GENERAL NOTES:

1. Use Class I concrete.

2. Reinforcing steel is either Grade 40 or 60.

3. Endwalls may be cast in place or precast concrete. (Additional reinforcement necessary for handling precast units will be determined by the Contractor or the supplier).

4. Chamfer all exposed edges and corners to 1/4".

5. Endwall dimensions, locations and positions are for round and elliptical concrete pipe and for round and pipe-arch corrugated metal pipe. Round concrete pipe shown.

6. On outfall ditches with side slopes flatter than 1:1.5 provide 20' transitions from the endwall to the flatter side slopes, right of way permitting.

7. Construct front slope and ditch transitions in accordance with Index 430-001.

8. Quantities shown are for estimating purposes only.

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TABLE OF CONTENTS:

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Notes and Contents</td>
</tr>
<tr>
<td>2</td>
<td>Concrete Endwall Details</td>
</tr>
<tr>
<td>3</td>
<td>Concrete and Metal Pipe Tables</td>
</tr>
<tr>
<td>4</td>
<td>Spacing For Multiple Pipes</td>
</tr>
</tbody>
</table>

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STRAIGHT CONCRETE ENDWALL

Pipe
LEGEND:

α  Pipe Skew Angle
S  Center to Center between pipes
X  Center to Center along front of Headwall

SPACING FOR MULTIPLE PIPES

NORMAL PIPE

SKewed PIPE

(Multiple Pipe Shown, Single Pipe Similar)