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**No: 08-02
Dental Office Patient Care Areas**

Code Section: 517.13**Code Edition:** 2008 Oregon Electrical Specialty Code**Date:** Re-issued April 1st, 2008**Subject:** Grounding Requirements for Branch Circuits in Patient Care Areas**Question:** **Are the receptacles serving dental chairs and their rooms required to have a ground path for fault current by installation of an additional equipment grounding conductor?****Answer:** **Yes, the wiring method provisions of 517.13(A) apply to all branch circuits serving patient care areas. Additionally, 517.13(B) requires the installation of an insulated copper equipment grounding conductor as the second component of the redundant grounding approach to protection for the patient.****Analysis:** Section 517.2 of the 2008 NEC does not specifically address a dental chair as one of the ordinary appliances in a patient care area. However, the definition of Health Care Facilities includes buildings or portions of buildings in which dental care is provided.

The language in the definition of Patient Care Vicinity implies a concern for conductive surfaces that can be contacted by the patient, or an attendant who can touch the patient.

All fixed equipment and receptacles within 1.8 m (6 ft) of dental chairs shall be installed in accordance with article 517.13 (A) and (B). The use of a non-conductive raceway and two equipment grounding conductors is not recognized as meeting these requirements.

To insure patient safety, the code requires all receptacles that serve utilization equipment likely to come in contact with a patient during the process of examination or treatment to comply with the provisions of article 517.13.

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**No: 08-01
RV Pedestal Grounding Electrodes**

Code Section: 551.75, 551.76**Code Edition:** 2008 Oregon Electrical Specialty Code**Date:** Re-issued April 1st, 2008**Subject:** Pedestals supplying power to recreational vehicles**Question:** **A feeder is supplying several pedestals in a recreational vehicle park. Is each pedestal required to have a grounding electrode system installed?****Answer:** **No, the service supplying the feeder requires a grounding electrode system to be installed but the pedestals do not require a separate grounding electrode system.****Analysis:** Section 551.76(A) lays out the grounding requirements for RV pedestals and requires that all exposed non-current carrying metal parts be grounded through the equipment-grounding conductor.

Where lightning protection is desired, supplementary grounding electrodes may be connected to the equipment grounding conductor but are not required by the Oregon Electrical Specialty Code.

For the purposes of this interpretation, the service, feeder and RV pedestals shall be considered a single structure as defined by Article 100 of the 2008 Edition of the National Electrical Code.

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