**PRECAST CONCRETE SHEET PILE WALL**

**SECTION THRU BULKHEAD**

(Showing Plastic Filter Fabric)

**DETAIL “A”**

(Cap and Anchoring System Not Shown)

(Section Taken Above Dimension “X”)

NOTE: Detail “A” shows a Part-Plan View of an assumed bulkhead.

See Bulkhead plans for actual Plan View.

**NOTE:** Plastic Filter Fabric shall extend to the bottom of the “X” dimension.

**PILE FIT-UP:**

The 2'-6" Sheet Pile dimension is nominal. This dimension may be shortened by the Manufacturer up to 1/2" to allow for Sheet Pile fit-up in its final position. Minimum Sheet Pile width is 2'-5 1/2". No changes shall be made to the tongues or grooves.

**PILE PICK-UP AND HANDLING:**

Type “A”

Pick-up of pile may be either a single point pick-up or a two point pick-up as shown below.

Types “B” & “C”

Two point pick-up for lifting out of forms & two point support for storage & transportation.

Single point pick-up for installation only.

**ENVIRONMENT:**

The pile designs are applicable to all Environments.

**PLASTIC FILTER FABRIC:**

The plastic filter fabric shall extend to the bottom of the “X” dimension.

**PILE STORAGE AND TRANSPORTATION SUPPORT DETAILS**

NOTES AND DETAILS

**REVISIONS**

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<th>Sheet No.</th>
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NOTES:
1. Intermediate Prestress Strands not shown in Elevations and Sections.
2. All bar dimensions are out-to-out.
3. Bars A are #5 and Bars S are #4.
4. At the Contractor's option Bars S may be fabricated as a two piece bar as shown in the Bar Bending Diagram.
5. The Contractor may use Deformed Welded Wire Reinforcement conforming to specification ASTM A497 in lieu of Bars A and Bars S if the wire size and spacing provide the same area of reinforcing steel per foot as the bars shown.
6. For Dimensions L and X see Sheet Pile Data Table in Structures Plans.

**TYPICAL PILE**

**STARTER PILE**

<table>
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<tr>
<th>Wall Thickness</th>
<th>STRAND DIA. (in.)</th>
<th>MAXIMUM D (in.)</th>
<th>10</th>
<th>12</th>
<th>TOTAL # OF STRANDS</th>
<th>MODULUS (in³)</th>
<th>D* STRESS (PSI)</th>
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<td>T=10 in.</td>
<td>0.5</td>
<td>3/4</td>
<td>6</td>
<td>3/4</td>
<td>14</td>
<td>500</td>
<td>1150</td>
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<tr>
<td></td>
<td>0.6</td>
<td>3/4</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>500</td>
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<tr>
<td>T=12 in.</td>
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<td>7</td>
<td>3/4</td>
<td>16</td>
<td>720</td>
<td>1100</td>
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<tr>
<td></td>
<td>0.6</td>
<td>3/4</td>
<td>5</td>
<td>2</td>
<td>12</td>
<td>720</td>
<td>1160</td>
</tr>
</tbody>
</table>

* Unit Prestress after losses.
PRECAST CONCRETE SHEET PILE WALL

1. This drawing includes details for precast concrete corner piles for 10" and 12" thick sheet pile systems. The details apply equally to both thicknesses.

2. The bar configurations shown in Sections A-A and B-B shall be used for 30° angles between 15° and 75°. For 0° angles not shown, the reinforcing bar dimensions may be interpolated or extrapolated from the stirrup dimensions shown.

3. All bar dimensions are out-to-out.

4. Bars A are #8 and Bars S are #4.

5. Values for Stirrup Dimensions are shown for 0° equal to 30°, 45° and 60° only.

6. At the Contractor's option Bars S may be fabricated as a 2 piece bar with a minimum lap length of 1'-6", as shown in Bar Bending Diagrams.

7. If Type "B" pile is used as a Starter Pile show tongue on both sides of pile with a minimum lap length of 1'-6", as shown in Bar Bending Diagrams.

8. If Type "B" pile is used as a Starter Pile show tongue on both sides of pile with a minimum lap length of 1'-6", as shown in Bar Bending Diagrams.

9. For Dimensions L, X and Ø Angle see Sheet Pile Data Table in Structures Plans.
1. All bar dimensions are out-to-out.
2. Bars A are #8 and Bars S are #4.
3. This drawing includes information for precast Corner Piles for 10" and 12" thick Sheet Pile systems. The details apply to both thicknesses but the bar configurations change slightly according to the thickness values used.
4. If Type "C" pile is used as a Starter Pile show tongue on both sides of pile from Dim. "Y" down. Show dimensions for Bars S2, S3, S4 & S5 in shop drawings.
5. If tongue must be on opposite side (Groove Side) from that shown, all dimensions and reinforcement shall follow the corresponding Tongue or Groove side.
6. For Dimensions L and X see Sheet Pile Data Table in Structures Plans.