SEE CENTRALIZER DETAILS THIS SHEET.

**SHAFT SPIRAL OPTIONS**

<table>
<thead>
<tr>
<th>R (MIN.)</th>
<th>MIN. CONCRETE COVER (IN.)</th>
</tr>
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<tbody>
<tr>
<td>2½&quot;</td>
<td>6&quot;</td>
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**SHAFT HOOP OPTIONS**

<table>
<thead>
<tr>
<th><strong>WELD DIMENSIONS (IN.):</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>#7</td>
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<tr>
<td>L</td>
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</table>

**NOTES:**

1. CONSTRUCTION JOINT WITH REINFORCED SURFACE.
2. MINIMUM CONCRETE COVER PLUS 1/2".
3. SEE STD. SPEC. B-304-05 FOR PERMANENT CASING.
4. SEE STD. SPEC. B-106-03 FOR MINIMUM CONCRETE COVER.
5. SEE STD. SPEC. B-304-05 FOR SPACING REQUIREMENTS.
6. WELDING SHALL MEET THE REQUIREMENTS OF STD. SPEC. B-02-24.14 FOR WELD DIMENSIONS. SEE SHAFT / HOOP OPTIONS TABLE THIS SHEET.
7. CENTRALIZERS SHALL BE EPOXY COATED OR PAINTED WITH PAINT CONFORMING TO STANDARD SPECIFICATION B-08-1431.2 OR B-08-1431.2 AFTER FABRICATION.
8. EACH LEG SHALL BE TIED TO TWO (2) VERTICAL BAR AND TWO (2) SPIRAL WRAPS OR TWO (2) HOOPS.
9. CAGECASTER® REBAR CAGE SPACERS BY FOUNDATION TECHNOLOGIES MAY BE USED IN LIEU OF DETAIL SHOWN. SPACING REQUIREMENTS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. EACH LEG SHALL BE TIED TO A MINIMUM OF TWO (2) SPIRAL WRAPS OR HOOPS.
10. EXCAVATION IN ADVANCE OF THE CASING TIP SHALL NOT EXCEED "X" FEET.

**DESIGNER NOTES:**

- Butt welded hoops required if plastic hinging is expected.
- Specify optional spiral / mechanical coupler for #1 bar lengths 80'-0" or less. Bars are often available at 80'-0".
- Mechanical coupler required for bar sizes #14 and #18.
- Reinforcement cage outside diameter shall be per BD table 7.8.2-2.
- Deotch to provide "X" feet in Note 10. Remove Note 10 if not required.
- CONSTRUCTION JOINT WITH REINFORCED SURFACE.
- MINIMUM CONCRETE COVER PLUS 1/2".
- SEE STD. SPEC. B-304-05 FOR PERMANENT CASING.
- SEE STD. SPEC. B-106-03 FOR MINIMUM CONCRETE COVER.
- SEE STD. SPEC. B-304-05 FOR SPACING REQUIREMENTS.
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