<table>
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<th><strong>ACTIVITY:</strong> Roadway &amp; Bridge Safety Features (R227)</th>
<th><strong>ACTION:</strong> Guardrails</th>
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**MAJOR & MINOR**

**DEFINITION:** The time and expenses incurred for installing and maintaining guardrails and end treatments along the roadway.

**PURPOSE:** The maintenance of guardrail, and other similar restraining devices.

**SCHEDULING:** Priorities as follows for repairs:

1. Devices located in medians or protecting fixed objects.
2. Located outside of, but adjacent to travel lanes.
3. Primary function for access control.
4. Primary function related to appearance only.

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**RECOMMENDED EQUIPMENT:**

- Truck
- Trailer
- Boom Truck
- Auger Truck
- Pulling Jack
- Cutting Torch
- Protective Truck
- Traffic Control Equipment; (See [EPG 616.23 Traffic Control for Field Operations](#))

**RECOMMENDED PROCEDURE:**

1. Contact Dig Rite and others to mark utilities.
2. Place traffic control devices as needed.
3. Remove damaged sections.
4. Pull stringline for alignment and drive steel rods at post locations to control post spacing. Vertical alignment may be improved by looping string around top of rods for adjustment.
5. Drive new posts and attach rail or cable.
6. Clean up work area.
7. Remove traffic control devices.

**RECOMMENDED MATERIAL:**

- Guardrail Posts
- Panels & Hardware
- Posts & Hardware
- Proper End Treatment

**SAFETY:** Use extreme care when dismantling damaged guardrail because sections may be under stress causing unexpected actions. Refer to the [Comprehensive Safety Program sharepoint portal](#). Wear all appropriate PPE. Refer to the [Risk Based Assessment](#) for additional information.

**OTHER CONSIDERATIONS:** Install proper crashworthy end treatments based on current standards.

**REFERENCES:** Missouri Standard Specifications for Highway Construction; Section 606