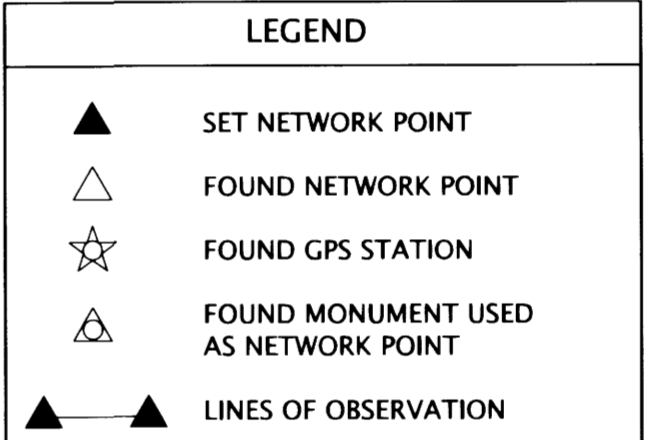
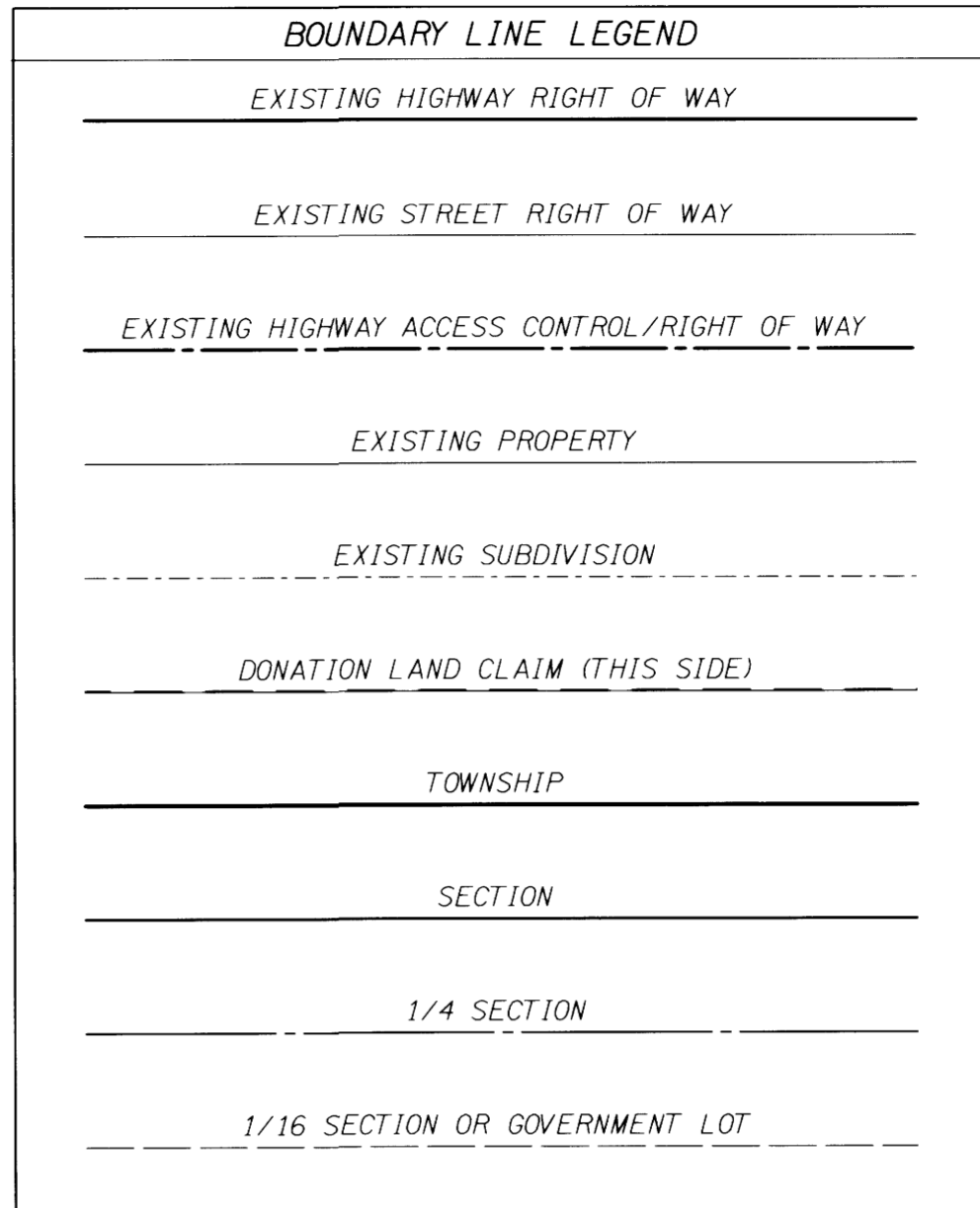


CALCULATED POINTS					DRG. = ODOT RIGHT OF WAY DRAWING
PT. NO.	OCRS NORTHING	OCRS EASTING	STATION	OFFSET (- IS LEFT)	DESCRIPTION
6137	138340.620	159023.720	"H2"20+50.43	41.00	CORRECTED POSITION FILED SURVEY ST. HWY. 138-015 RIGHT OF WAY ANGLE POINT INTERSECTION OF COUNTY ROAD PLAN SC09 1974-027 AND DEED 460-606 WITH DRG. 8B-22-1 AND DEED 314-557
6138	138344.320	158946.310	"H2"21+34.49	41.00	CORRECTED POSITION FILED SURVEY ST. HWY. 138-015 RIGHT OF WAY BEGINNING OF 245.48' RADIUS AT INTERSECTION OF COUNTY ROAD PLAN SC09 1974-027 AND DEED 452-506 WITH DRG. 8B-22-1 AND DEED 314-562
6200	138664.670	158599.640	"H2"26+45.65	41.00	INTERSECTION COUNTY RIGHT OF WAY DEED 541-85 & EAST LINE OF WEST COREY ST./FULLERTON AVE. BASED ON DEED 155-490
6201	138762.110	158603.000	"H2"27+17.95	106.41	INTERSECTION ORIGINAL NORTH LINE HARVARD AVE. (WHICH IS PARALLEL AND 25' NORTH OF TANGENT BETWEEN "H3"7+72.24 P.O.T. & "H3"8+07.40 P.C., SEE COUNTY ROAD PLAN SC09 1968-002) & EAST LINE OF WEST COREY ST./FULLERTON AVE. BASED ON DEED 155-490
6202	138758.510	158437.690	"H2"28+10.14	46.80	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16 (WHICH IS ON A LINE PARALLEL AND 25' NORTH OF TANGENT BETWEEN "H3"7+72.24 P.O.T. & "H3"8+07.40 P.C., SEE COUNTY ROAD PLAN SC09 1968-002)
6203	138771.950	158411.600	"H2"28+35.98	60.71	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16
6204	139163.650	158235.110	-	-	INTERSECTION RIGHT OF WAY DRG. 9B-6-16 & CENTER LINE VACATED WEST CHATHAM DRIVE
6205	139224.980	158234.730	-	-	CENTER LINE VACATED WEST CHATHAM DRIVE
6206	139255.650	158244.990	-	-	CENTER LINE VACATED WEST CHATHAM DRIVE
6207	139267.790	158229.100	-	-	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16
6208	139259.620	158207.060	-	-	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16
6209	139287.780	158120.980	-	-	SOUTHWEST CORNER LOT 25 VACATED WESTMORELAND ADDITION
6210	139387.780	158120.990	-	-	NORTHWEST CORNER LOT 25 VACATED WESTMORELAND ADDITION
6211	139173.310	157918.850	-	-	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16 & COUNTY SURVEY M166-33
6212	138747.310	157916.320	"H2"33+31.62	45.00	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16 & COUNTY SURVEY M166-33
6213	138614.020	157695.910	"H2"1+73.52	-84.31	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16
6214	138642.680	157659.800	"H2"2+09.10	-55.00	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16
6215	138751.690	157434.510	"H2"4+36.36	49.20	INTERSECTION OF PROPERTY LINE & A LINE PARALLEL AND 40' NORTH OF TANGENT BETWEEN "H3"7+72.24 P.O.T. & "H3"8+07.40 P.C., SEE COUNTY ROAD PLAN SC09 1968-002 DEED 377-153
6216	138750.610	157384.470	"H2"4+85.47	45.65	INTERSECTION OF PROPERTY LINE & A LINE PARALLEL AND 40' NORTH OF TANGENT BETWEEN "H3"7+72.24 P.O.T. & "H3"8+07.40 P.C., SEE COUNTY ROAD PLAN SC09 1968-002 DEED 377-153
6217	138747.950	157384.440	"H2"4+85.39	43.00	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16 DEED 703-813
6220	138750.290	157284.460	"H2"5+83.92	43.00	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16 DEED 703-813
6221	138752.290	157284.480	"H2"5+83.91	45.00	RIGHT OF WAY ANGLE POINT SEE DRG. 9B-6-16
6222	138751.600	157200.130	"H3"7+75.17	45.00	INTERSECTION DRG. 9B-6-16 & DRG. 1R-3-1579
6223	138776.760	157184.640	"H3"7+90.11	70.49	INTERSECTION DRG. 1R-3-1579 & UMPQUA ST.
6224	138772.910	157139.600	"H3"8+37.33	67.19	INTERSECTION DRG. 1R-3-1579 & WIDENED UMPQUA ST. DEED 1191-808
6225	138746.190	157117.630	"H3"8+60.00	40.00	RIGHT OF WAY ANGLE POINT SEE DRG. 1R-3-1579
6226	138744.283	157117.566	"H3"8+60.00	38.09	INTERSECTION DRG. 1R-3-1579 & WIDENED HARVARD AVE. DEED 394-783
6227	138744.106	157109.444	"H3"8+68.44	37.61	RIGHT OF WAY ANGLE POINT WIDENED HARVARD AVE. DEED 394-783
6228	138666.233	157114.963	"H3"8+60.00	-40.00	RIGHT OF WAY ANGLE POINT 1R-3-1579 & WIDENED HARVARD AVE. DEED 390-182
6229	138654.310	157133.723	"H3"8+41.83	-51.47	INTERSECTION DRG. 1R-3-1579 & UMPQUA ST.
6230	138648.196	157193.664	"H3"7+83.89	-58.24	INTERSECTION DRG. 1R-3-1579 & UMPQUA ST.
6231	138666.948	157218.791	"H2"6+50.00	-40.00	RIGHT OF WAY ANGLE POINT SEE DRG. 1R-3-1579



FILED
Date: 5/29/2018 By: JC
This survey consist of:
Map: ST HWY I5-029 A-D
Narrative:
Corner Rpt: DOUGLAS COUNTY SURVEYOR
REGISTERED PROFESSIONAL LAND SURVEYOR
MARSHALL R. WAGSTAFF
OREGON JANUARY 9, 2001 MARSHALL R. WAGSTAFF 49476LS
RENEWS: JUNE 30, 2018

NARRATIVE

PURPOSE
THE PURPOSE OF THIS SURVEY IS TO DOCUMENT THE POSITION OF EXISTING MONUMENTS AND RESOLVE THE EXISTING RIGHT OF WAY IN PREPARATION FOR A PROJECT NAMED "I-5: EXIT 124 SIGNAL UPGRADES & BELLOWS ST. REALIGN.". SURVEY FIELD WORK WAS PERFORMED BETWEEN MAY OF 2016 AND FEBRUARY OF 2018.

COORDINATES & BASIS OF BEARING
THE BEARINGS ARE BASED ON THE OREGON COORDINATE REFERENCE SYSTEM (OCRS) COTTAGE GROVE - CANYONVILLE ZONE, NAD 83(CORS96) EPOCH2002. THE OCERS COORDINATES ARE EQUAL TO OR CLOSE TO TRUE GROUND DISTANCES. ALL COORDINATES ARE IN INTERNATIONAL FEET.

HORIZONTAL CONTROL
ORIGINAL STATIC NETWORK POINT HILL, AND TERRESTRIAL NETWORK POINTS ANNIE AND 15 FROM FILED SURVEYS ST. HWY. 138-015 & 138-016 FORM THE BASIS OF BEARING FOR THIS PROJECT AND WERE USED AS PRIMARY PROJECT CONTROL. A TOTAL STATION WAS USED TO COMPLETE A HORIZONTAL CONTROL NETWORK CONSTRAINING TO THE PRIMARY CONTROL POINTS AND A LEAST SQUARES ADJUSTMENT WAS APPLIED. POINTS SHOWN IN THE NETWORK OBSERVATION TABLE HAVE AN EXPECTED HORIZONTAL ACCURACY OF 0.03 FEET OR LESS. ALL OTHER HORIZONTAL CONTROL POINTS & RECOVERED MONUMENTS WERE DOUBLE TIED USING TERRESTRIAL OR REAL TIME KINEMATIC (RTK) GPS METHODS AND HAVE AN EXPECTED HORIZONTAL ACCURACY OF 0.06 FEET OR LESS.

HORIZONTAL CONTROL EQUIPMENT
A LEICA VIVA TS16 TOTAL STATION WAS USED FOR GATHERING TOPOGRAPHIC DATA AND RUNNING THE HORIZONTAL CONTROL NETWORK. IT HAS THE FOLLOWING ACCURACY: STANDARD ANGULAR ERROR +/- 1 SECOND; STANDARD DISTANCE ERROR OF +/- 1MM, + 1.5 PPM.

A LEICA GS14 DUAL FREQUENCY GPS RECEIVER WAS USED FOR GPS OBSERVATIONS. IT HAS THE FOLLOWING ACCURACY: POST PROCESSED PHASED DIFFERENTIAL STATIC METHOD HORIZONTAL ERROR OF 3 MM + 0.5 PPM, AND A VERTICAL ERROR OF 5 MM, + 0.5 PPM; NETWORK REAL-TIME KINEMATIC (RTK) METHOD HORIZONTAL ERROR OF 8 MM + 0.5 PPM, AND A VERTICAL ERROR OF 15 MM, + 0.5 PPM.

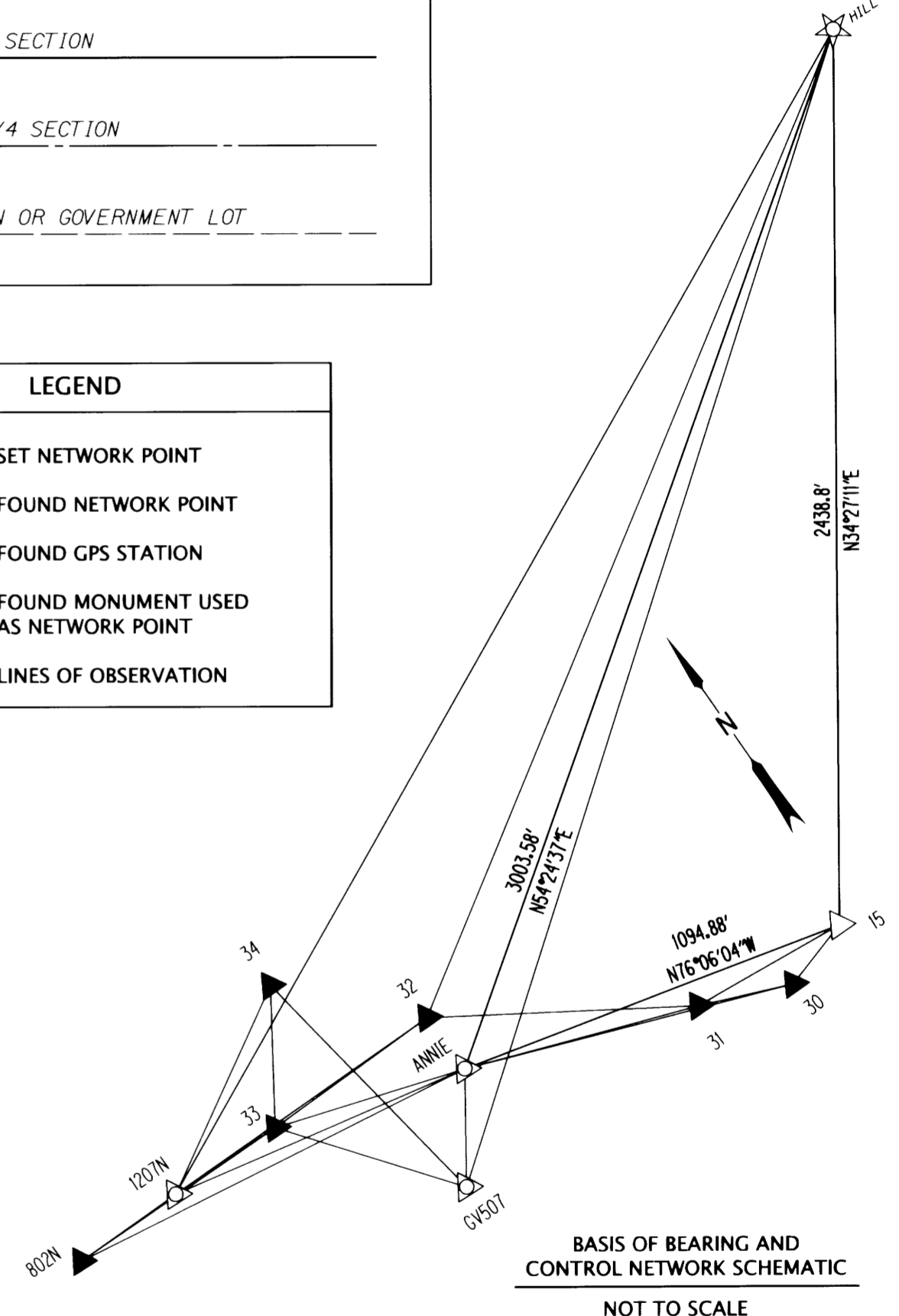
VERTICAL CONTROL
BENCH MARKS "A253", "N554" AND "N749" WITH NAVD 88 DATUM ELEVATIONS WERE HELD FOR VERTICAL CONTROL. A LEVEL CIRCUIT WAS RUN TO ESTABLISH ELEVATIONS ON SELECTED CONTROL AND STRATEGIC POINTS. ALL ELEVATIONS SHOWN IN TABLES ON THIS SURVEY ARE FROM THE LEVEL CIRCUIT HOLDING SAID BENCHMARKS AND HAVE AN EXPECTED VERTICAL ACCURACY OF 0.03 FEET OR LESS.

VERTICAL CONTROL EQUIPMENT
LEICA NA2002 AND DNA10 DIGITAL LEVELS WERE USED ALONG WITH A LEICA GBNL4C ALUMINUM LEVEL ROD TO COMPLETE THE LEVEL CIRCUITS. THESE INSTRUMENTS HAVE THE FOLLOWING STANDARD DEVIATION OF 1.5MM IN A 1 KILOMETER DOUBLE RUN LEVEL CIRCUIT.

NORTH UMPQUA HIGHWAY
THE NORTH UMPQUA HIGHWAY RIGHT OF WAY/ HARVARD AVENUE WAS RESOLVED USING ODOT RIGHT OF WAY DRAWINGS (DRG.) 8B-22-1, 9B-6-16, 1R-3-1579, 11B-7-5; COUNTY ROAD PLANS SC09 1968-002, SC09 1968-003, AND SC09 1974-027; AND THE "WEST ROSEBURG", "TAYLOR SUBDIVISION", AND "WESTMORELAND ADDITION" PLATS RECORDED AT THE DOUGLAS COUNTY SURVEYOR'S OFFICE. DRG. 8B-22-1, 9B-6-16, AND 1R-3-1579 SHARE THE SAME ORIGINAL BASIS OF BEARING. THE HARVARD AVENUE RIGHT OF WAY CENTER LINE USES THE "H2" & "H3" CENTER LINE DESIGNATORS. THE "H2" "H3" AND "H7" CENTER LINES FROM DRG 9B-6-16 WESTERLY OF THE FREEWAY HELD THE RECORD OFFSET AND STATION OF POINT 1188 AND WAS ROTATED TO THE RECORD OFFSET FROM POINT 1182. THE "H7" CENTER LINE IS NOT SHOWN TO AVOID UNNECESSARY CLUTTER/CONFUSION AND WAS NOT USED TO PURCHASE RIGHT OF WAY EASTERLY OF THE FREEWAY. I RAN THE "H2" CENTER LINE ALONG OLD "H7" TANGENT WESTERLY OF "H2"27+43.38 P.I. UP TO THE EQUATION. THERE WERE NO MONUMENTS TO FIT ON THE TANGENT IN FRONT OF THE HIGH SCHOOL SO I ATTEMPTED TO USE RECORD CENTER LINE DATA TO RESOLVE THE TANGENTS WORKING FROM BOTH ENDS OF THE HIGHWAY SECTION SHOWN IN THIS SURVEY, BUT THEY DIDNT FIT THE CURB & WALK LIKE THEY SHOULD SO I USED THE RECORD ORIGINAL CURBS OFFSETS TO THE "H7" CENTER LINE FROM STATE HIGHWAY DIVISION CONSTRUCTION PLANS 11V-220 PRIOR TO THE RECENT CURB AND WALK WORK IN THE AREA. BETWEEN "H7"7+49.61 P.T. AND "H7"10+21.7 THE POSITIONAL RELATIONSHIP BETWEEN THE TANGENTS OF "H7", "H2", AND THE UNDESIGNATED CENTER LINE I DESIGNATED "8B" SHOWN ON DRG 8B-22-1 WAS HELD. THE ROTATED "H2" AND "8B" TANGENTS WERE EXTENDED WESTERLY TO THEIR INTERSECTION WITH THE TANGENTS WESTERLY OF THE FREEWAY AND ALSO EASTERLY TO THEIR INTERSECTION WITH THE RECORD "H" BACK TANGENT FROM FILED SURVEY ST. HWY. 138-015 WHICH IS NOW RE-DESIGNATED THE "H2" CENTER LINE. THE TANGENT OF "8B" WESTERLY OF "8B"6+19.61 P.I. WAS HELD PARALLEL AT ITS CALCULATED OFFSET WITH THE "H7" CENTER LINE USING BOTH DRG 8B-22-1 AND 9B-6-16. THE RECORD STATION OF THE "H" BACK TANGENT FROM FILED SURVEY ST. HWY. 138-015 WAS HELD. THE "8B" CENTER LINE WAS USED TO CORRECT THE POSITION OF CALCULATED POINTS 6137 AND 6138 FROM FILED SURVEY ST. HWY. 138-015 WHERE THE RIGHT OF WAY PURCHASED BY THE STATE LIES OUTSIDE OF THE RIGHT OF WAY SUBSEQUENTLY PURCHASED BY DOUGLAS COUNTY. MODIFICATION OF THE FORWARD TANGENT OF THE "H" CENTER LINE FROM FILED SURVEYS ST. HWY. 138-015 AND 138-016 CAUSED THE MOST EASTERLY CURVE TO CHANGE. THE 41 FOOT RIGHT OF WAY ALONG THE HARVARD AVENUE FRONTAGE OF ROSEBURG HIGH SCHOOL IS BASED ON THE DEED IN BOOK 541, PAGE 85 WHERE PROPERTY WAS TRADED/SOLD BETWEEN DOUGLAS COUNTY AND THE SCHOOL DISTRICT.

PACIFIC HIGHWAY
THE POSITION OF WESTMORELAND ADDITION WAS RESOLVED BY HOLDING THE ORIGINAL NORTHEAST CORNER UMPQUA ST. & HARVARD AVE. AND ROTATING COUNTY SURVEY M5-68 TO MATCH THIS SURVEYS BASIS OF BEARING FOR THE ORIGINAL NORTH LINE OF HARVARD. M5-68 WAS USED FOR THE EXTERIOR BOUNDARY OF WESTMORELAND ADDITION. THE INTERIOR LOT LINES WERE LAYED OUT USING THE ORIGINAL PLAT. THE PACIFIC HIGHWAY RIGHT OF WAY (CALCULATED POINTS 6202 - 6210) WAS RESOLVED HOLDING LOT AND BLOCKS CALLS FROM WESTMORELAND ADDITION AS PER DRG 9B-6-16.

PLEASE NOTE:
CONTROL MONUMENTS SHOWN ON THIS SURVEY DO NOT REPRESENT PROPERTY LINE OR RIGHT OF WAY LINES. THEY ARE INTENDED TO PERPETUATE THE ALIGNMENTS AND RIGHT OF WAY DEVELOPED FOR THIS PROJECT IN CONFORMANCE WITH ORS 209, SECTION 155. I DID THE BEST I COULD TO RESOLVE THE POSITIONS OF THE CALCULATED POINTS SHOWN ON THIS SURVEY USING THE MONUMENTS TIED. THE FURTHER CALCULATED POINTS ARE FROM TIED MONUMENTS THE MORE INHERENT ERROR THERE WILL BE IN SAID CALCULATED POINTS. USE AT YOUR OWN RISK.



OREGON DEPARTMENT OF TRANSPORTATION
HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
I-5: EXIT 124 SIGNAL UPGRADES & BELLOWS ST. REALIGN.
PACIFIC & NORTH UMPQUA HIGHWAYS
DOUGLAS COUNTY
FILE : S_K20694_CRR_01.DGN MODEL : CRR
FOR ODOT REGION 3
3500 NW. STEWART PARKWAY
ROSEBURG, OR 97470
MAY 23, 2018
SHEET 2 OF 4

ST HWY I5-029B