

SE 1/4 SECTION 22 T21S R12W WM
NE 1/4 SECTION 27 T21S R12W WM

FILED
Date: 4-12-2022 By: DE
This survey consists of:
Map: ST HWY 101-011A-C
Narrative:
Corner Rpt:
DOUGLAS COUNTY
SURVEYOR

NARRATIVE:

PURPOSE OF THE SURVEY:

THE PURPOSE OF THIS SURVEY IS TO ESTABLISH PERMANENT HORIZONTAL CONTROL, RECOVER AND PERPETUATE EXISTING MONUMENTS, AND TO RESOLVE THE LOCATION OF THE EXISTING RIGHT OF WAY CENTERLINE OF OREGON COAST HIGHWAY (US 101) FOR THE PROPOSED OREGON DEPARTMENT OF TRANSPORTATION (ODOT) DOUGLAS COUNTY ADA CURB RAMP PROJECT, KEY NUMBER 22387. THIS SURVEY MEETS THE REQUIREMENTS OF ORS 209.155. ADJOINING BOUNDARY LINES HAVE NOT BEEN RESOLVED IN THIS SURVEY BUT ARE SHOWN PER EXISTING SURVEYS OR OTHER AVAILABLE INFORMATION. FIELDWORK WAS PERFORMED FROM JANUARY 20, 2021, TO OCTOBER 27, 2021.

GARDINER PROJECT CONTROL:

THE BASIS OF BEARINGS AND COORDINATES FOR THIS SURVEY IS THE OREGON COORDINATE REFERENCE SYSTEM (OCRS), OREGON COAST ZONE. THE OCRS NORTHING AND EASTING PROJECTION PARAMETERS ARE REFERENCED IN O.A.R. 734-005-0015. HORIZONTAL DATUM IS NAD 83 (2011) EPOCH 2010.00. ALL LINEAR VALUES ARE EXPRESSED IN INTERNATIONAL FEET. PRIMARY CONTROL CONSISTS OF TWO PRIMARY PROJECT CONTROL STATIONS AND TWO SECONDARY CONTROL STATIONS. TWO HOUR STATIC SESSIONS WERE OBSERVED AT PROJECT CONTROL STATIONS 1 AND 4. ALL PROJECT CONTROL STATION POSITIONS WERE ESTABLISHED USING A COMBINATION OF GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) OBSERVATIONS, TERRESTRIAL TOTAL STATION MEASUREMENTS, AND DIGITAL LEVEL OBSERVATIONS.

GNSS BASELINE VECTORS, TOGETHER WITH TERRESTRIAL OBSERVATIONS, WERE ADJUSTED USING LEAST SQUARES (STARNET V9.0). THE NETWORK WAS CONSTRAINED BY HOLDING THE PUBLISHED OREGON REAL-TIME GNSS NETWORK (ORGN) LATITUDE AND LONGITUDE OF THREE CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS): REED, LPSB, AND P732. THE RESULTING ERROR SEMI-MAJOR AXIS LENGTHS, AT THE 95% CONFIDENCE LEVEL FOR PRIMARY AND SECONDARY CONTROL POINTS, WERE UNDER 0.03 FEET IN ABSOLUTE ACCURACY. FINAL PROJECT COORDINATES WERE ESTABLISHED BY PROJECTING THE ADJUSTED NETWORK POSITIONS TO THE OCRS, OREGON COAST ZONE, REPRESENTING APPROXIMATE GROUND DISTANCES. ALL OBSERVATIONS WERE MADE IN JANUARY 2021, UTILIZING LEICA MS50 TOTAL STATION AND LEICA GS14 GNSS RECEIVERS WITH CS15 DATA COLLECTOR.

MONUMENT TIES:

HORIZONTAL POSITIONS OF THE FOUND MONUMENTS WERE OBTAINED USING TWO METHODS: REAL-TIME KINEMATIC (RTK) GPS MEASUREMENTS AND TERRESTRIAL OBSERVATIONS FROM HORIZONTAL CONTROL WHERE RTK WAS NOT FEASIBLE. GPS MONUMENTS WERE OBSERVED TWICE, WITH A MINIMUM OF FORTY-FIVE MINUTES BETWEEN RTK OBSERVATIONS, AND THEN MEANING THE VALUES.

CENTERLINE RESOLUTION:

A BEST FIT RESOLUTION WAS UTILIZED IN ORDER TO MAINTAIN THE GEOMETRIC RELATIONSHIP AND STATIONING OF THE CENTERLINE ALIGNMENT AS SHOWN FOR THE OREGON COAST HIGHWAY NO. 009 (US 101) PER ODOT ROLL MAP 5B-31-5, DATED FEBRUARY 1941 AND ODOT ROLL MAP 1B-10-6 DATED MARCH 1928. THE RESOLUTION FOR THIS SURVEY IS APPROXIMATELY 633+00 TO APPROXIMATELY 642+00 PER ODOT ROLL MAP 5B-31-5. THE CENTERLINE ALIGNMENT AND THE WEST RIGHT-OF-WAY LINE AS SHOWN ON SAID ODOT ROLL MAPS WERE CALCULATED USING FOUND MONUMENTS FROM VARIOUS SURVEYS AND THE FOUND MEANDER CORNER MONUMENT BETWEEN SECTIONS 22 AND 27, TOWNSHIP 22 SOUTH, RANGE 12 WEST, WM., PER ODOT ROLL MAP 5B-31-5. SAID ROLL MAP WAS HELD TO DETERMINE A 40.00 FOOT RIGHT-OF-WAY LINE EAST OF CENTERLINE OF SAID OREGON COAST HIGHWAY, AND SAID RIGHT-OF-WAY LINE AND IS PARALLEL AND EAST 0.50 FEET OF A LINE BETWEEN THE SAID MEANDER CORNER (MONUMENT 3008) AND A FOUND TACK IN LEAD SET IN SURVEY CS 55-115-1, DOUGLAS COUNTY RECORDS (MONUMENT 3003), SAID MONUMENTS WERE HELD FOR THE DEED LINE OF THE AMENDED MAP OF THE TOWN OF GARDINER, DOUGLAS COUNTY RECORDS. SAID DEED LINE IS ALSO 39.5 FEET EAST OF THE CENTERLINE OF THE SEMI-TANGENT OF THE SAID OREGON COAST HIGHWAY TO THE SAID MEANDER CORNER PER SAID ODOT ROLL MAP. MONUMENT 2202 WAS HELD FOR STATION 631+95.30 P.C.S. ONLY PER SURVEY M153-34 AND ODOT ROLL MAP 5B-31-5. THE WEST RIGHT-OF-WAY LINE FOR SAID OREGON COAST HIGHWAY WAS ESTABLISHED BY OFFSETTING THE CENTERLINE 50.00 FEET WEST PER ODOT ROLL MAP 5B-31-5. THE LOCATION CENTERLINE ALIGNMENT FOR ODOT ROLL MAP 1B-10-6 IS APPROXIMATE AND INTENDED TO SHOW THE RELATIONSHIP BETWEEN SAID ALIGNMENT AND THE ALIGNMENT OF ODOT ROLL MAP 5B-31-5. STATION PI 631+36.40 OF ALIGNMENT 1B-10-6 WAS HELD 30.00 WESTERLY OF THE ANGLE POINT OF THE EASTERLY RIGHT-OF-WAY AT MONUMENT 3002. ALIGNMENT 1B-10-6 WAS THEN HELD 10.00 FEET EASTERLY AND PARALLEL TO ALIGNMENT 5B-31-5 FROM ALIGNMENT 5B-31-5 STATION TS 641+77.40 TO BACK STATION ST 635+95.30. THE BEARINGS, CURVES, AND STATIONING, FROM ROLL MAP 1B-10-6 WERE USED TO CALCULATE THE REMAINDER OF THE ALIGNMENT. NO RELATIONSHIPS BETWEEN SAID ODOT ROLL MAPS WERE FOUND WITHIN THE LIMITS OF THIS SURVEY TO CALCULATE THE TRUE LOCATION OF ALIGNMENT 1B-10-6, NOR WERE THERE ANY MONUMENTS FOUND THAT RELATE TO SAID ALIGNMENT TO HELP CALCULATE A TRUE LOCATION. THE RELATION OF THE ANGLE POINT OF PI 631+36.40 AND THE ANGLE POINT OF THE EASTERLY RIGHT-OF-WAY APPEAR TO BE THE BEST EVIDENCE OF THE LOCATION OF THE PI STATION FOR ALIGNMENT 1B-10-6.

NARRATIVE CONTINUED:

MONUMENTS 3001, 3002, AND 3006 WERE HELD FOR THE EAST RIGHT OF WAY LINE AND EXTENDED NORTH TO THE INTERSECTION OF SAID LINE AND A 40.00 FOOT OFFSET LINE EAST OF CENTERLINE OF SAID OREGON COAST HIGHWAY FROM APPROXIMATELY 642+00 TO APPROXIMATELY 648+00.

SPRING STREET:

NO MONUMENTS WERE RECOVERED IN THE VICINITY OF SPRING STREET AND IS SHOWN ON THIS SURVEY AS A REFERENCE ONLY PER SAID AMENDED MAP OF THE TOWN OF GARDINER. THE NORTH RIGHT OF WAY LINE OF COMMERCIAL STREET WAS OFFSET 250.00 FEET NORTH PER THE AMENDED MAP OF THE TOWN OF GARDINER, DOUGLAS COUNTY RECORDS, TO SHOW THE APPROXIMATE LOCATION OF SPRING STREET.

COMMERCIAL STREET:

MONUMENTS 3001 AND 2205, WERE HELD TO ESTABLISH THE SOUTH RIGHT-OF-WAY AND THEN OFFSET 49.50 FEET NORTH PER THE SAID AMENDED MAP OF THE TOWN OF GARDINER. SAID MONUMENTS FIT THE CALCULATED DISTANCE FROM THE INITIAL POINT OF THE SAID AMENDED MAP. POINTS 2206, 2207, 2208, AND 2210 FALL APPROXIMATELY 0.50 FEET NORTH OF THE CALCULATED NORTH RIGHT-OF-WAY LINE AND DO NOT FIT THE 49.5 FEET RECORD WIDTH AND WERE NOT HELD. JEWETT LANE: THE NORTH FACE OF A CONCRETE WALL WAS HELD TO ESTABLISH THE SOUTH RIGHT-OF-WAY LINE OF JEWETT LANE AS NOTED IN BOOK 1505, PAGE 509, DOUGLAS COUNTY CLERK RECORDS (DOCUMENT 2016-005271). THE NORTH RIGHT-OF-WAY LINE WAS ESTABLISHED BY OFFSETTING THE SOUTH RIGHT-OF-WAY LINE 22.00 FEET PER SAID AMENDED MAP OF THE TOWN OF GARDINER. FOUND MONUMENTS 2209, AND 2211 FALL APPROXIMATELY 0.25 FEET SOUTH OF RELATED RIGHT-OF-WAY LINES, WITH MONUMENT 2212 FALLING 0.25 FEET NORTH OF THE NORTH RIGHT OF WAY LINE.

PITT STREET:

THE SOUTH FACE OF A CONCRETE WALL WAS HELD TO ESTABLISH THE NORTH RIGHT-OF-WAY LINE OF PITT STREET AS NOTED IN BOOK 1058, PAGE 499, DOUGLAS COUNTY CLERK RECORDS (DOCUMENT 2009-007883). THE SOUTH RIGHT-OF-WAY LINE WAS ESTABLISHED BY OFFSETTING THE NORTH RIGHT-OF-WAY LINE 30.00 FEET SOUTH PER SAID AMENDED MAP OF THE TOWN OF GARDINER AND MATCHES RECORD DISTANCE OF SAID AMENDED PLAT (161.60 RECORD AND CALCULATED). FOUND MONUMENT 3007 WAS WITHIN 0.48 FEET OF THE SOUTH RIGHT-OF-WAY LINE.

REFERENCES:

DOUGLAS COUNTY SURVEYS	SUBDIVISION PLATS	BOOK AND PAGE
CS 51-252-002	AMENDED MAP OF THE	VOL 2, PG 29
CS 55-115-001	TOWN OF GARDINER	BK 1058, PG 499
CS 63-120-001		BK 1505, PG 509
CS 63-131-001		
M 102-32	ODOT ROLL MAPS	
M 102-35		
M 121-12		
M 136-13	5B-31-5	
M 138-77	1B-10-6	
M 153-34		
M 170-24		
M 11-24		

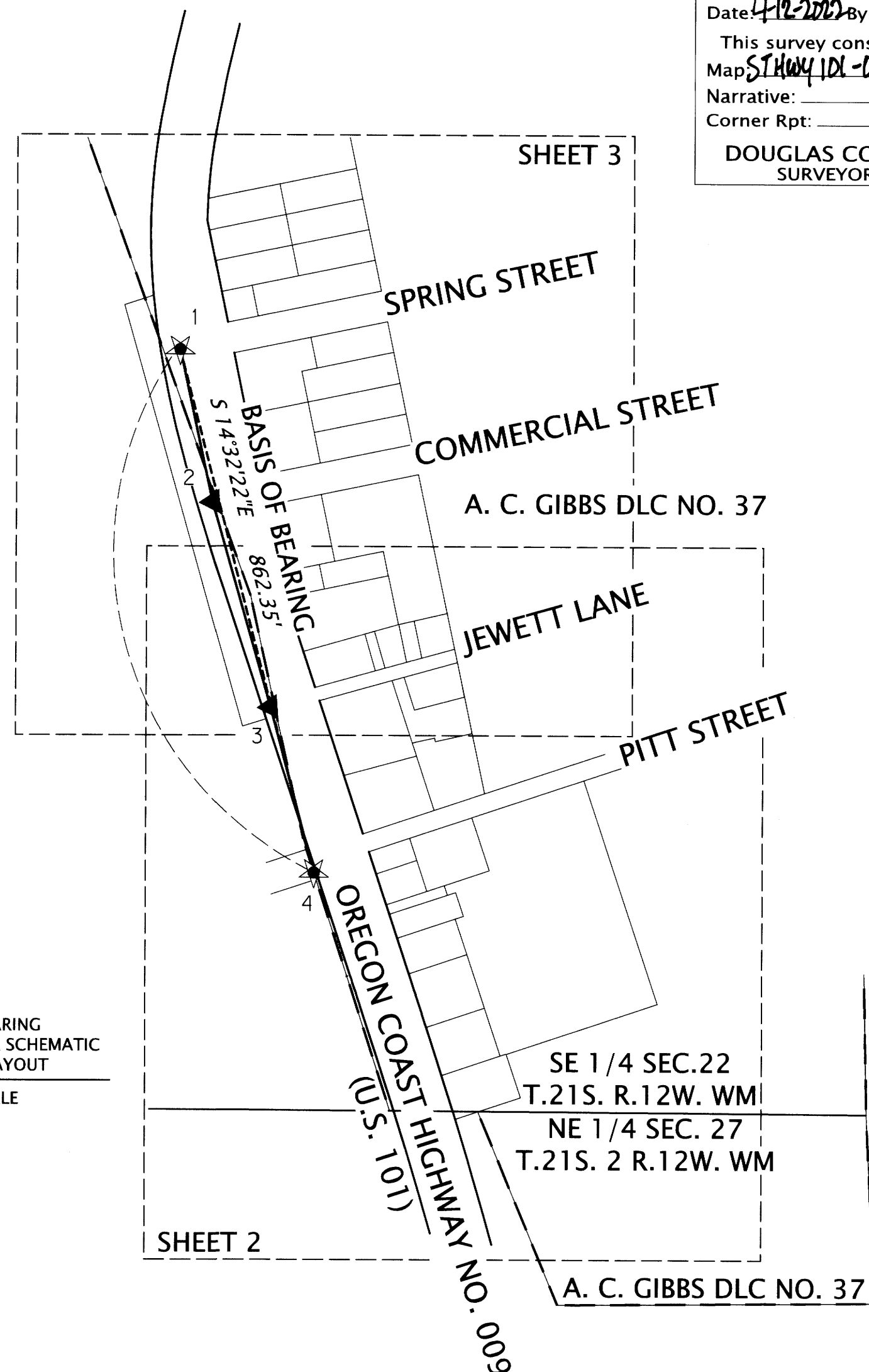
CONTROL COORDINATE TABLE

PT. NO.	OCRS NORTHING	OCRS EASTING	STATION	OFFSET	DATE	DESCRIPTION
1	839018.820	425751.020	645+98.85	18.56 L	1/20/2021	SET 1-1/8" COPPER DISK "D.E.A. CONTROL", FLUSH IN CONCRETE
2	838775.150	425803.560	643+52.21	24.72 L	1/20/2021	SET 1-1/8" COPPER DISK "D.E.A. CONTROL", FLUSH IN CONCRETE
3	838448.490	425897.170	640+13.32	36.76 L	1/20/2021	SET 1-1/8" COPPER DISK "D.E.A. CONTROL", FLUSH IN CONCRETE
4	838184.090	425967.510	637+40.20	52.92 L	1/20/2021	SET 1-1/8" COPPER DISK "D.E.A. CONTROL", FLUSH IN CONCRETE

LEGEND	
	SET NETWORK POINT
	LINES OF OBSERVATION
	SET GPS POINT
	GNSS OBSERVATION
	BASIS OF BEARING

DAVID EVANS AND ASSOCIATES INC.
2100 S River Parkway, Suite 100
Portland Oregon 97201
Phone: 503.223.6663

REGISTERED PROFESSIONAL LAND SURVEYOR
ROBERT R. JACKSON
JANUARY 10, 2006
47721
RENEWS: 6/30/2023

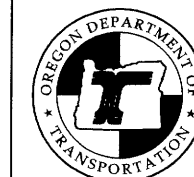


SHEET INDEX:

SHEET 1: NARRATIVE, REFERENCE DOCUMENTS, SHEET LAYOUT, GPS NETWORK, NETWORK POINT LIST, AND LEGEND
SHEET 2 - 3: RECOVERED MONUMENT LIST, PROJECT RECOVERY, AND LEGEND

OREGON DEPARTMENT OF TRANSPORTATION

HORIZONTAL CONTROL, RECOVERY AND RETRACEMENT MAP
REGION 3 DISTRICT 7 DOUGLAS AND COOS COUNTY CURB RAMPS
OREGON COAST HIGHWAY NO. 009 (US 101)
MILEPOSTS 209.4 TO 209.7
CITY OF GARDINER
DOUGLAS COUNTY, OREGON



ODOT REGION 3 HEADQUARTERS
3500 NW STEWART PARKWAY
ROSEBURG, OREGON KEY NO. 22387

FEBRUARY 3, 2022
SCALE: NONE
SHEET 1 OF 3