

## Attachment 8B-1 Concrete Materials

**Checklist of required information that must be included in Mass Concrete Plans for substructures in which instrumentation and temperature monitoring is being omitted:**

1. General information including:

|                             |                    |
|-----------------------------|--------------------|
| Project Number _____        | Contract No. _____ |
| Project Location _____      |                    |
| Submitting Contractor _____ | Phone No. _____    |
| Specialty Engineer _____    | Phone No. _____    |

2. The least cross sectioned dimension of the mass concrete substructure element.  
- Provide Sketches/Plan drawings of the mass concrete elements (Footers, Columns, and Pier Caps)
3. The environmental classification of the concrete.
4. Assumptions made in the plan, such as, ambient temperature, placing temperatures, etc.
5. The approved concrete mix designs to be used in constructing mass concrete elements.
6. The total cementitious content of the concrete mix design that will be used in constructing the mass concrete elements.
7. The insulation R value to be used to protect the mass concrete substructure elements from excessive heat loss and thermal shock. Minimum R value of 2.5 is required.
8. A statement defining what actions will be taken by the contractor to control temperature differentials control actions to be taken by the contractor during and after mass concrete placement. For example; insulation, cooling pipes, chilled aggregates, and adding ice in the concrete mix. If ice is used, state that batch water will be reduced accordingly.
9. A statement indicating, the contractor will ensure that water does not come in contact with the outside edge of the concrete, the forms, or the insulation. The statement should also state that if water comes in contact with any of the items listed above, the contractor must perform analyses deemed necessary by the Engineer to determine the element's structural integrity and durability.
10. The Mass Concrete Plan must be signed and sealed by the Specialty Engineer.