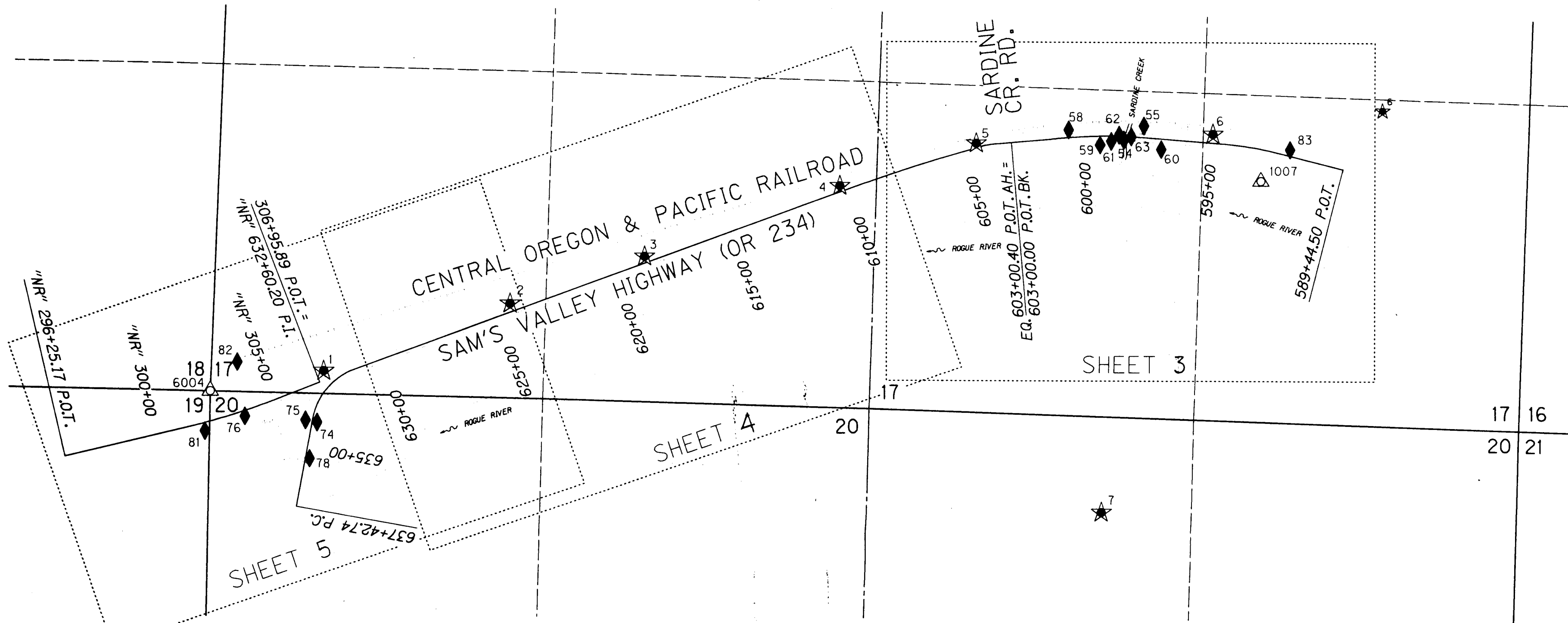


SW ¼ SEC 17 T36S R3W WM
 SE ¼ SEC 17 T36S R3W WM
 NW ¼ SEC 20 T36S R3W WM
 NE ¼ SEC 20 T36S R3W WM
 NE ¼ SEC 19 T36S R3W WM

RECEIVED
 Date 3-1-12 By BB
 This survey consists of:
 5 sheet(s) Map
 2 page(s) Narrative
 JACKSON COUNTY
 SURVEYOR



NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO RESOLVE THE LOCATION OF THE RIGHT OF WAY OF HIGHWAY 234 (ALSO KNOWN AS PACIFIC HIGHWAY 99, SAMS VALLEY HIGHWAY, NORTH PACIFIC HIGHWAY, AND SECOND AVENUE) AND NORTH RIVER ROAD IN ORDER TO PROPERLY MAP AND DESIGN A 0.75 MILE PORTION OF THE ROGUE RIVER TRAIL BETWEEN SARDINE CREEK AND ROCK POINT BRIDGE IN JACKSON COUNTY. THIS SURVEY IS TO ESTABLISH A CONTROL NETWORK AND RECOVER AND PRESERVE THE POSITION OF MONUMENTS THAT HAVE BEEN PREVIOUSLY PLACED IN THE PUBLIC RECORDS.

REFERENCE DOCUMENTS USED:
 WITH REGARDS TO HIGHWAY 234: ODOT DRG 3B-2-9 (ROCK POINT - GOLD HILL SECTION) AND IR-3-607 (SARDINE CREEK SECTION - DATED MAY 1938).
 WITH REGARDS TO NORTH RIVER ROAD: 1955 COUNTY ROAD RECORDS ROAD ALIGNMENT. FILED SURVEYS (JACKSON COUNTY): CS 243, 3357, 4628, 12891, 17445, AND 20087.

DEEDS: VOL. 217 PG. 9, DEED RECORDS AND NO. 76-12231, OFFICIAL RECORDS, AS WELL AS OTHER DOCUMENTS DESCRIBING PROPERTY IN THE SUBJECT AREA ALL USE STATIONING AND MATHEMATICS AS SHOWN ON ODOT MAP IR-3-607 WHICH WAS THE BASIS FOR THE CENTERLINE OF HIGHWAY 234 AS WELL AS PROPERTY LINES AS SHOWN ON THAT DRAWING. VOL. 497 PG. 156-160, DEED RECORDS WAS USED TO DETERMINE THE WESTERLY RIGHT OF WAY OF HIGHWAY 234 AND THE SOUTHERN RIGHT OF WAY OF NORTH RIVER ROAD AT THAT SPECIFIC ROAD INTERSECTION.

ALIGNMENT RESOLUTION:
 HIGHWAY 234: THE MATHEMATICAL ALIGNMENT OF THE CENTERLINE OF THE HIGHWAY PER ODOT DRG. NO. 3B-2-9 FROM STATION 590+00 WESTERLY TO THE ROCK POINT BRIDGE AT STATION 637+49.5 PC WAS REVIEWED. ADDITIONAL REALIGNMENT OF THE SECTION FROM 594+50.00 PT TO 603+56.4 PC WAS REVIEWED PER MAP IR-3-607. THE TWO MAPS, SUPPORTED BY FURTHER RECORDED DEED INFORMATION, BECAME THE BASIS FOR LOCATING THE CENTERLINE AND RIGHT OF WAY OF HIGHWAY 234. RIGHT OF WAY MONUMENTS WERE SPECIFICALLY NOTED ON MAP IR-3-607.

A THOROUGH SEARCH WAS MADE FOR ALL REPORTED MONUMENTS BUT ONLY MONUMENT NO'S 1001 AND 1002 WERE FOUND. THEY ARE ALSO NOTED AS FOUND PER CS 243 AND 20087 AT STATION 595+00. ADDITIONAL MONUMENTS SHOWN ON THESE TWO SURVEYS WERE FOUND AT STATIONS 592+02.5 PC AND 589+44.57 AND NOTED AS MONUMENT NOS. 1007 AND 1008 RESPECTIVELY. USING MONUMENTS NO. 1002, 1007, AND 1008 AS HORIZONTAL CONTROL (SHOWN ON SHEET 3), THE RECORD ALIGNMENT OF THE HIGHWAY AND SPIRAL DATA BETWEEN STATIONS 589+44.57 AND 604+35.0 PT WAS HELD AND ROTATED 1°44'48" CLOCKWISE EXCEPT FOR A MINOR CHANGE IN DELTA ANGLE FROM 9°54' TO 9°54'51" AT STATION 592+02.5 PC AS SHOWN. AT THIS POINT A ROTATION OF 1°57'09" CLOCKWISE IN THE RECORD ALIGNMENT WAS UTILIZED IN ORDER TO BETTER FIT THE ACTUAL PAVED ROAD SURFACE ALONG WITH THE RELATIVE PHYSICAL LOCATION OF THE BRIDGE AT ROCK POINT. THIS RESULTED IN A DELTA ANGLE OF 3°18'39" (RECORD 3°31') BETWEEN STATIONS 605+87.21 PC (RECORD 605+77.0) AND 609+18.29 PT (RECORD 609+28.7) AND DELTA ANGLE OF 59°26'27" (RECORD 59°26') BETWEEN STATIONS 631+11.53 PC (RECORD 631+12.3) AND 633+81.72 PT (RECORD 633+82.5).

NORTH RIVER ROAD: THE FINAL CENTERLINE ALIGNMENT FOR NORTH RIVER ROAD WAS A COLLABORATIVE EFFORT BETWEEN JACKSON COUNTY SURVEYOR KERRY BRADSHAW AND SURVEYOR PAT DICKERSON WITH THE JACKSON COUNTY ROAD DEPARTMENT. A COORDINATE SHEET FROM 1955 WAS PROVIDED BY PAT DICKERSON THAT PROVIDED ALIGNMENT DETAILS FOR A LARGE SECTION OF ROAD FROM THE CITY OF ROGUE RIVER EASTERLY TO HIGHWAY 234. THE PARTICULAR SECTION OF ROAD OF INTEREST FOR THIS PROJECT WAS FROM STATION 296+25.20 PT TO 306+96.23 PI. BASED ON FIELD TIES TO MONUMENTS SHOWN IN FILED SURVEYS CS 4628 AND 17445, THE CALCULATED LOCATION OF THE CENTERLINE OF THE 60 FOOT WIDE RIGHT OF WAY BETWEEN STATIONS 296+25.20 PT AND 301+07.53 PC WAS ESTABLISHED. IT WAS THE APPARENT INTENTION OF THE 1955 DATA SHEET THAT STATION 306+96.23 PI BE THE SAME POINT AS STATION 632+61.0 PI OF HIGHWAY 234. WITH THAT IN MIND I HELD THE CENTERLINE BEARING BETWEEN STATIONS 296+25.20 PT AND 301+07.53 PC, THE RECORD 2° CURVE DATA, AND THE COMPUTED PI POINT OF HIGHWAY 234 (STATION 632+61.0) TO DEFINE THE CENTERLINE OF NORTH RIVER ROAD AS SHOWN ON THE MAP.

LEGEND	
★	SET GPS STATION
◆	SET NETWORK POINT
△	FOUND MONUMENT, USED AS NETWORK POINT

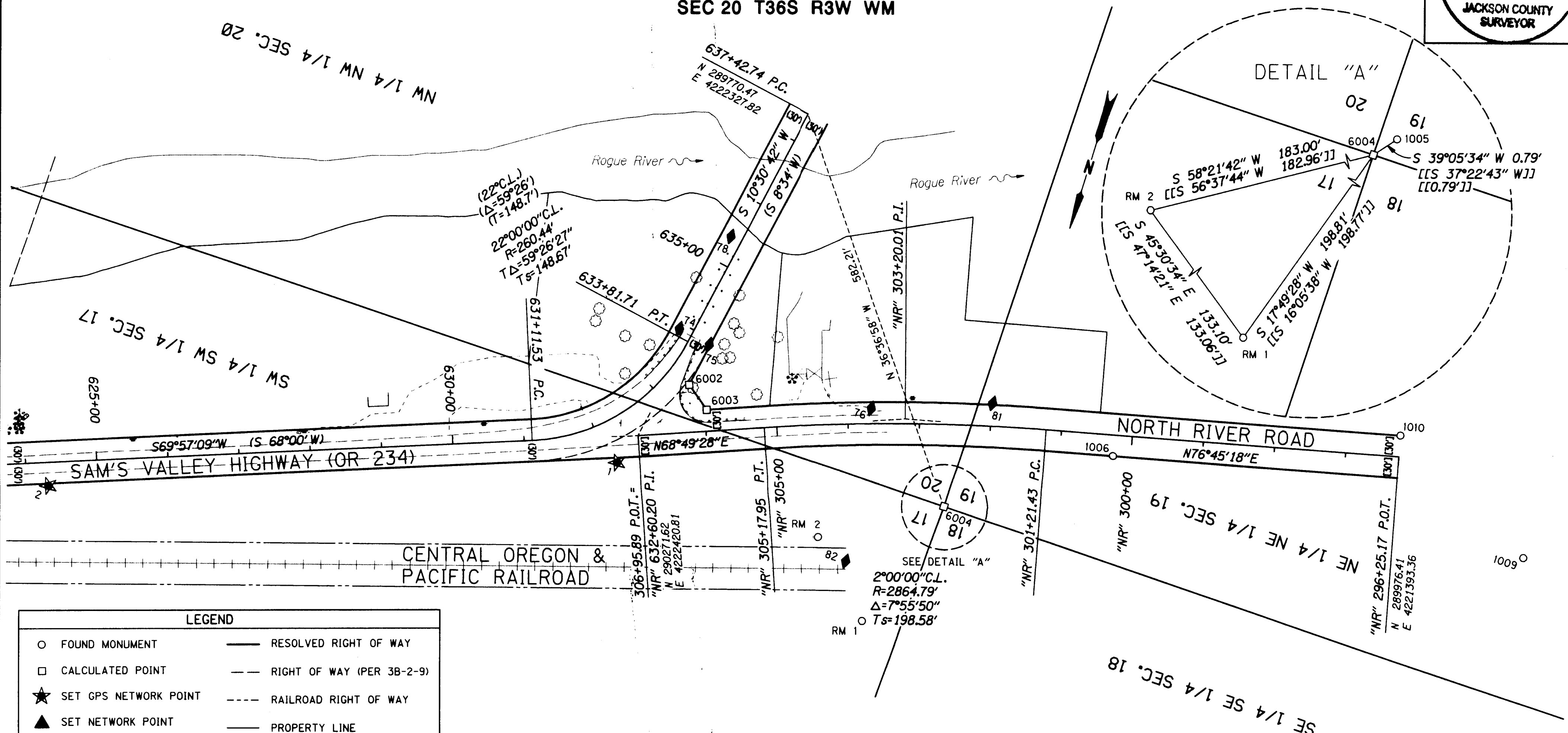
REGISTERED
 PROFESSIONAL
 LAND SURVEYOR
Richard L. Bath
 OREGON
 JULY 30, 1976
 RICHARD L. BATH
 No. 1069
 RENEWS: 12/31/13

HEA Hardey Engineering & Associates, Inc.
ENGINEERING INTEGRITY
P.O. BOX 1625 MEDFORD, OREGON 97501
 VOICE: 541-772-6880 FAX: 541-772-9573 EMAIL: info@hea-inc.com

OREGON DEPARTMENT OF TRANSPORTATION
 HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
 ROGUE RIVER TRAIL: SARDINE CREEK TO ROCK POINT BRIDGE
 SAM'S VALLEY HIGHWAY (OR 234)
 JACKSON COUNTY
 FILE: 16814RW.DGN
 FOR ODOT REGION 3
 100 ANTELOPE ROAD
 WHITE CITY, OR 97593
 ENGLISH
 FEBRUARY 24, 2012
 SCALE: 1" = 100'
 SHEET 1 OF 5

SEC 17 T36S R3W WM
 SEC 18 T36S R3W WM
 SEC 19 T36S R3W WM
 SEC 20 T36S R3W WM

RECEIVED
 Date 3-1-12 By 66
 This survey consists of
 5 sheet(s) Map
 2 page(s) Narrative
 JACKSON COUNTY
 SURVEYOR



LEGEND

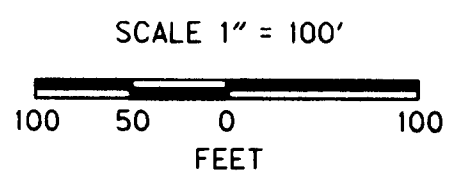
○ FOUND MONUMENT	— RESOLVED RIGHT OF WAY
□ CALCULATED POINT	- - - RIGHT OF WAY (PER 3B-2-9)
★ SET GPS NETWORK POINT	- - - RAILROAD RIGHT OF WAY
▲ SET NETWORK POINT	— PROPERTY LINE
() RECORD DATA PER ODOT DRG. NO. 3B-2-9	-X- FENCE
[[]] RECORD DATA PER JCSO RE-ESTAB NOTES	- - - EDGE OF PAVEMENT

CALCULATED POINT LIST

PT. NO.	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
6002	290182.31	4222373.73	633+35.333	34.67	CALCULATED RIGHT OF WAY
6003	290207.96	4222336.59	"NR" 305+97.17	-30.00	CALCULATED RIGHT OF WAY
6004	290237.78	4221980.56			CALCULATED SECTION CORNER SECTIONS 17, 18, 19, & 20

RECOVERED MONUMENT LIST

PT. NO.	NORTHING	EASTING	STATION	OFFSET	DATE	DESCRIPTION	REFERENCE
1003	290183.06	4224640.63			08/28/11	FOUND 2 1/2" BRASS DISC, 5" DEEP, GOOD CONDITION	PER JCSO RE-ESTAB. NOTES
1005	290237.17	4221980.06			08/28/11	FOUND 2 1/2" BRASS DISC, FLUSH, GOOD CONDITION	PER JCSO RE-ESTAB. NOTES
1006	290097.24	4221775.72	"NR" 300+25.04	-30.01	08/28/11	FOUND 5/8" REBAR WITH ALUMINUM CAP MARKED "BOYDEN PLS 281", FLUSH, GOOD CONDITION	CS 17445
1009	290056.95	4221184.00			08/04/11	FOUND 5/8" REBAR WITH ALUMINUM CAP MARKED "BOYDEN PLS 281", 1" EXPOSED, GOOD CONDITION	CS 17445
1010	289847.19	4221400.28	"NR" 296+25.20	30.03	08/04/11	FOUND 5/8" REBAR, 8" DEEP, GOOD CONDITION	CS 4828
RM 1	290427.05	4222041.41			10/07/11	FOUND 2 1/2" BRASS DISC MARKED "JACKSON COUNTY SURVEYOR RM 1 2011", FLUSH, GOOD CONDITION	PER JCSO RE-ESTAB. NOTES
RM 2	290333.78	4222136.36			10/07/11	FOUND 2" ALUMINUM CAP MARKED "JACKSON COUNTY RM2 SURVEYOR", FLUSH, GOOD CONDITION	PER JCSO RE-ESTAB. NOTES



REGISTERED PROFESSIONAL LAND SURVEYOR
Richard L. Bath
 OREGON
 JULY 30, 1976
 RICHARD L. BATH
 No. 1069
 RENEWS: 12/31/13

HEA Hardey Engineering & Associates, Inc.
ENGINEERING INTEGRITY
 P.O. BOX 1625 MEDFORD, OREGON 97501
 VOICE: 541-772-8880 FAX: 541-772-9573 EMAIL: info@heo-inc.com

OREGON DEPARTMENT OF TRANSPORTATION
 HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
 ROGUE RIVER TRAIL: SARDINE CREEK TO ROCK POINT BRIDGE
 SAM'S VALLEY HIGHWAY (OR 234)
 JACKSON COUNTY
 FILE: 16814RW.DGN

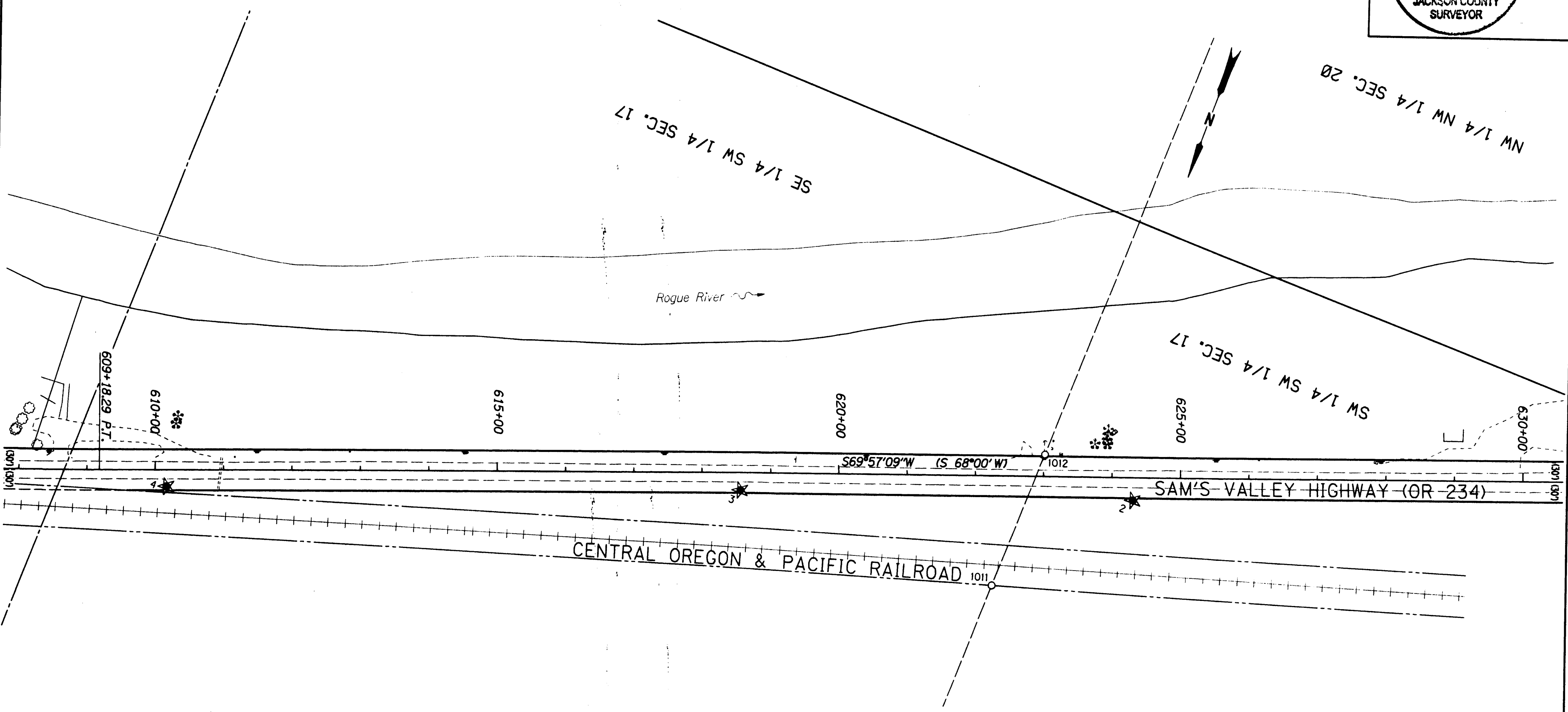
FOR ODOT REGION 3
 100 ANTELOPE ROAD
 WHITE CITY, OR 97593

ENGLISH

FEBRUARY 24, 2012
 SCALE: 1" = 100'
 SHEET 5 OF 5

SW 1/4 SEC 17 T36S R3W WM
 SE 1/4 SEC 17 T36S R3W WM
 NW 1/4 SEC 20 T36S R3W WM

RECEIVED
 Date 3-1-12 By [Signature]
 This survey consists of
 5 sheet(s) Map
 2 page(s) Narrative
 JACKSON COUNTY
 SURVEYOR



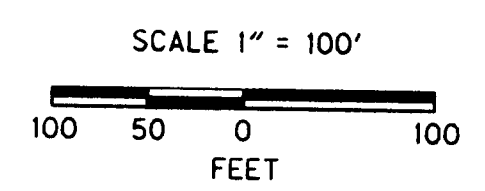
LEGEND

○ FOUND MONUMENT	— RESOLVED RIGHT OF WAY
□ CALCULATED POINT	- - - RIGHT OF WAY (PER 3B-2-9)
★ SET GPS NETWORK POINT	- - - RAILROAD RIGHT OF WAY
▲ SET NETWORK POINT	— PROPERTY LINE
() RECORD DATA PER ODOT DRG. NO. 3B-2-9	-X- FENCE
	- - - EDGE OF PAVEMENT

RECOVERED MONUMENT LIST

PT. NO.	LDP NORTHING	LDP EASTING	STATION	OFFSET	DATE	DESCRIPTION	REFERENCE
1011	290777.20	4223338.49	622+24.80	180.37	08/04/11	FOUND 5/8" SMOOTH PIN, 2" EXPOSED, GOOD CONDITION	CS 3357
1012	290569.68	4223332.11	623+01.94	-32.39	08/04/11	FOUND 5/8" SMOOTH PIN, FLUSH, GOOD CONDITION	CS 3357

REGISTERED PROFESSIONAL LAND SURVEYOR
Richard L. Bath
 OREGON
 JULY 30, 1976
 RICHARD L. BATH
 No. 1069
 RENEWS: 12/31/13



HEA Hardey Engineering & Associates, Inc.
 ENGINEERING INTEGRITY
 P.O. BOX 1625 MEDFORD, OREGON 97501
 VOICE: 541-772-6880 FAX: 541-772-9573 EMAIL: info@hea-inc.com

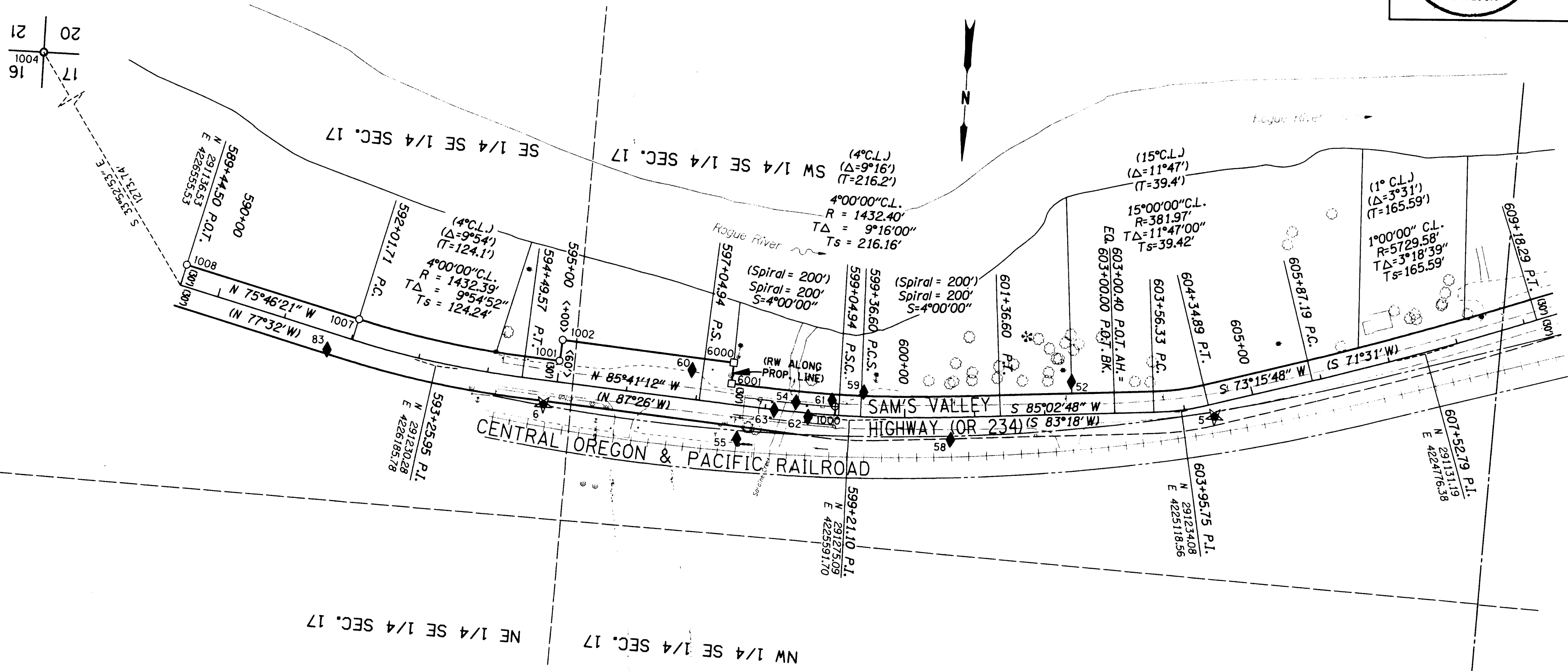
OREGON DEPARTMENT OF TRANSPORTATION
 HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
 ROGUE RIVER TRAIL: SARDINE CREEK TO ROCK POINT BRIDGE
 SAM'S VALLEY HIGHWAY (OR 234)
 JACKSON COUNTY
 FILE: 16814RW.DGN

FOR ODOT REGION 3
 100 ANTELOPE ROAD
 WHITE CITY, OR 97593

ENGLISH
 FEBRUARY 24, 2012
 SCALE: 1" = 100'
 SHEET 4 OF 5

SE 1/4 SEC 17 T36S R3W WM
SW 1/4 SEC 17 T36S R3W WM

RECEIVED
Date 3-1-12 By DB
This survey consists of
5 sheet(s) Map
2 page(s) Narrative
JACKSON COUNTY
SURVEYOR



CALCULATE POINT LIST

PT. NO.	LDP	LDP	STATION	OFFSET
	NORTHING	EASTING		
6000	291202.12	4225780.92	597+47.051	-59.99
6001	291232.09	4225782.39	597+47.751	-29.99

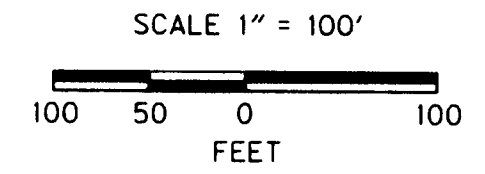
RECOVERED MONUMENT LIST

PT. NO.	LDP	LDP	STATION	OFFSET	DATE	DESCRIPTION	REFERENCE
	NORTHING	EASTING					
1000	291256.90	4225612.96	598+99.43	-12.29	08/07/11	FOUND BRASS DISK STAMPED "X257", FLUSH, GOOD CONDITION	NGS DATA SHEET
1001	291213.24	4226009.85	594+99.48	-30.23	08/07/11	FOUND 1" IRON PIN, 2" DEEP, GOOD CONDITION	CS 243
1002	291183.59	4226007.13	594+99.96	-60.00	08/07/11	FOUND 1" O.T.P., 2" DEEP, GOOD CONDITION	CS 243
1004	290079.08	4227265.81	N/A	N/A	08/26/11	FOUND 2 1/2" BRASS DISC, FLUSH, GOOD CONDITION	PER JCISO RE-ESTAB. NOTES
1007	291170.80	4226298.29	592+02.28	-30.00	07/27/11	FOUND 1" O.T.P., 5" EXPOSED, GOOD CONDITION	CS 243
1008	291107.45	4226546.16	588+44.50	-30.00	07/27/11	FOUND 1" SMOOTH PIN, FLUSH, GOOD CONDITION	CS 243

LEGEND

○ FOUND MONUMENT	— RESOLVED RIGHT OF WAY
□ CALCULATED POINT	- - - RIGHT OF WAY (PER 3B-2-9)
★ SET GPS NETWORK POINT	- - - RAILROAD RIGHT OF WAY
▲ SET NETWORK POINT	— PROPERTY LINE
() RECORD DATA PER ODOT DRG. NO. 3B-2-9	-X- FENCE
< > RECORD DATA PER ODOT DRG. NO. 1R-3-607	- - - EDGE OF PAVEMENT
	O.T.P. OPEN TOP PIPE

REGISTERED PROFESSIONAL LAND SURVEYOR
Richard L. Bath
OREGON
JULY 30, 1976
RICHARD L. BATH
No. 1069
RENEWS: 12/31/13



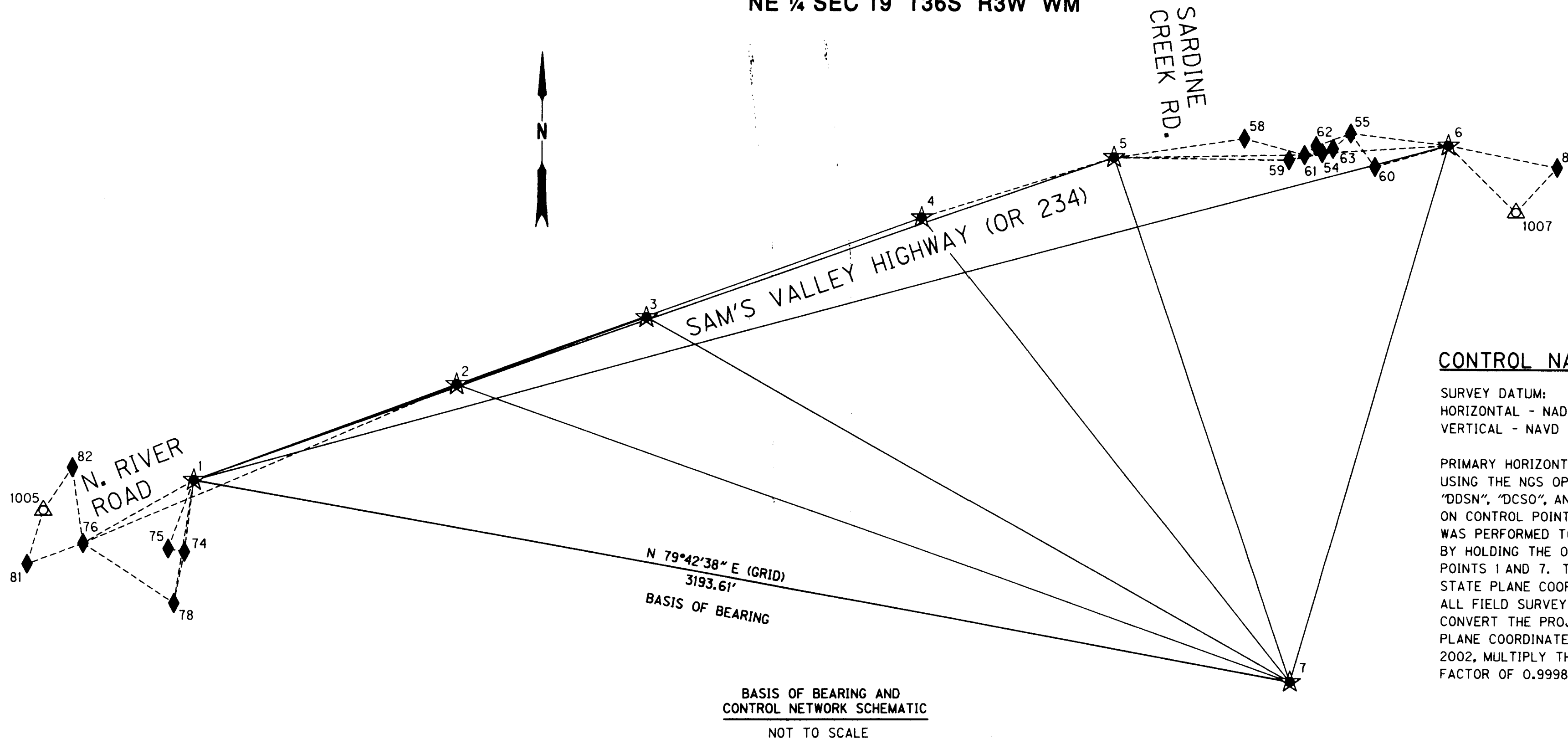
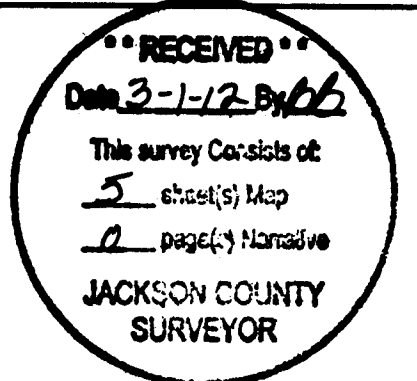
HEA Hardey Engineering & Associates, Inc.
P.O. BOX 1625 MEDFORD, OREGON 97501
VOICE: 541-772-8880 FAX: 541-772-9573 EMAIL: info@hea-inc.com

OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
ROGUE RIVER TRAIL: SARDINE CREEK TO ROCK POINT BRIDGE
SAM'S VALLEY HIGHWAY (OR 234)
JACKSON COUNTY
FILE: 16814RW.DGN

FOR ODOT REGION 3
100 ANTELOPE ROAD
WHITE CITY, OR 97593

ENGLISH
FEBRUARY 24, 2012
SCALE: 1" = 100'
SHEET 3 OF 5

SW ¼ SEC 17 T36S R3W WM
 SE ¼ SEC 17 T36S R3W WM
 NW ¼ SEC 20 T36S R3W WM
 NE ¼ SEC 20 T36S R3W WM
 NE ¼ SEC 19 T36S R3W WM



CONTROL NARRATIVE

SURVEY DATUM:
 HORIZONTAL - NAD83 (CORS96) EPOCH 2002 (INTERNATIONAL FEET)
 VERTICAL - NAVD 88 (INTERNATIONAL FEET)

PRIMARY HORIZONTAL CONTROL WAS BROUGHT INTO THE PROJECT USING THE NGS OPUS PROGRAM WHICH HELD CORS STATIONS "DDSN", "DCSO", AND "YBHB" TO ESTABLISH COORDINATE POSITIONS ON CONTROL POINTS 1 AND 7. A SUBSEQUENT STATIC GPS SURVEY WAS PERFORMED TO ESTABLISH POSITIONS FOR POINTS 2 THROUGH 6, BY HOLDING THE OPUS-DERIVED COORDINATES FOR POINTS 1 AND 7. THE COORDINATE SYSTEM WAS HELD AT OREGON STATE PLANE COORDINATE SYSTEM - SOUTH ZONE (3602), UNTIL ALL FIELD SURVEYING AND ADJUSTMENTS WERE COMPLETE. TO CONVERT THE PROJECT LDP COORDINATES TO THE OREGON STATE PLANE COORDINATE SYSTEM - SOUTH ZONE NAD83 (CORS96) EPOCH 2002, MULTIPLY THE LDP COORDINATE VALUES BY THE COMBINED FACTOR OF 0.99986869.

BASIS OF BEARING AND CONTROL NETWORK SCHEMATIC
 NOT TO SCALE

NETWORK POINT COORDINATE TABLE

PT. NO.	LDP NORTHING	LDP EASTING	DATE	DESCRIPTION
1	290316.998	422437.214	12/15/2010	SET 5/8" X 30" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
2	290587.242	4223188.807	12/15/2010	SET 5/8" X 30" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
3	290777.319	4223730.997	12/15/2010	SET 5/8" X 30" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
4	291083.390	4224520.010	12/15/2010	SET 5/8" X 30" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
5	291238.614	4225071.281	12/15/2010	SET 5/8" X 30" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
6	291277.188	4226029.446	12/15/2010	SET 5/8" X 30" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
7	289748.547	4225579.482	12/15/2010	SET 5/8" X 30" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
54	291253.808	4225688.862	6/7/2011	SCRIBED "X" IN SIDEWALK
55	291310.755	4225750.730	6/7/2011	SET 5/8" X 24" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
58	291294.089	4225445.737	6/8/2011	SET 5/8" X 24" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
59	291233.365	4225573.199	6/8/2011	SET 5/8" X 24" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
60	291215.714	4225819.918	6/8/2011	SET 12" SPIKE WITH WASHER
61	291248.198	4225817.772	6/8/2011	SET 12" SPIKE WITH WASHER
62	291273.842	4225650.899	6/9/2011	SET HUB AND TACK
63	291288.821	4225899.225	6/10/2011	SET HUB AND TACK
74	290111.490	4222410.846	6/28/2011	SET SPIKE WITH WASHER
75	290120.294	4222363.923	6/28/2011	SET SPIKE WITH WASHER
76	290136.265	4222119.837	6/28/2011	SET SPIKE WITH WASHER
78	289888.176	4222380.848		SCRIBED "X" IN SIDEWALK
81	290077.559	4221959.272	8/26/2011	SET SPIKE WITH WASHER
82	290354.109	4222088.899	8/26/2011	SET SPIKE WITH WASHER
83	291215.542	4228341.653		SET 5/8" X 24" IRON REBAR W/ ALUMINUM CAP STAMPED "HEA CONTROL POINT"
1005	290237.188	4221980.059	08/28/11	FOUND 2 1/2" BRASS DISC, FLUSH, GOOD CONDITION (SEE 2011 JCSO RE-ESTAB. NOTES ON SHEET 5 OF 5)
1007	291170.804	4228298.294	07/27/11	FOUND 1" O.T.P., 5" EXPOSED, GOOD CONDITION (PER CS 243)

REGISTERED PROFESSIONAL LAND SURVEYOR

Richard L. Bath

OREGON
 JULY 30, 1976
 RICHARD L. BATH
 No. 1069

RENEWS: 12/31/13

LEGEND

- ★ SET GPS STATION
- ◆ SET NETWORK POINT
- △ FOUND MONUMENT, USED AS NETWORK POINT
- ★-★ GPS LINES OF OBSERVATION
- ◆-◆ NETWORK LINES OF OBSERVATION
- O.T.P. OPEN TOP PIPE

OREGON DEPARTMENT OF TRANSPORTATION

HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
 ROGUE RIVER TRAIL: SARDINE CREEK TO ROCK POINT BRIDGE
 SAM'S VALLEY HIGHWAY (OR 234)
 JACKSON COUNTY
 FILE: 16814RW.DGN

FOR ODOT REGION 3
 100 ANTELOPE ROAD
 WHITE CITY, OR 97593

ENGLISH
 FEBRUARY 24, 2012
 SCALE: 1" = 100'
 SHEET 2 OF 5