

SE 1/4 OF SEC. 21, T. 13 S., R. 32 E., W.M.

SURVEY NARRATIVE

THE PURPOSE OF THIS SURVEY IS TO PERPETUATE EXISTING MONUMENTATION, RESOLVE THE EXISTING RIGHT OF WAY (RW) AND MONUMENT NEW RW PURCHASES ALONG A STRETCH OF THE JOHN DAY HIGHWAY NEAR DEAN CREEK IN THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 13 SOUTH, RANGE 32 EAST, WM., GRANT COUNTY, OREGON. FOR THIS SURVEY, WE ESTABLISHED A CONTROL NETWORK, RECOVERED THE POSITION OF HIGHWAY MONUMENTS (MONS) IN THE AREA, AND MONUMENTED THE NEW R/W BOUNDARY FOR THE OREGON DEPARTMENT OF TRANSPORTATION (ODOT) AS PART OF THE US26: DEAN AND DOG CREEK CULVERT REPLACEMENT PROJECT.

THE POSITIONS OF MONUMENTS 400, 401, 402, 403, 404, AND 405 WERE ACCEPTED AND USED TO ESTABLISH RW CENTER LINE. THESE MONUMENTS WERE USED IN CONJUNCTION WITH ODOT DRAWING 5B-11-10 AND ODOT DRAWING 11B-06-0004. STATIONING IS FROM ODOT DRG. 11B-06-0004. THE POINT OF SPIRAL TO CURVE (PSC) WAS ESTABLISHED AT MIDPOINT BETWEEN POINTS 400 AND 404. FROM THIS POINT, RECORD DATA WAS USED TO CALCULATE A LONG CHORD DISTANCE OF 396.35' FROM THE PSC TO THE POINT OF CURVE TO SPIRAL (PCS). THE PCS WAS ESTABLISHED USING SAID LONG CHORD DISTANCE AT A POINT 40 FEET FROM MONUMENT 405. THE RADIUS POINT WAS THEN ESTABLISHED USING RECORD DATA OF A 2° 00' CURVE AT 2864.789 FEET FROM THE PSC AND PCS. USING THE OREGON STANDARD HIGHWAY SPIRAL BOOK THE SPIRAL POINT OF INTERSECTIONS (SPI'S) WERE ESTABLISHED AT CALCULATED 'V' VALUES OF 133.40' ALONG THE LOCAL TANGENT FROM THE PSC AND PCS. THE POINT OF SPIRAL (PS) AND POINT OF TANGENCY (PT) USING THE RECORD SPIRAL ANGLE OF 4° 00' AT CALCULATED 'U' DISTANCE OF 266.73 FEET FROM SPI'S. EXTENDED TANGENT FROM PT TO INTERSECTION OF LINE SEGMENT FROM 402 TO 403. THE TOTAL CURVE WAS THEN ROTATED ABOUT ESTABLISHED PSC TO INTERSECT THE MIDPOINT OF LINE SEGMENT 402-403.

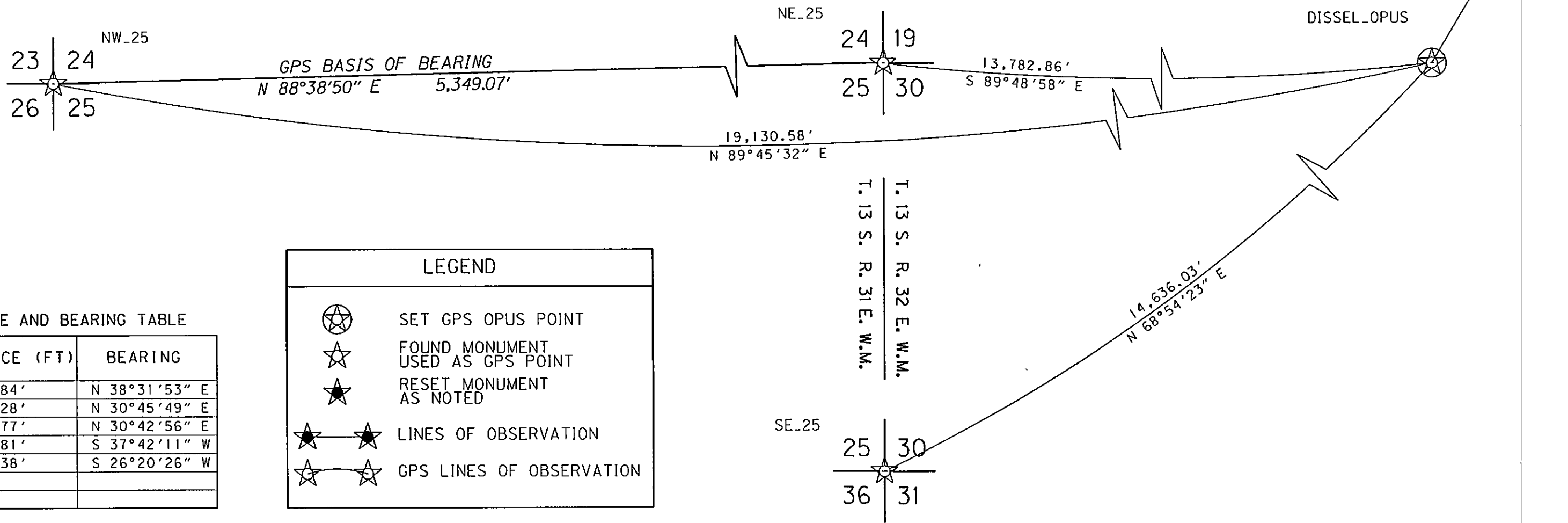
MONUMENTS 400, 401, 404, AND 405 WERE REFERENCED BEFORE CONSTRUCTION AND THEIR POSITION WAS RE-ESTABLISHED AFTER THE END OF CONSTRUCTION.

THE BASIS OF BEARING WAS ESTABLISHED BY GPS, USING AN OPUS SOLUTION AT POINT DISSEL_OPUS WHICH BEARS S.30°45'49"W. 289.28' FROM MON 401. THIS SURVEY UTILIZES A LOCAL DATUM PLANE (LDP) WHICH IS RELATIVE TO THE OREGON COORDINATE SYSTEM (OCS) OF 1983 (CORS96, EPOCH 2002), NORTH ZONE, WITH RESPECT TO THE LOCAL LATITUDE AND GROUND ELEVATION. THE LDP COORDINATES DEFINE TRUE GROUND DISTANCES. TO CONVERT THE LDP COORDINATES, FOR THE CONTROL POINTS, TO THE OREGON COORDINATE SYSTEM OF 1983(CORS96, EPOCH 2002), NORTH ZONE, MULTIPLY THE LDP COORDINATES BY 0.99982073.

REFERENCES

GRANT COUNTY CIRCUIT COURT CASE NO. 120249CV
GRANT COUNTY DEED INSTRUMENT NO. 20121515
OREGON DEPT. OF TRANSPORTATION DRAWING 5B-11-10
OREGON DEPT. OF TRANSPORTATION DRAWING 11B-06-0004
OREGON DEPT. OF TRANSPORTATION RIGHT-OF-WAY FILE NO. 7559002

BASIS OF BEARING AND
CONTROL NETWORK SCHEMATIC
NOT TO SCALE



NETWORK DISTANCE AND BEARING TABLE

AT	TO	DISTANCE (FT)	BEARING
400	401	584.84'	N 38°31'53" E
401	OPUS	289.28'	N 30°45'49" E
401	404	583.77'	N 30°42'56" E
404	405	400.81'	S 37°42'11" W
405	400	403.38'	S 26°20'26" W

LEGEND

- SET GPS OPUS POINT
- FOUND MONUMENT USED AS GPS POINT
- RESET MONUMENT AS NOTED
- LINES OF OBSERVATION
- GPS LINES OF OBSERVATION

NETWORK POINT COORDINATE TABLE

PT. NO.	LDP NORTHING	LDP EASTING	DATE	DESCRIPTION
NW_25	277,856.169	8,611,057.161	2/03/2011	FOUND 3 1/2" DIA. BLM BRASS CAP ON 2 1/2" IRON PIPE
NE_25	277,980.890	8,616,404.777	2/03/2011	FOUND 3 1/2" DIA. BLM BRASS CAP ON 2 1/2" IRON PIPE
SE_25	272,669.232	8,616,532.256	2/03/2011	FOUND 3 1/2" DIA. BLM BRASS CAP ON 2 1/2" IRON PIPE
DISSEL_OPUS	277,936.653	8,630,187.567	2/03/2011	SET 5/8" X 30" IRON ROD WITH 1 1/2" DIA. ALUMINUM CAP MARKED "ODOT"
400	278,642.722	8,630,699.850	11/20/2012	RESET 5/8" X 30" IRON ROD, W/ 1 1/2" DIA. ALUMINUM CAP MARKED "ODOT 2012", 0.1 FT FLUSH WITH GROUND, SET STEEL POST 1.0 FT. WEST
401	278,185.224	8,630,335.531	11/20/2012	RESET 5/8" X 30" IRON ROD, W/ 1 1/2" DIA. ALUMINUM CAP MARKED "ODOT 2012", 0.1 FT FLUSH WITH GROUND, SET STEEL POST 1.0 FT. EAST
404	278,687.103	8,630,633.709	11/20/2012	RESET 5/8" X 30" IRON ROD, W/ 1 1/2" DIA. ALUMINUM CAP MARKED "ODOT 2012", 0.1 FT ABOVE GROUND, SET STEEL POST 1.0 FT. WEST
405	279,004.221	8,630,878.832	11/20/2012	RESET 5/8" X 30" IRON ROD, W/ 1 1/2" DIA. ALUMINUM CAP MARKED "ODOT 2012", 0.1 FT ABOVE GROUND, SET STEEL POST 1.0 FT. WEST

OREGON DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY NETWORK MONUMENTATION MAP
DEAN CREEK BRIDGE NO. 21549
JOHN DAY HIGHWAY NO. 5
(U.S. 26) M.P. 166.83
GRANT COUNTY

ODOT REGION 5
3012 ISLAND AVE.
LA GRANDE, OR. 97850-9497

JUNE 20, 2012
NOT TO SCALE
SHEET 1 OF 2