.358875"  ONE SIGMA ERROR
Longitude: 121°12'12.513892"  0.039
Northing: 388515.9908  0.024
Easting: 3320994.1031  0.036
Convergence: +0°03'19.9415"
Scale Factor: 1.000160503312
Ellipsoid Height: 3474.4801  0.036
Orthometric Height: 3538.7194  0.036
Geoid Height: -64.2393
CONTROL MARK DATA

NAME OF MARK: 17132904
MARK SET BY: LS 2033  MICHAEL TOMPKINS
DATE OF MARK: 11/21/88
LOCATION: SECTION 29  TOWNSHIP 17 S.  RANGE 13 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 921

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: HOIIZONTAL= NAD (83-91)  VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17132904  HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.385277"
Longitude: 121°11'36.282510"
Northing: 388521.3912
Easting: 3323639.9511
Convergence: +0°03'45.1399"
Scale Factor: 1.000160638170
Ellipsoid Height: 3434.5716
Orthometric Height: 3498.7891
Geoid Height: -64.2175
CONTROL MARK DATA

NAME OF MARK: 17132940
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 07/19/91
COUNTRY: U.S.A.
LOCATION: SECTION 29 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1067

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993
FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS
DATUM: HOIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29 LATITUDE OF ORIGIN: N 43°09'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: 17132940 HORIZONTAL ORDER: FIRST
Latitute: 44°04'22.405914" ONE SIGMA ERROR
Longitude: 121°12'12.466197"
Northing: 391154.0112 0.014
Easting: 3320995.0284 0.012
Convergence: +0°03'20.0008"
Scale Factor: 1.000160503356
Ellipsoid Height: 3418.2485 0.023
Orthometric Height: 3482.5345 0.033
Geoid Height: -64.286
CONTROL MARK DATA

NAME OF MARK: 17133000
MARK SET BY: LS 2033 MICHAEL TOMPKINS
DATE OF MARK: 11/21/88
LOCATION: SECTION 30 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 923

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: HOIZONTAL= NAD (83-91) VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000" LATITUDE OF ORIGIN: N 43°00'00.000000" ORIGIN NORthing: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17133000 HORIZONTAL ORDER: SECOND

Latitude: 44°03'56.454799" ONE SIGMA ERROR
Longitude: 121°13'24.300684"
Northing: 388521.2588
Easting: 3315751.7581
Convergence: +0°02'30.0151"
Scale Factor: 1.00016028335
Ellipsoid Height: 3497.7821
Orthometric Height: 3562.065
Geoid Height: -64.2829
CONTROL MARK DATA

NAME OF MARK: 17133004  COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS  STATE: OREGON
DATE OF MARK: 11/21/88  COUNTRY: U.S.A.
LOCATION: SECTION 30 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 922

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: HOZINTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17133004  HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.408396"  ONE
Longitude: 121°12'48.677995"  SIGMA
Northing: 388518.6073  ERROR
Easting: 3318353.1611  0.013
Convergence: +0°02'54.7901"  0.011
Scale Factor: 1.000160384649
Ellipsoid Height: 3465.6856  0.021
Orthometric Height: 3529.9467  0.033
Geoid Height: -64.2611
CONTROL MARK DATA

NAME OF MARK: 17133040
COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS
STATE: OREGON
DATE OF MARK: 12/13/88
COUNTRY: U.S.A.
LOCATION: SECTION 30 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 929

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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: 17133040 HORIZONTAL ORDER: FIRST

Latitude: 44°04'22.438291" ONE
Longitude: 121°13'24.350574" SIGMA
Northing: 391152.8371 ERROR
Easting: 3315746.2012 0.011
Convergence: +0°02'30.0000" 0.009
Scale Factor: 1.000160283135
Ellipsoid Height: 3466.5481 0.019
Orthometric Height: 3530.8809 0.031
Geoid Height: -64.3329
# CONTROL MARK DATA

**NAME OF MARK:** 17133100  
**COUNTY:** DESCHUTES  
**MARK SET BY:** LS 2033 MICHAEL TOMPKINS  
**STATE:** OREGON  
**DATE OF MARK:** 11/21/88  
**COUNTRY:** U.S.A.  
**LOCATION:** SECTION 31  
TOWNSHIP 17 S.  
RANGE 13 E.  
**MERIDIAN:** WILLAMETTE  
**REFERENCE NUMBER:** OCRR 918

![Mark Sketch]

**MARK SKETCH:**

**3/4" ALUM CAP IN CONC.**  
**E & E ROAD LEVEL**

**B E A R C R E E K**  
**R O A D**

---

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR’S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL= NAD (83-91)  
**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**ZONE:** DESCHUTES COUNTY  
**LINEAR UNITS:** INTERNATIONAL FOOT  
**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.00016000000

---

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17133100  
**HORIZONTAL ORDER:** FIRST

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CONTROL MARK DATA

NAME OF MARK: 17133104  COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKIN  STATE: OREGON
DATE OF MARK: 11/21/88  COUNTRY: U.S.A.
LOCATION: SECTION 31 TOWNSHIP 17S. RANGE 13E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 932

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: HOIZONTAL= 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 NORTHERN: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17133104  HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.175388"  ONE SIGMA ERROR
Longitude: 121°12'48.566081"  0.016
Northing: 363228.5197  0.011
Easting: 3318365.8181
Convergence: +0°02'54.8221"
Scale Factor: 1.000160385181
Ellipsoid Height: 3525.4798  0.023
Orthometric Height: 3589.6377  0.034
Geoid Height: -64.1579
CONTROL MARK DATA

NAME OF MARK: 17133140  COUNTRY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS  STATE: OREGON
DATE OF MARK: 12/13/88  COUNTRY: U.S.A.
LOCATION: SECTION 31  TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 930

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: HOIIZONTAL= 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: INTERNATION FOOT  SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES
MARK: 17133140  HORIZONTAL ORDER: FIRST

Latitude: 44°03'30.326335"  ONE SIGMA ERROR
Longitude: 121°13'24.449570"  0.011
Northing: 385874.9905  0.009
Easting: 3315742.8086  0.018
Convergence: +0°02'.29.8920"  0.030
Scale Factor: 1.000160283014
Ellipsoid Height: 3520.6776
Orthometric Height: 3584.9073
Geoid Height: -64.2297
CONTROL MARK DATA

NAME OF MARK: 17133200
COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS
STATE: OREGON
DATE OF MARK: 11/21/88
COUNTRY: U.S.A.
LOCATION: SECTION 32 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 917

MARK SKETCH:

3'4'' ALUM CAP IN CONC.
IN & 4 ROAD LEVEL

BEAR CREEK ROAD

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 NORTING: 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: 17133200
HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.151849''
Longitude: 121°12'12.387355''
Northing: 383228.5367
Easting: 3321008.4707
Convergence: +0°03'19.9772''
Scale Factor: 1.000160504003
Ellipsoid Height: 3505.2685
Orthometric Height: 3569.4079
Geoid Height: -64.1394
CONTROL MARK DATA

NAME OF MARK: 17133204
COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS
STATE: OREGON
DATE OF MARK: 11/21/88
COUNTRY: U.S.A.
LOCATION: SECTION 32 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 916

MARK SKETCH:

3/4" ALUM CAP IN CONC. AT ROAD LEVEL
BARE CREEK

CB 14 PK NAIL IN PAVEMENT

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

DATUM: HOIZONTAL= NAD (83-91) CENTRAL MERIDIAN: W 121° 17'00.000000" LATITUDE OF ORIGIN: N 43° 00'00.000000"
VERTICAL= NGVD 29 ORIGIN NORTING: 0.0000 F
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN EASTING: 3,300,000.000 F
ZONE: DESCHUTES COUNTY SCALE ALONG MERIDIAN: 1.00016000000
LINEAR UNITS: INTERNATIONAL FOOT

GEODITIC AND MAPPING COORDINATES

MARK: 17133204 HORIZONTAL ORDER: SECOND

Latitude: 44° 03'04.251404"
Longitude: 121° 11'36.194942"
Northing: 383241.3437 0.018
Easting: 3323652.1099 0.045
Convergence: +0° 03'45.1420"
Scale Factor: 1.000160638828
Ellipsoid Height: 3484.2266 0.041
Orthometric Height: 3548.3475 0.041
Geoid Height: -64.1208
CONTROL MARK DATA

NAME OF MARK: 17133240
COUNTY: DESCHUTES
MARK SET BY: LS 2033 MICHAEL TOMPKINS
STATE: OREGON
DATE OF MARK: 12/13/88
COUNTRY: U.S.A.
LOCATION: SECTION 32 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 931

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17133240 HORIZONTAL ORDER: SECOND

Latitude: 44°03'30.227940" ONE SIGMA
Longitude: 121°12'12.447912" ERROR
Northing: 385869.485 0.042
Easting: 3321001.4872 0.021
Convergence: 4°03'19.9613"
Scale Factor: 1.000160503667
Ellipsoid Height: 3488.2015 0.042
Orthometric Height: 3552.391 0.042
Geoid Height: -64.1895
CONTROL MARK DATA

NAME OF MARK: 17133240a
COUNTY: DESCHUTES
MARK SET BY: PE ??? HUDDSON
STATE: OREGON
DATE OF MARK: 06/19/63
COUNTRY: U.S.A.
LOCATION: SECTION 24 TOWNSHIP 17 S RANGE 13 E MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3226

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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

GEODETIC AND MAPPING COORDINATES

MARK: 17133240a
HORIZONTAL ORDER: SECOND

Latitude: 44°03'30.262334"
Longitude: 121°12'12.305339"
Northing: 385872.9785
Easting: 3321011.8967
Convergence: +0°03'20.0604"
Scale Factor: 1.000160504167
Ellipsoid Height: 3488.0116
Orthometric Height: 3552.2011
Geoid Height: -64.1895

ONE SIGMA ERROR
0.043 0.017 0.042 0.042
CONTROL MARK DATA

NAME OF MARK: 17133300
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON

DATE OF MARK: 02/19/92
COUNTRY: U.S.A.

LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1116

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: HOZIONTAL: NAD (83-91) CENTRAL MERIDIAN: W 121°17'00.000000 N LATITUDE OF ORIGIN: N 43°00'00.000000
VERTICAL: NGVD 29 LATITUDE OF ORIGIN: 0.00000 F
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODETIC AND MAPPING COORDINATES

MARK: 17133300 HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.349272" ONE
Longitude: 121°11'00.002865" SIGMA
Northing: 383254.3025 ERROR
Easting: 3326295.7225 0.014
Convergence: +0°04'10.3065" 0.013
Scale Factor: 1.000160789614
Ellipsoid Height: 3509.2531 0.024
Orthometric Height: 3573.3554 0.035
Geoid Height: -64.1022
CONTROL MARK DATA

NAME OF MARK: 17133304
COUNTY: DESCHUTES

MARK SET BY: LS 0454 GENE HAWTHORNE
STATE: OREGON

DATE OF MARK: 02/21/68
COUNTRY: U.S.A.

LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3303

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17133304 HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.363590" ONE SIGMA ERROR
Longitude: 121°10'23.925678" 0.014
Northing: 383259.1108 0.014
Easting: 3328930.9519
Convergence: +0°04'35.3911"
Scale Factor: 1.000160955807
Ellipsoid Height: 3488.74 0.026
Orthometric Height: 3552.8172 0.036
Geoid Height: -64.0771
CONTROL MARK DATA

NAME OF MARK: 17133340
COUNTY: DESCHUTES
MARK SET BY: LS 0454 GENE HAWTHORNE
STATE: OREGON
DATE OF MARK: 02/21/68
COUNTRY: U.S.A.
LOCATION: SECTION 33 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 3303

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: HOIZONTAL= 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: 17133340 HORIZONTAL ORDER: FIRST

Latitude: 44°03'30.323479" ONE SIGMA
Longitude: 121°10'59.994933" ERROR
Northing: 385884.9373 0.014
Easting: 3326293.1093 0.014
Convergence: +0°04'10.3446"
Scale Factor: 1.000160789455
Ellipsoid Height: 3467.034 0.025
Orthometric Height: 3531.1797 0.035
Geoid Height: -64.1457
**CONTROL MARK DATA**

**NAME OF MARK:** 17133400  
**COUNTY:** Deschutes

**MARK SET BY:** Deschutes Co. Surveyor  
**STATE:** Oregon

**DATE OF MARK:** 07/25/91  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 34  
**TOWNSHIP 17 S.**  
**RANGE 13 E.**  
**MERIDIAN:** Willamette

**REFERENCE NUMBER:** OCRR 1080

**MARK SKETCH:**

![Sketch of control mark location]

**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)  
**Vertical = NGVD 29**

**COordinate System:** Transverse Mercator  
**Zone:** Deschutes County

**LINEAR UNITS:** International Foot  
**SCALE ALONG MERIDIAN:** 1.00016000000

**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"

**ORIGIN NORTTHING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17133400  
**HORIZONTAL ORDER:** FIRST

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<td>Geoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: 17133404  COUNTY: DESCHUTES
MARK SET BY: LS 0687  RICHARD HANKINS  STATE: OREGON
DATE OF MARK: 09/26/69  COUNTRY: U.S.A.
LOCATION: SECTION 34  TOWNSHIP 17 S.  RANGE 13 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: CS 4212

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: HOIZONTAL= 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: 17133404  HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.371243"  ONE
Longitude: 121°09'11.687830"  SIGMA
Northing: 383267.5733  ERROR
Easting: 3334207.5105  0.015
Convergence: +0°05'25.6182"  0.016
Scale Factor: 1.000161336250
Ellipsoid Height: 3472.5382  0.027
Orthometric Height: 3536.5717  0.037
Geoid Height: -64.0335
CONTROL MARK DATA

NAME OF MARK: 17133440
MARK SET BY: DESCHUTES CO. SURVEYOR
DATE OF MARK: 7/19/91
LOCATION: SECTION 34 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1064

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: 17133440 HORIZONTAL ORDER: FIRST

Latitude: 44°03'30.357753" ONE SIGMA ERROR
Longitude: 121°09'47.721613"
Northing: 365895.4581 0.011
Easting: 3331571.6143 0.012
Convergence: +0°05'00.6030"
Scale Factor: 1.000161138249
Ellipsoid Height: 3450.3042 0.021
Orthometric Height: 3514.403 0.033
Geoid Height: -64.0987
**CONTROL MARK DATA**

**NAME OF MARK:** 17133500  
**COUNTY:** DESCHUTES

**MARK SET BY:** LS 0687  
**STATE:** OREGON

**DATE OF MARK:** 09/26/69  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 35  
**TOWNSHIP 17 S.**  
**RANGE 13 E.**  
**MERIDIAN:** WILLAMETTE

**REFERENCE NUMBER:** CS 4212

**MARK SKETCH:**

```
5/8" 1/2 0.2' Below Rd
```

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIZONTAL= 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:** 3,300,000.000 F

**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** 17133500  
**HORIZONTAL ORDER:** FIRST

- **Latitude:** 44°03'.04.351778"  
- **Longitude:** 121°08'.35.548275"
- **Northing:** 383269.9299  
- **Easting:** 3336847.3007
- **Convergence:** +0°05'.50.7462"
- **Scale Factor:** 1.000161550444
- **Ellipsoid Height:** 3432.8454  
- **Orthometric Height:** 3496.8571
- **Geoid Height:** -64.0117
CONTROL MARK DATA

NAME OF MARK: 17133540

MARK SET BY: DESCHUTES CO. SURVEYOR

DATE OF MARK: 02/19/92

LOCATION: SECTION 35 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: OCRR 1115

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: HOIZONTAL= 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: 1.00016000000

GEODETIC AND MAPPING COORDINATES

MARK: 17133540 HORIZONTAL ORDER: FIRST

Latitude: 44°03'30.435367" ONE SIGMA ERROR
Longitude: 121°08'35.073786" 0.017
Northing: 385911.7011
Easting: 3336877.4626 0.016
Convergence: +0°05'51.1220"
Scale Factor: 1.000161552981
Ellipsoid Height: 3398.143 0.030
Orthometric Height: 3462.1948 0.039
Geoid Height: -64.0518
CONTROL MARK DATA

NAME OF MARK: 17141800
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON

DATE OF MARK: 1992
COUNTRY: U.S.A.

LOCATION: SECTION 10 TOWNSHIP 17 S. RANGE 14 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1192

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: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17141800
HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.763126"
Longlitude: 121°06'10.606878"
Northing: 399131.7103
Easting: 3347399.7473
Convergence: +0°07'31.8783"
Scale Factor: 1.000162565622
Ellipsoid Height: 3276.575
Orthometric Height: 3340.622
Geoid Height: -64.047

ONE SIGMA ERROR
0.022
0.019
0.044
0.051
CONTROL MARK DATA

NAME OF MARK: 17143100  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 1992  COUNTRY: U.S.A.
LOCATION: SECTION 31  TOWNSHIP 17 S. RANGE 14 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: OCRR 1190

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: HOIZONTAL= NAD (83-91)  CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29  LATITUDE OF ORIGIN: N 43°09'00.000000"
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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: 17143100  HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.235875"  ONE SIGMA
Longitude: 121°06'11.072639"  ERROR
Northing: 383278.7065  0.026
Easting: 3347400.4426  0.027
Convergence: +0°07'31.2004"
Scale Factor: 1.000162565723
Ellipsoid Height: 3379.9701  0.057
Orthometric Height: 3443.9044  0.062
Geoid Height: -63.9343
CONTROL MARK DATA

NAME OF MARK: AE60
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 25 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC

COUNTY: DESCHUTES
STATE: OREGON
COUNTRY: U.S.A.

MARK SKETCH:

AE 60
3¹/₄" Alum Cap
in a metal box

1713300
3¹/₄" Alum Cap in
conc. 200 level

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

DATUM: HOI ZONTAL= 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: AE60 HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.577271" ONE SIGMA ERROR
Longitude: 121°13'24.586149"
Northing: 388533.6474 0.011
Easting: 3315730.9026 0.010
Convergence: +0°02'.29.8167"
Scale Factor: 1.000160282586
Ellipsoid Height: 3497.4123 0.020
Orthometric Height: 3561.6952 0.032
Geoid Height: -64.2829
CONTROL MARK DATA

NAME OF MARK: BA50
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 13 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 1

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)
       VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: BA50
HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.982770"
Longitude: 121°13'54.925410"
Northing: 399106.252
Easting: 3313508.7346
Convergence: +0°02'08.7835"
Scale Factor: 1.000160208386
Ellipsoid Height: 3398.674
Orthometric Height: 3463.1814
Geoid Height: -64.5075

ONE SIGMA ERROR
CONTROL MARK DATA

NAME OF MARK: AE70
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 1 TOWNSHIP 17 S. RANGE 12 E.
REFERENCE NUMBER: DGMC 1

MARK SKETCH:

NEFF Road

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993

FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIZONTAL= NAD (63-91) 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: AE70 HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.256241"
Longitude: 121°13'55.646152"
Northing: 388499.6052
Easting: 3313462.7219
Convergence: +0°02'08.2148"
Scale Factor: 1.000160206971
Ellipsoid Height: 3519.5432
Orthometric Height: 3583.8411
Geoid Height: -64.2979
CONTROL MARK DATA

NAME OF MARK: AE80
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 35 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 1

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: HOIIZONTAL = NAD (83-91) CENTRAL MERIDIAN: W 121º17'00.000000"
VERTICAL = NGVD 29 LATITUDE OF ORIGIN: N 43º00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCATOR ORIGIN NORTING: 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: AE80 HORIZONTAL ORDER: FIRST

Latitude: 44º03'56.643155" ONE
Longitude: 121º14'37.452937:" SIGMA
Northing: 388537.1088 ERROR
Easting: 3310409.6986 0.012
Convergence: +0º01'39.1391"
Scale Factor: 1.000160123743
Ellipsoid Height: 3520.8345 0.020
Orthometric Height: 3585.1578 0.032
Geoid Height: -64.3233
CONTROL MARK DATA

NAME OF MARK: BA40
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 23 TOWNSHIP 17 S. RANGE 12 E.
REFERENCE NUMBER: DGMC 1

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: 1.00016000000

GEODITHIC AND MAPPING COORDINATES

MARK: BA40 HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.718601'' ONE
Longitude: 121°14'36.850794'' SIGMA
Northing: 399077.8028 ERROR
Easting: 3310448.5819 0.013
Convergence: +0°01'39.6098'' 0.011
Scale Factor: 1.000160124668
Ellipsoid Height: 3373.624 0.022
Orthometric Height: 3438.16 0.033
Geoid Height: -64.536
NAME OF MARK: BA60
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 19 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 1

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: HOIIZONTAL= NAD (83-91) VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES
MARK: BA60 HORIZONTAL ORDER: FIRST

Latitude: 44°05'40.518975"
Longitude: 121°13'24.363734"
Northing: 399060.7857
Easting: 3315738.0288
Convergence: +0°02'30.0355"
Scale Factor: 1.000160282840
Ellipsoid Height: 3395.7534
Orthometric Height: 3460.2329
Geoid Height: -64.4795
CONTROL MARK DATA

NAME OF MARK: CB01  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 1992  COUNTRY: U.S.A.
LOCATION: SECTION 16  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGN 7

MARK SKETCH:

![MARK SKETCH Diagram]

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR’S OFFICE  DATE: 1992-1993

FIELD METHOD: GPS  FIELD EQUIPMENT: TRIMBLE 4000ST  ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: CB01  HORIZONTAL ORDER: FIRST

Latitude: 44°06'32.652797"  ONE SIGMA ERROR
Longitude: 121°17'02.568844"  0.012
Northing: 404335.152  0.009
Easting: 3299812.5435  0.009
Convergence: -0°00'01.7880"  0.021
Scale Factor: 1.000160000040  0.034
Ellipsoid Height: 3397.9612
Orthometric Height: 3462.711
Geoid Height: -64.7498
CONTROL MARK DATA

NAME OF MARK: CB02  COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR  STATE: OREGON
DATE OF MARK: 1992  COUNTRY: U.S.A.
LOCATION: SECTION 10  TOWNSHIP 17 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: HOIERTAL= 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 NORTING:
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: CB02  HORIZONTAL ORDER: FIRST

Latitude:  44°06'34.938716"  ONE SIGMA ERROR
Longitude: 121°16'22.707156"  0.012
Northing:  404566.8395
Easting:  3302721.3454  0.011
Convergence:  +0°00'25.9571"
Scale Factor:  1.000160008457
Ellipsoid Height:  3400.8831  0.022
Orthometric Height:  3465.6071  0.034
Geoid Height:  -84.724
**CONTROL MARK DATA**

**NAME OF MARK:** CB03  
**COUNTY:** DESCHUTES

**MARK SET BY:** DESCHUTES CO. SURVEYOR  
**STATE:** OREGON

**DATE OF MARK:** 1992  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 10  TOWNSHIP 17 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE

**REFERENCE NUMBER:** DGMC 7

**MARK SKETCH:**

```
Rock A
CB03
1/2" R: 0.145

2 1/2" Beas Cap
On 2" Iron Pipe
@ Ground Level

10' Gravel Rd.
```

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMINET PLUS

**DATUM:** HOIZONTAL: NAD (83-91)  
**VERTICAL:** NGVD 29

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR  
**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**LATITUDE OF ORIGIN:** N 43°00'00.000000"  
**ORIGIN NORTHING:** 0.0000 F  
**ORIGIN EASTING:** 3,300,000.0000 F  
**SCALE ALONG MERIDIAN:** 1.00016000000

**LINEAR UNITS:** INTERNATIONAL FOOT

**MARK:** CB03  
**HORIZONTAL ORDER:** FIRST

- **Latitude:** 44°06'34.344780"
- **Longitude:** 121°15'49.998510"
- **Northing:** 404507.118  
  **Easting:** 3305108.1853  
  **Convergence:** +0°00'48.7233"
- **Scale Factor:** 1.000160029797
- **Ellipsoid Height:** 3377.0975  
  **Orthometric Height:** 3441.8  
  **Geoid Height:** -64.7025

**GEODITIC AND MAPPING COORDINATES**
CONTROL MARK DATA

NAME OF MARK: CB04
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1992
COUNTRY: U.S.A.
LOCATION: SECTION 3, TOWNSHIP 17 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: HOIZONTAL = 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: 0.00000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: CB04 HORIZONTAL ORDER: FIRST

Latitude: 44°08'17.360059"
Longitude: 121°15'50.005241"
Northing: 414940.4978
Easting: 3305105.2292
Convergence: +0°00'.48.7437"
Scale Factor: 1.0001600029762
Ellipsoid Height: 3247.42
Orthometric Height: 3312.3456
Geoid Height: -64.9256
**CONTROL MARK DATA**

**NAME OF MARK:** CB05

**MARK SET BY:** DESCHUTES COUNTY SURVEYOR

**DATE OF MARK:** 1992

**LOCATION:**
- **SECTION:** 15
- **TOWNSHIP:** 17S
- **RANGE:** 12E
- **MERIDIAN:** WILLAMETTE

**REFERENCE NUMBER:** DGMC

**MARK SKETCH:**

![Mark Sketch Diagram]

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE

**DATE:** 1992-1993

**FIELD METHOD:** GPS

**FIELD EQUIPMENT:** TRIMBLE 4000ST

**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIizontal = NAD (83-91)

**VERTICAL:** NGVD 29

**COORDINATE SYSTEM:** TRANSVERSE MERCATOR

**ZONE:** DESCHUTES COUNTY

**LINEAR UNITS:** INTERNATIONAL FOOT

**CENTRAL MERIDIAN:** W 121°17'00.000000"

**LATITUDE OF ORIGIN:** N 43°00'00.000000"

**ORIGIN NORThING:** 0.0000 F

**ORIGIN EASTING:** 3,300,000.0000 F

**SCALE ALONG MERIDIAN:** 1.00016000000

**GEODITIC AND MAPPING COORDINATES**

**MARK:** CB05

**HORIZONTAL ORDER:** FIRST

<table>
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<tr>
<th>Component</th>
<th>Value</th>
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<tbody>
<tr>
<td>Latitude</td>
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<tr>
<td>Longitude</td>
<td>121°15'49.581455&quot;</td>
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<tr>
<td>Northing</td>
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<td>Easting</td>
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<tr>
<td>Geoid Height</td>
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# CONTROL MARK DATA

**MARK SET BY:** Deschutes Co. Surveyor  
**DATE OF MARK:** 1992  
**LOCATION:** Section 27 Township 17 S. Range 12 E. Meridian: Willamette  
**REFERENCE NUMBER:** DGMC 7  

**MARK SKETCH:**

![Mark Sketch Diagram](image)

**MARK SKETCH TEXT:**

\[ \text{17/22/04} \]
\[ 3\frac{1}{4} \text{ Lum Cap} \]
\[ \text{on 5/8 in up 0.4 ft.} \]
\[ \text{CBOG} \]
\[ \text{P.K. Nail and Flange} \]
\[ \text{Top Curb} \]
\[ \text{VERONICA LK} \]

**DATA COMPUTED BY:** Deschutes County Surveyor's Office  
**DATE:** 1992-1993  
**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** 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  
**ORIGIN EASTING:** 3,300,000.0000  
**ZONE:** Deschutes County  
**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

## GEODITIC AND MAPPING COORDINATES

**MARK:** CBOG  
**HORIZONTAL ORDER:** FIRST

<table>
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<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Latitude:</td>
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</tr>
<tr>
<td>Longitude:</td>
<td>121°16'25.461206&quot;</td>
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<tr>
<td>Northing:</td>
<td>393685.1418</td>
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<tr>
<td>Easting:</td>
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<td>Convergence:</td>
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<td>Scale Factor:</td>
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<td>Ellipsoid Height:</td>
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<td>Orthometric Height:</td>
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<tr>
<td>Geoid Height:</td>
<td>-64.4889</td>
</tr>
</tbody>
</table>

**Note:** The values represent geodetic and mapping coordinates for the marked point CBOG in Deschutes County, Oregon, with various precision levels indicated by the units and scale factor.
CONTROL MARK DATA

NAME OF MARK: CB07
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1992
COUNTRY: U.S.A.
LOCATION: SECTION 22 TOWNSHIP 17 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: HO vs 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 NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
ZONE: DESCHUTES COUNTY SCALE ALONG MERIDIAN: 1.000160000000
LINEAR UNITS: INTERNATIONAL FOOT

GEODITIC AND MAPPING COORDINATES

MARK: CB07 HORIZONTAL ORDER: FIRST

Latitude: 44°05'15.147780" ONE
Longitude: 121°15'49.842993" SIGMA
Northing: 396486.0899 ERROR
Easting: 3305121.4323 0.011
Convergence: +0°00'48.8122" 0.011
Scale Factor: 1.000160029952
Ellipsoid Height: 3414.5953 0.020
Orthometric Height: 3479.1252 0.032
Geoid Height: -64.5299
CONTROL MARK DATA

NAME OF MARK: CB08
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON

DATE OF MARK: 1992
COUNTRY: U.S.A.

LOCATION: SECTION 11 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 7

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE
DATE: 1992-1993

FIELD METHOD: GPS
FIELD EQUIPMENT: TRIMBLE 4000ST
ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIZONTAL= 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 P

LINEAR UNITS: INTERNATIONAL FOOT
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: CB08
HORIZONTAL ORDER: FIRST

Latitude: 44°06'33.785490" ONE SIGMA
Longitude: 121°14'38.406366" ERROR
Northing: 404452.3383 0.012
Easting: 3310332.4718 0.013
Convergence: +0°01'38.5535"
Scale Factor: 1.000160121912
Ellipsoid Height: 3354.6185 0.020
Orthometric Height: 3419.2677 0.032
Geoid Height: -64.6492
**CONTROL MARK DATA**

**NAME OF MARK:** CB09  
**COUNTY:** DESCHUTES  
**MARK SET BY:** DESCHUTES CO. SURVEYOR  
**STATE:** OREGON  
**DATE OF MARK:** 1992  
**COUNTRY:** U.S.A.  
**LOCATION:** SECTION 13  
**TOWNSHIP:** 17 S.  
**RANGE:** 12 E.  
**MERIDIAN:** WILLAMETTE  
**REFERENCE NUMBER:** PGMC 7

**MARK SKETCH:**

![Mark Sketch](image.png)

**DESTROYED**

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

**DATUM:** HOIZONTAL= NAD (83-91)  
**CENTRAL MERIDIAN:** W 121°17'00.000000"  
**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:** CB09  
**HORIZONTAL ORDER:** FIRST

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<td>401892.8345</td>
<td>3315689.5658</td>
<td>+0°02'29.6140&quot;</td>
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**ONE SIGMA ERROR**

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CONTROL MARK DATA

NAME OF MARK: CB10
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1992
COUNTRY: U.S.A.
LOCATION: SECTION 28 TOWNSHIP 17 S. RANGE 13 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: HOIIZONTAL= 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 NORTING: 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

MARK: CB10 HORIZONTAL ORDER: FIRST

Latitude: 44°03'57.017698"
Longitude: 121°10'59.067202"
Northing: 388588.579 0.011
Easting: 3326357.5765 0.010
Convergence: +0°04'11.0233"
Scale Factor: 1.000160793330
Ellipsoid Height: 3420.9963 0.020
Orthometric Height: 3485.1885 0.032
Geoid Height: -64.1922
CONTROL MARK DATA

NAME OF MARK: CBII
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON

DATE OF MARK: 1992
COUNTRY: U.S.A.

LOCATION: SECTION 21 TOWNSHIP 17 S. RANGE 13 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: DGMG 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)
CENTER MERIDIAN: W 121°17'00.000000"

VERTICAL= NGVD 29
LATITUDE OF ORIGIN: N 43°00'00.000000"

COORDINATE SYSTEM: TRANSVERSE MERCATOR
ORIGIN NORTING: 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: CBII
HORIZONTAL ORDER: FIRST
ONE SIGMA ERROR

Latitude: 44°05'39.299515" 0.014
Longitude: 121°09'47.698614" 0.012
Northing: 398954.5648
Easting: 3331554.2551
Convergence: +0°05'00.8131"
Scale Factor: 1.0001611136989
Ellipsoid Height: 3290.5635 0.025
Orthometric Height: 3354.8501 0.035
Geoid Height: -64.2865
CONTROL MARK DATA

NAME OF MARK: CB12
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES COUNTY SURVEYOR
STATE: OREGON
DATE OF MARK: 1992
COUNTRY: U.S.A.
LOCATION: SECTION 32, TOWNSHIP 17 S., RANGE 13 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: TRIMET NIGHT PLUS

DATUM: 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: CB12
HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.177990"
Longitude: 121°12'12.380199"
Northing: 388497.6804
Easting: 3321003.884
Convergence: +0°03'20.0343"
Scale Factor: 1.000160503781
Ellipsoid Height: 3477.3591
Orthometric Height: 3541.5984
Geoid Height: -64.2393
CONTROL MARK DATA

NAME OF MARK: CB13
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1992
COUNTRY: U.S.A.
LOCATION: SECTION 21 TOWNSHIP 17 S. RANGE 13 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: HOIZONTAL= NAD (83-91)
   VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: CB13
HORIZONTAL ORDER: FIRST

Latitude: 44°04'50.018695"
Longitude: 121°10'59.440098"
Northing: 393956.4355
Easting: 3326323.8185
Convergence: +0°04'10.8305"
Scale Factor: 1.000160791297
Ellipsoid Height: 3376.5594
Orthometric Height: 3440.8316
Geoid Height: -64.2722
CONTROL MARK DATA

NAME OF MARK: CB14
MARK SET BY: DESCHUTES CO. SURVEYOR
DATE OF MARK: 1992
LOCATION: SECTION 5, TOWNSHIP 18 S., RANGE 13 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: PGMC 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)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

GEODETIC AND MAPPING COORDINATES

MARK: CB14
HORIZONTAL ORDER: FIRST

Latitude: 44°03'04.169910"
Longitude: 121°11'35.654143"
Northing: 383233.1333
Easting: 3323691.6213
Convergence: +0°03'45.5179"
Scale Factor: 1.000160640965
Ellipsoid Height: 3485.0284
Orthometric Height: 3549.1492
Geoid Height: -64.1208

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,0000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000
CONTROL MARK DATA

NAME OF MARK: CB15
MARK SET BY: U.S. DEPARTMENT OF THE INTERIOR - BUREAU OF RECLAMATION
DATE OF MARK: 1992
LOCATION: SECTION 11, TOWNSHIP 17 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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.0000000"
LATITUDE OF ORIGIN: N 43°00'00.0000000"
ORIGIN NORTHING: 0.00000 F
ORIGIN EASTING: 3,300,000.00000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: CB15
HORIZONTAL ORDER: FIRST

Latitude: 44°06'33.426082"
Longitude: 121°15'12.900723"
Northing: 404414.8814
Easting: 3307815.3381
Convergence: +0°01'14.5442"
Scale Factor: 1.000160069748
Ellipsoid Height: 3343.3155
Orthometric Height: 3407.9898
Geoid Height: -64.6743
CONTROL MARK DATA

NAME OF MARK: CB16
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO...SURVEYOR
STATE: OREGON
DATE OF MARK: 1992
COUNTRY: U.S.A.
LOCATION: SECTION 11, TOWNSHIP 17 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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 3,300,000.0000 F
ORIGIN EASTING: 3307823.1529
SCALE ALONG MERIDIAN: 1.000160069888

GEODITIC AND MAPPING COORDINATES

MARK: CB16
HORIZONTAL ORDER: FIRST

Latitude: 44°07'05.369018"
Longitude: 121°15'12.777588"
Northing: 407650.0572
Easting: 3307823.1529
Convergence: +0°01'.14.6419"
Scale Factor: 1.000160069888
Ellipsoid Height: 3311.3003
Orthometric Height: 3376.0396
Geoid Height: -64.7393
CONTROL MARK DATA

NAME OF MARK: CB17  
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR  
STATE: OREGON

DATE OF MARK: 1992  
COUNTRY: U.S.A.

LOCATION: SECTION 25  TOWNSHIP 17 S.  RANGE 12 E. MERIDIAN: WILLAMETTE

REFERENCE NUMBER: DGNC 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: HOIIZONTAL= 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 NORTINGH: 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: CB17  
HORIZONTAL ORDER: FIRST

Latitude: 44°04'22.356141"  
ONE SIGMA ERROR

Longitude: 121°14'36.454425"  
0.010

Northing: 391141.328  
0.009

Easting: 3310481.3558  

Convergence: +0°01'39.8464"  

Scale Factor: 1.000160125452  

Ellipsoid Height: 3473.9335  
0.018

Orthometric Height: 3538.31  
0.031

Geoid Height: -64.3765
CONTROL MARK DATA

NAME OF MARK: CB18
MARK SET BY: DESCHUTES CO., SURVEYOR
DATE OF MARK: 1992
LOCATION: SECTION 32, TOWNSHIP 17 S., RANGE 13 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 7

MARK SKETCH:

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

DATUM: HOIontal= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000'
LATITUDE OF ORIGIN: N 43°00'00.000000'
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: CB18
HORIZONTAL ORDER: FIRST

Latitude: 44°03'29.528626"
Longitude: 121°12'12.105935"
Northing: 385798.6835
Easting: 3321026.5324
Convergence: +0°03'20.1984"
Scale Factor: 1.000160504869
Ellipsoid Height: 3488.3887
Orthometric Height: 3552.5782
Geoid Height: -64.1895
CONTROL MARK DATA

NAME OF MARK: CR12 .................................................. COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR .................. STATE: OREGON
DATE OF MARK: 1992 .................................................. COUNTRY: U.S.A.
LOCATION: SECTION 2, TOWNSHIP 17 S., RANGE 12 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: RGNC 7 

MARK SKETCH:

3/4" ALUM CAP ON
5/8" IC. 0.1' FT
Below Ground Level

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

DATUM: HOIIZONTAL= 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 NORTING: 0.00000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: CR19 HORIZONTAL ORDER: FIRST

Latitude: 44°07'25.535707" ONE SIGMA
Longitude: 121°15'11.817755" ERROR
Northing: 409692.5624 0.012
Easting: 3307892.4385 0.011
Convergence: +0°01'15.3176"
Scale Factor: 1.000160071131
Ellipsoid Height: 3295.2594 0.022
Orthometric Height: 3360.0402 0.034
Geoid Height: -64.7807
CONTROL MARK DATA

NAME OF MARK: BUTLER
MARK SET BY: LS 1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 24 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DHMC 1

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: HOZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: BUTLER
HORIZONTAL ORDER: FIRST

Latitude: 44°05'15.266512"
Longitude: 121°14'36.436265"
Northing: 396500.0465
Easting: 3310480.0871
Convergence: +0°01'39.8855"
Scale Factor: 1.000160125421
Ellipsoid Height: 3410.0212
Orthometric Height: 3474.5074
Geoid Height: -64.4861
CONTROL MARK DATA

NAME OF MARK: DESCHUTES_RESET
COUNTY: DESCHUTES

MARK SET BY: LS-1081 JEFFERY KERN
STATE: OREGON

DATE OF MARK: 1980
COUNTRY: U.S.A.

LOCATION: SECTION 14 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: PGMC 1

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: HOIIZONtal= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: DESCHUTES RESET
HORIZONTAL ORDER: FIRST

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<th>Value</th>
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<td>Longitude</td>
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<td>Ellipsoid Height</td>
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CONTROL MARK DATA

NAME OF MARK: DL20
COUNTY: DESCHUTES

MARK SET BY: LS 1081 JEFFERY KERN
STATE: OREGON

DATE OF MARK: 1980
COUNTRY: U.S.A.

LOCATION: SECTION 11 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 1

MARK SKETCH:

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE
DATE: 1992-1993

FIELD METHOD: GPS  FIELD EQUIPMENT: TRIMBLE 4000ST
ADJUSTED WITH: TRIMET 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: DL20
HORIZONTAL ORDER: SECOND

Latitude: 44°07'05.282651"
Longitude: 121°15'12.951909"
Northing: 407641.3054 0.028
Easting: 3307810.4373 0.037
Convergence: +0°01'14.5205"
Scale Factor: 1.000160069661
Ellipsoid Height: 3311.2664 0.042
Orthometric Height: 3376.0056 0.042
Geoid Height: -64.7393
CONTROL MARK DATA

NAME OF MARK: DL80  COUNTY: DESCHUTES
MARK SET BY: JF.K.  STATE: OREGON
DATE OF MARK: 1980  COUNTRY: U.S.A.
LOCATION: SECTION 35  TOWNSHIP 16 S.  RANGE 12 E.  MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMCC 1

MARK SKETCH:

3" Alum Cap in Conc. 0.4 ft. Below Ground 2' East of Edge Pavement

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE  DATE: 1992-1993

FIELD METHOD: GPS  FIELD EQUIPMENT: TRIMBLE 4000ST  ADJUSTED WITH: TRIMNET PLUS

DATUM: HOZONTAL= NAD (83-91)  CENTRAL MERIDIAN: W 121°17'00.000000"
VERTICAL= NGVD 29  LATITUDE OF ORIGIN: N 43°00'00.000000"
COORDINATE SYSTEM: TRANSVERSE MERCIATOR  ORIGIN NORTHING: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: DL80  HORIZONTAL ORDER: FIRST

Latitud: 44°08'27.787442"  ONE SIGMA ERROR
Longitude: 121°15'12.476059"  0.010
Northing: 415997.4056  0.008
Easting: 3307842.1233  0.018
Convergence: +0°01'14.8826"  0.032
Scale Factor: 1.000160070227
Ellipsoid Height: 3254.7803
Orthometric Height: 3319.6948
Geoid Height: -64.9145
CONTROL MARK DATA

NAME OF MARK: E010
MARK SET BY: LS.1081 JEFFERY KERN
DATE OF MARK: 1980
LOCATION: SECTION 26 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 1

MARK SKETCH:

3⅛ ALUM CAN
IN CONC. IN
4" IRON PIPE
UP 0.1

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

DATUM: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: E010 HORIZONTAL ORDER: FIRST

Latitude: 44°04'30.528934" ONE SIGMA ERROR
Longitude: 121°15'13.542454"
Northing: 391967.9194 0.008
Easting: 3307772.9791 0.008
Convergence: +0°01'14.0520"
Scale Factor: 1.000160068995
Ellipsoid Height: 3485.5945 0.015
Orthometric Height: 3550.0074 0.029
Geoid Height: -64.413
CONTROL MARK DATA

NAME OF MARK: GIS_01
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1998
COUNTRY: U.S.A.
LOCATION: SECTION 4, TOWNSHIP 18 S., RANGE 12 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGM 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: HOI ZONTAL = NAD (83-91)
VERTICAL = NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODIFIC AND MAPPING COORDINATES

MARK: GIS_01
HORIZONTAL ORDER: FIRST

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<th>Longitude</th>
<th>Northing</th>
<th>Easting</th>
<th>Convergence</th>
<th>Scale Factor</th>
<th>Ellipsoid Height</th>
<th>Orthometric Height</th>
<th>Geoid Height</th>
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<td>121°17'01.952450&quot;</td>
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CONTROL MARK DATA

NAME OF MARK: GIS .02 .............................................. COUNTY: DESCHUTES .............................................
MARK SET BY: DESCHUTES CO. SURVEYOR ....................... STATE: OREGON ...................................................
DATE OF MARK: 1988 ................................................ COUNTRY: U.S.A ..................................................
LOCATION: SECTION 34 ........................................... TOWNSHIP 17 S ............................................... RANGE 12 E ....................................................
MERIDIAN: WILLAMETTE ..................................... REFERENCE NUMBER: DGNC.7 ......................................

MARK SKETCH:

3/4" Alum Cap
Top Cue

BEAR CREEK 80

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE DATE: 1992-1993

FIELD METHOD: GPS FIELD EQUIPMENT: TRIMBLE 4000ST ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIZONTAL= 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: 0.00000 F
ZONE: DESCHUTES COUNTY ORIGIN EASTING: 3,300,000.00000 F
LINEAR UNITS: INTERNATIONAL FOOT SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: GIS .02 ............................................... HORIZONTAL ORDER: SECOND

Latitude: 44°03'04.811210" ONE
Longitude: 121°16'48.104740" SIGMA
Northing: 383285.1492 ERROR
Easting: 3300868.8785 FIXED
Convergence: +0°00'08.2708"
Scale Factor: 1.000160000862
Ellipsoid Height: 3605.8675 0.000
Orthometric Height: 3670.1378 FIXED
Geoid Height: -64.2703
CONTROL MARK DATA

NAME OF MARK: GIS_03                                      COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR                        STATE: OREGON
DATE OF MARK: 1988                                         COUNTRY: U.S.A.
LOCATION: SECTION 34  TOWNSHIP 17 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: HOIIZONTAL= 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: GIS_03 HORIZONTAL ORDER: FIRST

Latitude: 44°03’05.056638” ONE
Longitude: 121°16’25.762402” SIGMA
Northing: 363310.1327 ERROR
Easting: 3302500.8515 0.011
Convergence: +0°00’23.8055” 0.010
Scale Factor: 1.0001600007142
Ellipsoid Height: 3606.416 0.020
Orthometric Height: 3670.6752 0.033
Geoid Height: -64.2591
CONTROL MARK DATA

NAME OF MARK: GIS 04                        COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO...SURVEYOR         STATE: OREGON
DATE OF MARK: 1988                          COUNTRY: U.S.A.
LOCATION: SECTION 3  TOWNSHIP 18 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 7

MARK SKETCH:

BEAR CREEK RD

3/4" Alum Cap 6' 1N Conc. 1N
5" Pipe 1N Conc. Up 0.3 Ft.

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

DATUM: HOIZONTAL= 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 NORTING: 0.0000 F
ZONE: DESCHUTES COUNTY  ORIGIN EASTING: 3,300,000.0000 F
LINEAR UNITS: INTERNATIONAL FOOT  SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: GIS 04                        HORIZONTAL ORDER: SECOND
Latitude: 44°03'04.687120"  ONE
Longitude: 121°16'04.632040"  SIGMA
Northing: 383272.9415  ERROR
Easting: 3304044.3049  FIXED
Convergence: +0°00'38.4975"  FIXED
Scale Factor: 1.000160018678
Ellipsoid Height: 3597.587  0.000
Orthometric Height: 3661.8373  FIXED
Geoid Height: −64.2503
CONTROL MARK DATA

NAME OF MARK: GIS 05
MARK SET BY: DESCHUTES COUNTY SURVEYOR
DATE OF MARK: 1988
LOCATION: SECTION 33 TOWNSHIP 17 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: HOIZONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: GIS 05
HORIZONTAL ORDER: FIRST

Latitude: 44°03'05.906408"
Longitude: 121°15'48.292458"
Northing: 383396.685
Easting: 3305237.7858
Convergence: +0°00'49.8587"
Scale Factor: 1.000160031329
Ellipsoid Height: 3587.4858
Orthometric Height: 3651.7295
Geoid Height: -64.2436
CONTROL MARK DATA

NAME OF MARK: GIS 06
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1988
COUNTRY: U.S.A.
LOCATION: SECTION 34 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 7

MARK SKETCH:

DESTROYED

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

DATUM: HOIZONTAL= 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: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: GIS 06 HORIZONTAL ORDER: FIRST

Latitude: 44°03'31.198875"
Longitude: 121°15'50.033000"
Northing: 385958.2429 0.009
Easting: 3305110.024 0.008
Convergence: +0°00'48.6545"
Scale Factor: 1.000160029819
Ellipsoid Height: 3545.1889 0.017
Orthometric Height: 3609.4926 0.031
Geoid Height: -64.3037
### CONTROL MARK DATA

**NAME OF MARK:** GIS 07  
**COUNTY:** DESCHUTES  
**MARK SET BY:** DESCHUTES CO. SURVEYOR  
**STATE:** OREGON  
**DATE OF MARK:** 1988  
**LOCATION:** SECTION 27 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE  
**REFERENCE NUMBER:** DGMC 7

**MARK SKETCH:**

![Diagram of GIS 07 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:** HOIZONTAL= 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 NORTING:** 0.0000 F  
**ZONE:** DESCHUTES COUNTY  
**ORIGIN EASTING:** 3,300,000.0000 F  
**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

### GEODITIC AND MAPPING COORDINATES

**MARK:** GIS 07  
**HORIZONTAL ORDER:** SECOND

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CONTROL MARK DATA

NAME OF MARK: GIS 08
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON

DATE OF MARK: 1988
COUNTRY: U.S.A.

LOCATION: SECTION 34, TOWNSHIP 17 S., RANGE 12 E., MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGM 7

MARK SKETCH:

\[ \text{Neff Road} \]

\[ \text{3/4 Dial Cap} \]
\[ \text{In top of curb} \]

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE
DATE: 1992-1993

FIELD METHOD: GPS
FIELD EQUIPMENT: TRIMBLE 4000ST
ADJUSTED WITH: TRIMNET PLUS

DATUM: HOIONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.000160000000

GEODITIC AND MAPPING COORDINATES

MARK: GIS 08
HORIZONTAL ORDER: SECOND

Latitude: 44°03'56.400950"
Longitude: 121°16'30.199590"
Northing: 388510.1862
Easting: 3302176.2191
Convergence: +0°00'20.7257"
Scale Factor: 1.000160005408
Ellipsoid Height: 3543.7825
Orthometric Height: 3608.1627
Geoid Height: -64.3803
CONTROL MARK DATA

NAME OF MARK: GIS 10
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1988
COUNTRY: U.S.A.
LOCATION: SECTION 34 TOWNSHIP 17 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: HOIZONTAL= NAD (83-91) 
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000" 
LATITUDE OF ORIGIN: N 43°00'00.000000" 
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: GIS 010
HORIZONTAL ORDER: SECOND

Latitude: 44°03'56.469580" ONE
Longitude: 121°16'53.087650" SIGMA
Northing: 388517.0335 ERROR
Easting: 3300504.7844 FIXED
Convergence: +0°00'04.8074" FIXED
Scale Factor: 1.000160000291
Ellipsoid Height: 3619.1743 0.000
Orthometric Height: 3683.5696 FIXED
Geoid Height: -64.3953
CONTROL MARK DATA

NAME OF MARK: GIS 11
COUNTY: DESCHUTES
MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON
DATE OF MARK: 1988
COUNTRY: U.S.A.
LOCATION: SECTION 28 TOWNSHIP 17 S. RANGE 12 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: DGMC 7

MARK SKETCH:

GIS 0011
3½" Alum Cap
Top Cure
17122700
Brass Cap
111 M.B. Box
3' South E

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

DATUM: HOIYNTAL= 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 NORTING: 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: GIS 11
HORIZONTAL ORDER: FIRST

Latitude: 44°03'56.606541"
Longitude: 121°17'01.526807"
Northing: 388530.8992
East: 3299888.5028
Convergence: -0°00'01.0619"
Scale Factor: 1.000160000014
Ellipsoid Height: 3610.7118
Orthometric Height: 3675.1158
Geoid Height: -64.404
**CONTROL MARK DATA**

**NAME OF MARK:** GIS 12  
**COUNTY:** DESCHUTES

**MARK SET BY:** DESCHUTES CO. SURVEYOR  
**STATE:** OREGON

**DATE OF MARK:** 1986  
**COUNTRY:** U.S.A.

**LOCATION:** SECTION 35  
**TOWNSHIP:** 17 S.  
**RANGE:** 12 E.  
**MERIDIAN:** WILLAMETTE

**REFERENCE NUMBER:** DGHNC 7

---

**MARK SKETCH:**

![Sketch of GIS 12 control mark with annotations such as "NEFF ROAD", "3/4 ALUMCAD IN MASS OF CONC. 0.3 DOWN", "15" and "2"]

---

**DATA COMPUTED BY:** DESCHUTES COUNTY SURVEYOR'S OFFICE  
**DATE:** 1992-1993

**FIELD METHOD:** GPS  
**FIELD EQUIPMENT:** TRIMBLE 4000ST  
**ADJUSTED WITH:** TRIMNET PLUS

**DATUM:** HOIIZONTAL= 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 NORTTHING:** 0.0000 F

**ZONE:** DESCHUTES COUNTY  
**ORIGIN EASTING:** 3,300,000.0000 F

**LINEAR UNITS:** INTERNATIONAL FOOT  
**SCALE ALONG MERIDIAN:** 1.00016000000

---

**GEODITIC AND MAPPING COORDINATES**

**MARK:** GIS 12  
**HORIZONTAL ORDER:** FIRST

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CONTROL MARK DATA

NAME OF MARK: GIS 100
COUNTY: DESCHUTES

MARK SET BY: DESCHUTES CO. SURVEYOR
STATE: OREGON

DATE OF MARK: 1992
COUNTRY: U.S.A.

LOCATION: SECTION 23 TOWNSHIP 17 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: HOIZNTAL= NAD (83-91)
VERTICAL= NGVD 29

COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: GIS 100
HORIZONTAL ORDER: FIRST

Latitude: 44°05'23.787414"
Longitude: 121°15'31.642074"
Northing: 397361.4612
Easting: 3306449.8311
Convergence: +0°01'01.4783"
Scale Factor: 1.000160047505
Ellipsoid Height: 3400.812
Orthometric Height: 3465.352
Geoid Height: -64.54
CONTROL MARK DATA

NAME OF MARK: BLACK BUTTE LOOKOUT
COUNTY: DESCHUTES

MARK SET BY: DATA FROM USCGGS
STATE: OREGON

DATE OF MARK: UNKNOWN
COUNTRY: U.S.A.

LOCATION: SECTION 34 TOWNSHIP 13 S. RANGE 9 E. MERIDIAN: WILLAMETTE
REFERENCE NUMBER: NONE

MARK SKETCH:

Lookout Tower on top of Black Butte west of Sisters

DATA COMPUTED BY: DESCHUTES COUNTY SURVEYOR'S OFFICE
DATE: 1992-1993

FIELD METHOD: GPS
FIELD EQUIPMENT: TRIMBLE 4000ST
ADJUSTED WITH: TRIMNET PLUS

DATUM: HOVONTAL= NAD (83-91)
VERTICAL= NGVD 29
COORDINATE SYSTEM: TRANSVERSE MERCATOR
ZONE: DESCHUTES COUNTY
LINEAR UNITS: INTERNATIONAL FOOT

CENTRAL MERIDIAN: W 121°17'00.000000"
LATITUDE OF ORIGIN: N 43°00'00.000000"
ORIGIN NORTHING: 0.0000 F
ORIGIN EASTING: 3,300,000.0000 F
SCALE ALONG MERIDIAN: 1.00016000000

GEODITIC AND MAPPING COORDINATES

MARK: BLACK BUTTE LOOKOUT HORIZONTAL ORDER: SECOND

Latitutde: 44°23'59.008940"
Longitude: 121°38'07.705650"
Northing: 510510.3795
Easting: 3207946.1069
Convergence: -0°14'46.9686"
Scale Factor: 1.000169676002
Ellipsoid Height: 0
Orthometric Height: 0
Geoid Height: 0