### FLEXIBLE SINGLE PIPE

- **Lm**
- **Ba**
- **k**
- **Bc** in length

**RIGID SINGLE PIPE**

- **Lm**
- **Ba**
- **k**
- **Bc** in length

### FLEXIBLE DOUBLE PIPE

- **Lm**
- **Ba**
- **k**
- **Bc** in length

**RIGID DOUBLE PIPE**

- **Lm**
- **Ba**
- **k**
- **Bc** in length

### HEADWALL FOR METAL PIPE ARCH (MPA)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lm</td>
<td>Ba</td>
<td>k</td>
<td>Lc</td>
<td>To</td>
</tr>
<tr>
<td>36-48</td>
<td>49-64</td>
<td>71</td>
<td>84</td>
<td>151</td>
</tr>
<tr>
<td>65-74</td>
<td>76-95</td>
<td>184</td>
<td>197</td>
<td>302</td>
</tr>
<tr>
<td>68-80</td>
<td>80-94</td>
<td>180</td>
<td>194</td>
<td>299</td>
</tr>
</tbody>
</table>

**GENERAL NOTES**

1. **Concrete shall be Class B.**
2. **Exposed concrete corners shall be chamfered 1/4 in.**
3. **If pressure headwall is used, a permanent epoxy bond, approved by the Engineer, shall be used between pipe and headwall.**
4. **Headwall shall be perpendicular to the most curved centerline unless otherwise specified. Tabulated dimensions and quantities shall be adjusted for skewed installations.**
5. **Headwall anchor bolts shall be driven in a manner that will not affect the concrete and shall be included in the cost of pipe.**
6. **Headwall anchor bolts shall be used only with flexible pipe, both internal and external.**

---

### HEADWALLS FOR ROUGH PIPE

**RIGID PIPE**

- **Lm**
- **Ba**
- **k**
- **Bc** in length

**FLEXIBLE PIPE**

- **Lm**
- **Ba**
- **k**
- **Bc** in length

**RIGID PIPE**

- **Lm**
- **Ba**
- **k**
- **Bc** in length

**TYPICAL GALVANIZED ANCHOR BOLTS**

- **Ta, Lm, Lc, Trm**

---

**TYPE "S" SADDLE HEADWALLS FOR PIPE**

**STANDARD PLAN NO.**

M-601-11

**Issued by:** Project Development Branch on July 30, 2006

---

**Computer File Information**

- **Creation Date:** 07/24/06
- **Last Modification Date:** 07/24/06
- **Full Path:** www.dot.state.co.us/DesignSupport/