### Design Conditions

Design H may be expected by 5° before going to the next size. Special footing designs are required where foundation material is inadequate to supporting bearing stress listed in the table.

### Design Notes

- **Designs**:
  - Wood bridge design specifications, 4th edition with California amendments.
  - See architectural treatment of thickness up to 8" of concrete (75 psi) considered.

- **Soils**:
  - **B** = 3.6
  - **D** = 5.0

- **Reinforced Concrete**:
  - **F<sub>c</sub>** = 3,600 psi
  - **F<sub>q</sub>** = 4,000 psi

### Load Combinations and Limit States

- **Zone 1** = Top half of stem height
- **Zone 2** = Bottom half of stem height

### Symbols

- **Ser** = Service limit state
- **Str** = Strain limit state
- **d** = Design
- **g** = Gross
- **h** = Height
- **L** = Load
- **N** = Number
- **Q** = Gross uniform bearing stress (ksf)

### Design Equations

- **Q** = **1.0DC + 1.0EV + 1.0EH + 1.0EQD + 1.0EQE**

### Concrete

- **Class**
  - **C15**
  - **C20**
  - **C30**
  - **C40**

### Table of Reinforcing Steel, Dimensions and Data

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### Typical Section

1. For details not shown and drainage notes see **Page 3**.
2. For wall stem joint details see **Page 3**.
3. **A** (long) and **B** (short) bars:
   - **H**: No. are allowed within 1" of footing.
   - **H**: No. are allowed within 1/4 of footing.
4. **B** bars for **H**: 3.66".
5. **B** bars around & space with alternating transverse reinforcement at 2 x 4".