Wisconsin Excavation Damages

• Started requesting detailed data in 2021
• Natural Gas excavation damages
• Local distribution companies
• Quarterly submissions
• Some categories from the CGA DIRT Report
What do we ask for?

• Date
• Location
• ROW type (City Street, Country Road, Interstate Highway, Railroad, etc.)
• Excavator (Contractor, County, Developer, Farmer, etc.)
• Equipment (Backhoe, Hand tools, Directional Drilling, Auger, etc.)
• Work performed (Gas, electric, communications, water, road, etc.)
• Locator type (Company or Contractor)
• Root cause (Didn’t verify marks, Didn’t call 811, Clearance, etc.)
• If service was interrupted
Damages and Tickets by Quarter

- **Damages**
  - Quarter 1: 95
  - Quarter 2: 377
  - Quarter 3: 455
  - Quarter 4: 285

- **Tickets**
  - Quarter 1: 0
  - Quarter 2: 50000
  - Quarter 3: 100000
  - Quarter 4: 150000

**Graph**

- The graph shows the damages and tickets by quarter.
- The damages increase from Quarter 1 to Quarter 2 and then decrease in Quarter 3 and Quarter 4.
- The tickets increase from Quarter 1 to Quarter 2, then decrease in Quarter 3 and remain constant in Quarter 4.
Damages by Day of the Week

<table>
<thead>
<tr>
<th>Day</th>
<th>Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>20</td>
</tr>
<tr>
<td>Monday</td>
<td>227</td>
</tr>
<tr>
<td>Tuesday</td>
<td>237</td>
</tr>
<tr>
<td>Wednesday</td>
<td>263</td>
</tr>
<tr>
<td>Thursday</td>
<td>241</td>
</tr>
<tr>
<td>Friday</td>
<td>179</td>
</tr>
<tr>
<td>Saturday</td>
<td>45</td>
</tr>
</tbody>
</table>
Service Interrupted?

- Yes: 93%
- No: 7%
Equipment causing damage

- Backhoe: 55.5%
- Hand Tools: 13.1%
- Directional Drilling: 12.4%
- Auger: 5.6%
- Bulldozer: 3.5%
- Trencher: 3.5%
- Other: 5.8%
- Grader: 1.7%
Damages by Excavator Type

- Contractor: 1041
- Occupant: 114
- Municipality: 19
- Utility: 19
- Unknown/Other: 11
- County: 7
- Developer: 1
Root Cause (General)

- Excavation issue: 57%
- Notification issue: 25%
- Locate issue: 17%
- Misc.: 1%

PSC of Wisconsin
Root Cause for Contractor and Occupant

Contractor:
- Excavation issue: 623
- Locate issue: 195
- Misc.: 216

Occupant:
- Excavation issue: 40
- Locate issue: 71
Industry of Damager

- Sewer/water/steam: 33%
- Road/sidewalk/driveway: 14%
- Landscaping: 13%
- Communication: 11%
- Building: 7%
- Other: 12%
- Natural Gas: 5%
- Electric: 5%
- Industry of Damager: 7%
### Root Cause by Work Type

<table>
<thead>
<tr>
<th>Work Type</th>
<th>Excavation issue</th>
<th>Locate issue</th>
<th>Misc.</th>
<th>Notification issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer/water</td>
<td>268</td>
<td>74</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Road/sidewalk/drive way</td>
<td>107</td>
<td>28</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td>59</td>
<td>16</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>59</td>
<td>25</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>91</td>
<td>39</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Building</td>
<td>38</td>
<td>5</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Natural Gas</td>
<td>40</td>
<td>103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric</td>
<td>29</td>
<td>10</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>
Excavation Issue

- No pothole: 316
- Clearance: 192
- No protection: 71
- Other: 69
- Marks not maintained: 32
- Backfilling: 9
Inaccurate Not marked Not marked - bad maps Inaccurate - locator error Not marked - unlocatable Inaccurate - bad maps Inaccurate - tracer wire issue

Locating Issue

- Inaccurate: 92
- Not marked: 66
- Not marked - bad maps: 27
- Inaccurate - locator error: 10
- Not marked - unlocatable: 4
- Inaccurate - bad maps: 4
- Inaccurate - tracer wire issue: 2
Data Integrity

• Pick the specific root cause
• Dig in to damages so there are no blanks
• Better data will be more useful to everyone
• Additional years will be more useful
Thoughts?

• Does this information line up with your expectations?
• Is there anything surprising?
• What questions do you have about damages that these data could answer?