TREE ROOT PROTECTION FOR AUGERING PRACTICES

AUGURING REQUIREMENTS

<table>
<thead>
<tr>
<th>Tree Diameter (inches)</th>
<th>Distance of auguring from tree trunk - each side (feet)</th>
<th>Depth of augering (feet)</th>
<th>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>3</td>
<td>2 1/2</td>
<td></td>
</tr>
<tr>
<td>5-9</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>10-14</td>
<td>10</td>
<td>3 1/2</td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>12</td>
<td>3 1/2</td>
<td></td>
</tr>
<tr>
<td>20 or MORE</td>
<td>15</td>
<td>4</td>
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</tbody>
</table>

* dimension is from existing ground to the top of augering sleeve.
Notes

1. In highly urbanized areas, where the gray infrastructure is in conflict with the green infrastructure, horizontal directional drilling or tunneling is required. Trenching shall not be done within the TPCRZ of the tree. Root pruning shall be employed as a last resort when viable alternatives to severing the roots cannot be found.

2. In areas of conflict, there shall be consultation with a Professional Forester, Arborist or Horticulturist concerning species tolerance to the practices, techniques and tools specifically used to protect the tree's roots. Only tools designed specifically for root pruning shall be used. Other tools, such as shovels, axes, backhoes and any other tool not specific to root pruning shall be prohibited.

3. Roots must not be removed from more than one side of the tree in any given year.

4. All excavation holes are to be covered in a wet tarp or wet burlap and kept moist for the duration of the construction project to protect the roots from desiccation (roots drying out). In some situations, it may be necessary to hand dig trenches, employ water excavation or an air spa to locate and preserve the roots.

5. Top soil shall be used to backfill the excavated area within one hour of cutting roots and the tree shall be watered within 24 hours of backfilling.

6. All roots impacted shall be properly pruned according to the International Society of Arboriculture (ISA) Pruning Standards and associated American National Standards Insitute (ANSI) Standards. Consultation with a Professional Forester, Certified Arborist or Horticulturist is required on all tree roots greater than 1/2" in diameter.

7. On site inspections conducted by a Professional Forester, Certified Arborist or Horticulturist are recommended to determine compliance with augering specifications.

REFERENCES

Project
Designed
Checked
Approved

STANDARD DWG. NO.
IUM-690-D

DATE 09-14-2017