### Example of Completed BCS Standard

This sheet is a supplement to the box culvert standard. It is to be filled out in triplicate and returned to the Bridge Standards Division of TxDOT by the culvert specifier and provides dimensions for the construction of the box culvert wingwalls and safety end treatments.

#### 1. Round the wall heights shown to the nearest foot for bidding purposes.

#### 2. Concrete volume shown is for box culvert curb only. For curbs using the Box Culvert Rail Mounting Details (RMD) standard sheet, quantities shown must be increased by a factor of 2.25. In Class 5 concrete is required for the top slab of the curb, and provide Class 5 concrete for the curb. Curb concrete is considered part of the Box Culvert for payment.

#### 3. Concrete volume shown is total of aprons, foundations, curb-to-end of wingwall, anchor-to-end of wingwall, riprap aprons, culverts, and curb quantities are not included.

#### 4. Regardless of the type of curb shown on this sheet, the Contractor has the option of furnishing cap-in-place or precast curvets unless otherwise shown somewhere else in the plans. If the Contractor elects to provide curvets of a different type than those shown on this sheet, it is the Contractor's responsibility to show the necessary adjustments to the dimensions and quantities shown.

---

#### NOTE:

- **Slew = 0° or SKD-0, FM-K, SETB-CO, SETB-SK-0, and SETB-FW-0 standard sheets:**
  - Side slope of paver for flank or straight wingwalls.
  - Channel edge for parallel wingwalls.
  - Slope must be 5° or flatter for safety and treatment.

- **T = Box culvert top slab thickness.** Dimension can be found on the applicable box culvert standard sheet.

- **U = Box culvert wall thickness.** Dimension can be found on the applicable box culvert standard sheet.

- **W = Curb height.** Dimension can be found on the applicable box culvert standard sheet.

- See applicable wing or end treatment standard sheets for calculations of $Hw$, $A$, $B$, $C$, $Hc$, $Lw$, $Ltw$, and $Total Wingwall Area$.

#### SPECIAL NOTE:

- This is an Excel 2010 spreadsheet to assist in completing this table. An Excel 2010 spreadsheet to assist in completing this table can be downloaded from the Bridge Standards Division web page on the TxDOT web site. The completed form can be downloaded from the Bridge Standards (English) web page.

---

#### EXAMPLE OF COMPLETED BCS STANDARD

<table>
<thead>
<tr>
<th>Description of Box Culvert</th>
<th>Max Fill Height</th>
<th>Applicable Wingwall</th>
<th>Applicable Culvert Wall</th>
<th>Sheet Angle</th>
<th>Side Slope of Channel</th>
<th>Slope Ratio</th>
<th>Curb on Curb Wall</th>
<th>Curb on Culvert Wall</th>
<th>Lw</th>
<th>Ltw</th>
<th>Lw</th>
<th>Class</th>
<th>Class</th>
<th>Total Wingwall Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sta 422.422, Bayou Vista (Rt)</td>
<td>2'</td>
<td>MC-7-10</td>
<td>FM-S</td>
<td>15°</td>
<td>2'</td>
<td>7'</td>
<td>7</td>
<td>0.917</td>
<td>6.500</td>
<td>N/A</td>
<td>11.375</td>
<td>16.306</td>
<td>N/A</td>
<td>0.0</td>
</tr>
<tr>
<td>Sta 422.422, Bayou Vista (Lt)</td>
<td>2'</td>
<td>MC-7-10</td>
<td>FM-S</td>
<td>15°</td>
<td>2'</td>
<td>7'</td>
<td>7</td>
<td>0.917</td>
<td>6.500</td>
<td>N/A</td>
<td>11.375</td>
<td>16.306</td>
<td>N/A</td>
<td>0.0</td>
</tr>
</tbody>
</table>

---

#### DISCLOSURE:

- This is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.