

**OREGON
DEPARTMENT
OF
TRANSPORTATION**

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Engineering Automation Section
Geometronics Unit*

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**Manual for
Survey Control Data Sheets for
Construction Plans**



21 June 2017

Revision History

28 April 2017 - Beta Release - Draft

26 May 2017 - Draft Release -

6 June 2017 - Original Release

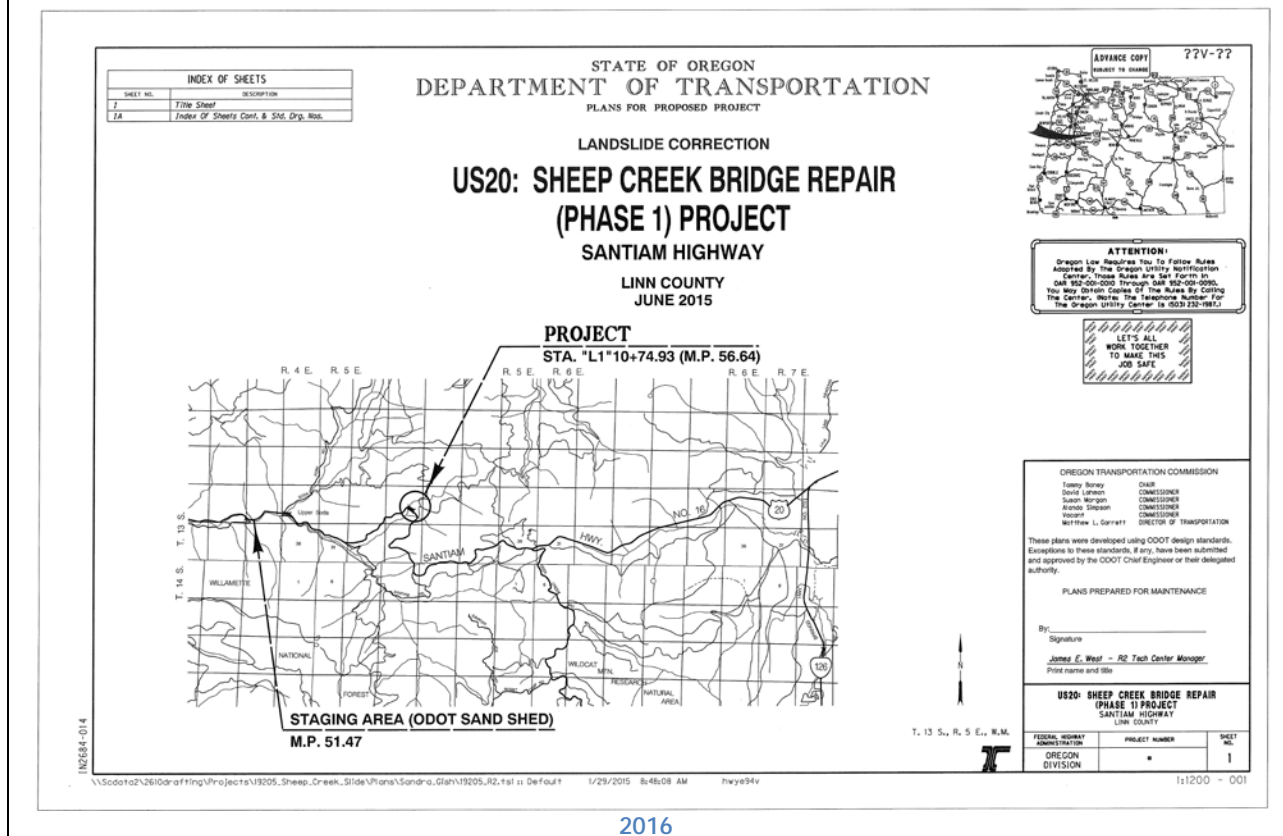
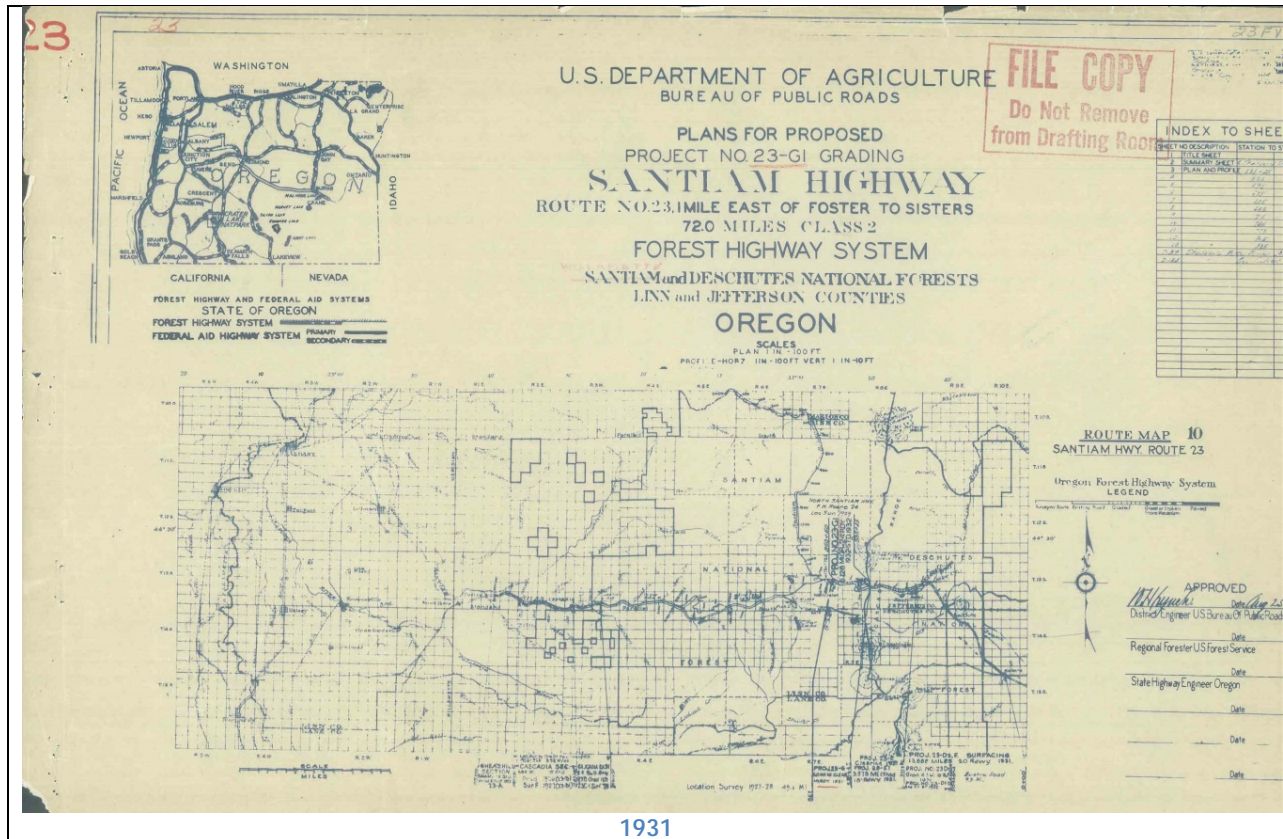
21 June 2017 -

Remove verbiage about modifying "Title Block" added verbiage about referencing roadway drafters "Nam" file for Title block information.

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ODOT Drafting Manual for “Survey Control Data” Construction Plan Sheets

Introduction

As you see many things have not changed over the years with the way our plans look overall! Technology definitely has...

All projects that have survey control need a “Survey Control Data” plan sheet made for the construction contract plans. This manual provides guidance of what needs to be shown and the level of required detail. **Any deviations to this guidance needs concurrence from the Chief of Surveys.** This manual was created to supplement the ODOT standards for Contract Plans Manual (CPM) and is a survey discipline specific manual. Most other disciplines have similar manuals to aid in creating uniform project plan sheets across the State.

Our goal is to stay with the KISS principle “Keep It Simple Surveyor”..

Workflow:

Start with a clean 2dseed.dgn from the ODOT workspace.

Follow the ProjectWise naming convention: S_K#####_scd_##.ext and the final location for the 11” X 17” PDF will be in the (2_Plan_Sheets) domain for the Project.

Reference in your CRR(can merge to Master if more manipulation is needed) and if using a Topo file (logically name the topo reference “exist” this allows the topo to be gray scaled back when using the RW pen table).

(The pen table is scheduled to be updated to recognize the border auto path).

The plan Sheet border will be the ODOT standard from the cell library per the CPM.

The title block will be the ODOT standard from the cell library per the CPM.

Coordinate with your Project drafter (typically Roadway) for referencing in the Project “Nam” file (official plan set project name).

The overall preference is to use tables for the control point information. This will be the most convenient since typically we already have the table created for our Control, Recovery, and Retracement map (CRR). You may need to scale or re-size the table and data based on how it was created.

Keep the text and symbol size consistent and according to the CPM. Other forms of control information can be used based on the layout of the sheet or project. (i.e point notes)

The overall schematic will be left up to the office creating it. Remember to keep it clean and a consistent text size (some editing may be needed). Turn off text, utilities, DLC lines and other items that clutter the drawing. The goal is to create a simple schematic for documenting the project control in the plan set.

Refrain from showing conflicting information (i.e. Alignments, Station and Offsets Etc.) that is labeled or shown differently in the Main Plans. As you know, our Alignments are usually renamed for clarity. (i.e. "RW" is usually added as Pre-fix)

Items that shall be shown on the sheet include:

- Scale Bar or note "NOT TO SCALE" as applicable
- North Arrow
- Legend
- Section, Township and Range Labels
- Plan No. and Sheet No.
- Additional plan notes as directed by the plan set coordinator (drafter, designer, etc.) This could include a Project Title for example.

The following NOTES shall be included on the sheet. The text size and style shall be consistent for all notes. An "Italics" text style can be used for contrast from other text on the sheet.

- 1) *Coordinate System:*
- 2) *Horizontal Datum:*
- 3) *Vertical Datum:*
- 4) *Survey of Record:* (if applicable, i.e. Control, Recovery and Retracement Survey filed with the County)
- 5) *Field verify all control before use!*

Samples of each layout have been included for reference.

Roles and Responsibilities

Lead Surveyors:

QA/QC all products leaving your office for standard, consistency and clarity.

Keep abreast of changing standards.

Communicate with Chief of Surveys for deviations.

Project Surveyors:

Keep the data clean and simple.

Send your work through several QA/QC reviews.

Keep with the standards set by the CPM and this manual.

Communicate with Chief of Surveys for deviations.

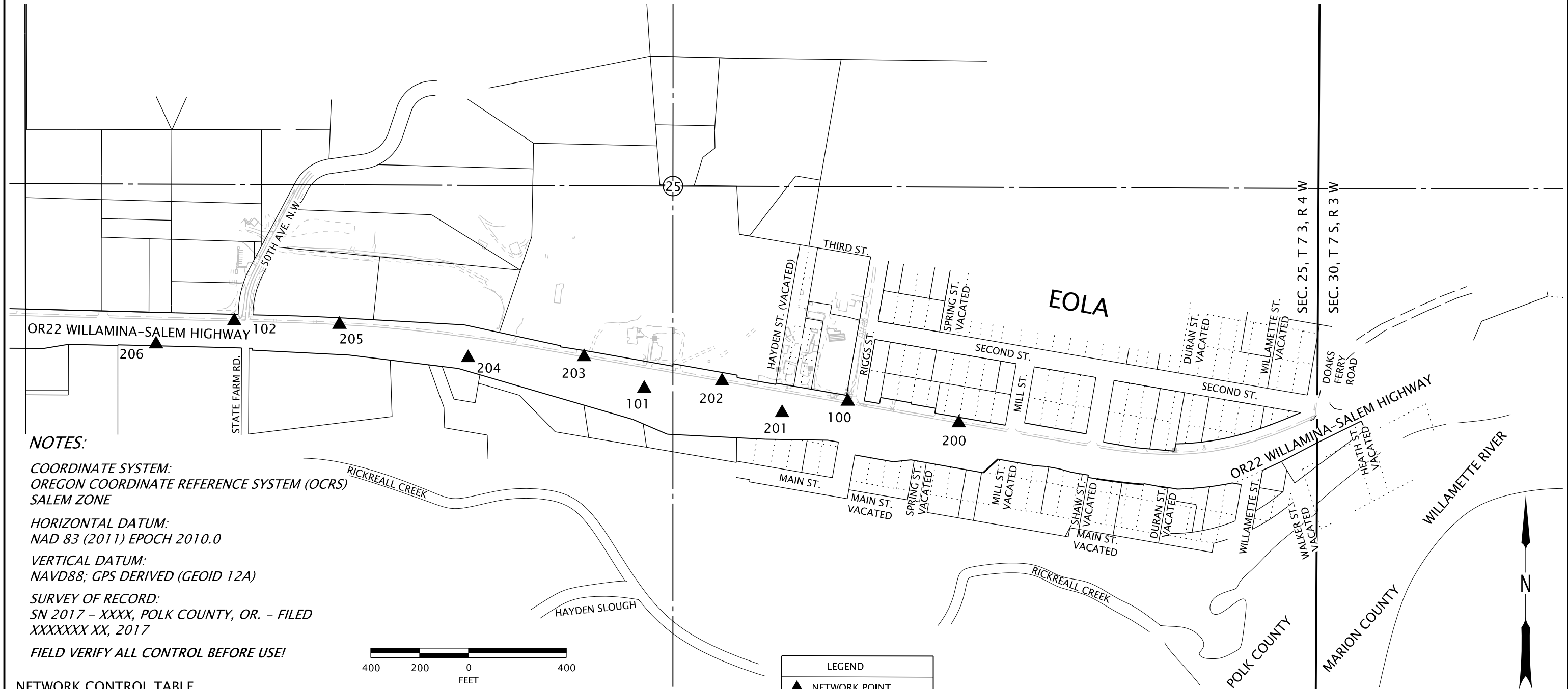
Contract Plans Manual(CPM)

http://www.oregon.gov/ODOT/HWY/ENGSERVICES/Pages/contact_plans_dev_guide_home.aspx

Contract Plans Title Block Section

http://www.oregon.gov/ODOT/HWY/ENGSERVICES/docs/manual/vol_1/V1-03_TitleBlock.pdf

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NOTES:
 COORDINATE SYSTEM:
 OREGON COORDINATE REFERENCE SYSTEM (OCRS)
 SALEM ZONE
 HORIZONTAL DATUM:
 NAD 83 (2011) EPOCH 2010.0
 VERTICAL DATUM:
 NAVD88; GPS DERIVED (GEOID 12A)
 SURVEY OF RECORD:
 SN 2017 - XXXX, POLK COUNTY, OR. - FILED
 XXXXXX XX, 2017
 FIELD VERIFY ALL CONTROL BEFORE USE!



LEGEND	
▲	NETWORK POINT

NETWORK CONTROL TABLE

POINT	OCRS NORTHING	OCRS EASTING	NAVD 88 ELEVATION	DESCRIPTION:
100	218090.556	154573.635	204.31	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 100" (SITE BENCH MARK)
101	218143.538	153740.364	205.67	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 101"
102	218419.553	152062.571	186.84	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 102"
200	218001.904	155027.835	207.30	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 200"
201	218043.928	154304.693	205.44	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 201"
202	218173.351	154059.215	206.46	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 202"
203	218272.871	153494.221	203.21	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 203"
204	218269.027	153019.508	190.23	SET MAG NAIL AND WASHER IN CURB STAMPED "ODOT 204"
205	218405.278	152493.406	186.78	SET 1-1/8" COPPER DISK IN CURB STAMPED "ODOT 205"
206	218325.119	151742.756	185.61	SET 1-1/8" COPPER DISK IN CONCRETE STAMPED "ODOT 206"

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON MONTH 00, 0000 REGISTRANT NAME 0000

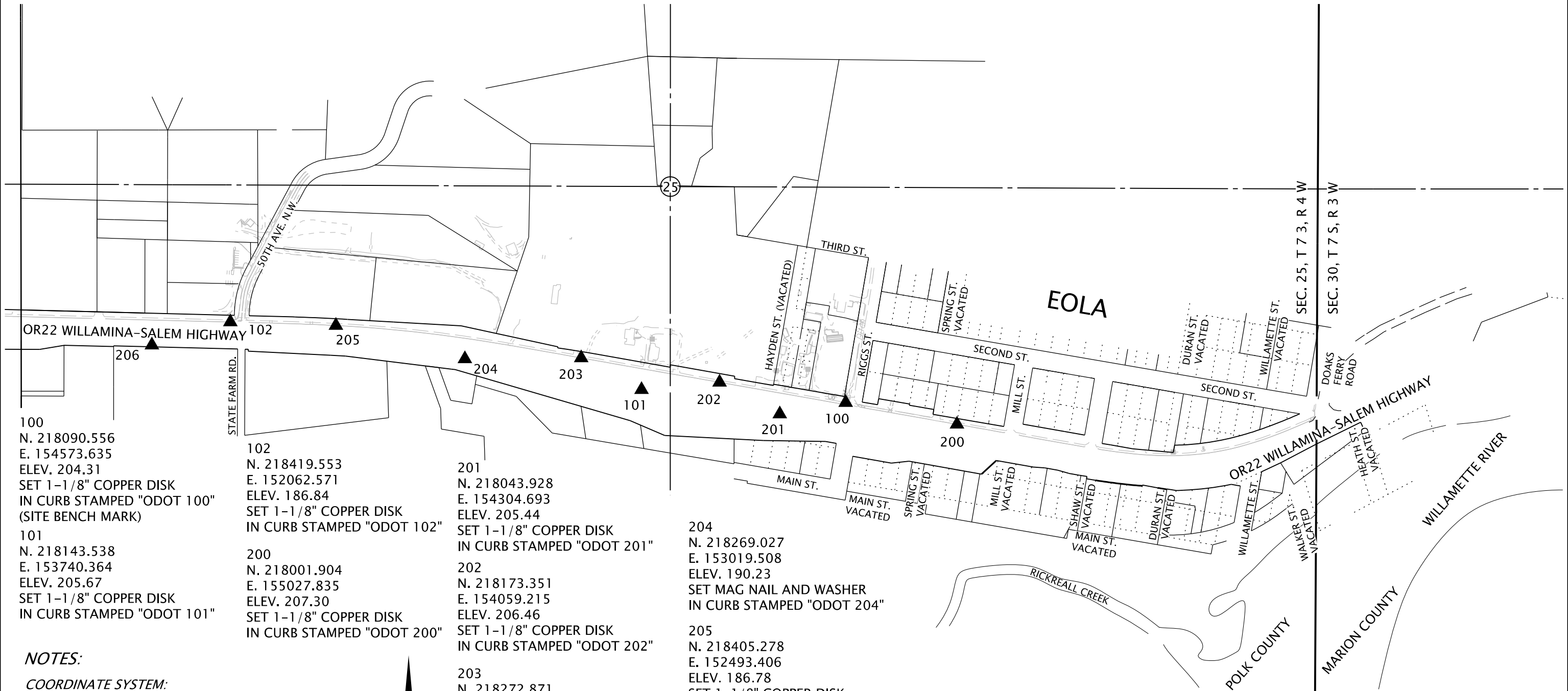
RENEWS: MM-DD-YYYY

OREGON DEPARTMENT OF TRANSPORTATION

OR 22 - SAFETY CORRIDOR
 WILLAMINA - SALEM HIGHWAY
 POLK COUNTY

Survey Manager: _____ Lead Surveyor: _____
 Project Surveyor: _____ Drafter: _____

SURVEY CONTROL DATA SHEET NO. A05



100
 N. 218090.556
 E. 154573.635
 ELEV. 204.31
 SET 1-1/8" COPPER DISK
 IN CURB STAMPED "ODOT 100"
 (SITE BENCH MARK)

102
 N. 218419.553
 E. 152062.571
 ELEV. 186.84
 SET 1-1/8" COPPER DISK
 IN CURB STAMPED "ODOT 102"

200
 N. 218001.904
 E. 155027.835
 ELEV. 207.30
 SET 1-1/8" COPPER DISK
 IN CURB STAMPED "ODOT 200"

201
 N. 218043.928
 E. 154304.693
 ELEV. 205.44
 SET 1-1/8" COPPER DISK
 IN CURB STAMPED "ODOT 201"

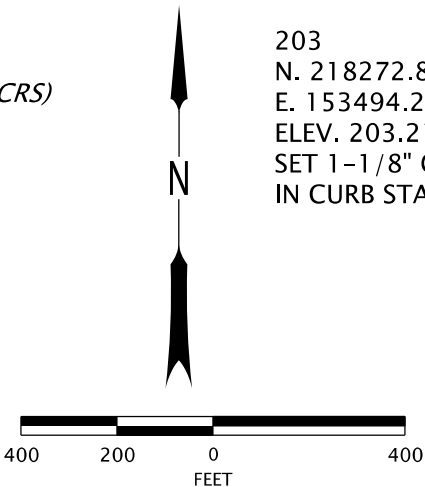
202
 N. 218173.351
 E. 154059.215
 ELEV. 206.46
 SET 1-1/8" COPPER DISK
 IN CURB STAMPED "ODOT 202"

204
 N. 218269.027
 E. 153019.508
 ELEV. 190.23
 SET MAG NAIL AND WASHER
 IN CURB STAMPED "ODOT 204"

205
 N. 218405.278
 E. 152493.406
 ELEV. 186.78
 SET 1-1/8" COPPER DISK
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206
 N. 218325.119
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LEGEND	
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REGISTERED PROFESSIONAL LAND SURVEYOR	OREGON DEPARTMENT OF TRANSPORTATION
OREGON MONTH 00, 0000 REGISTRANT NAME 0000	OR 22 - SAFETY CORRIDOR WILLAMINA - SALEM HIGHWAY POLK COUNTY
RENEWS: MM-DD-YYYY	Survey Manager: _____ Lead Surveyor: _____ Project Surveyor: _____ Drafter: _____
	SURVEY CONTROL DATA
	SHEET NO. A05