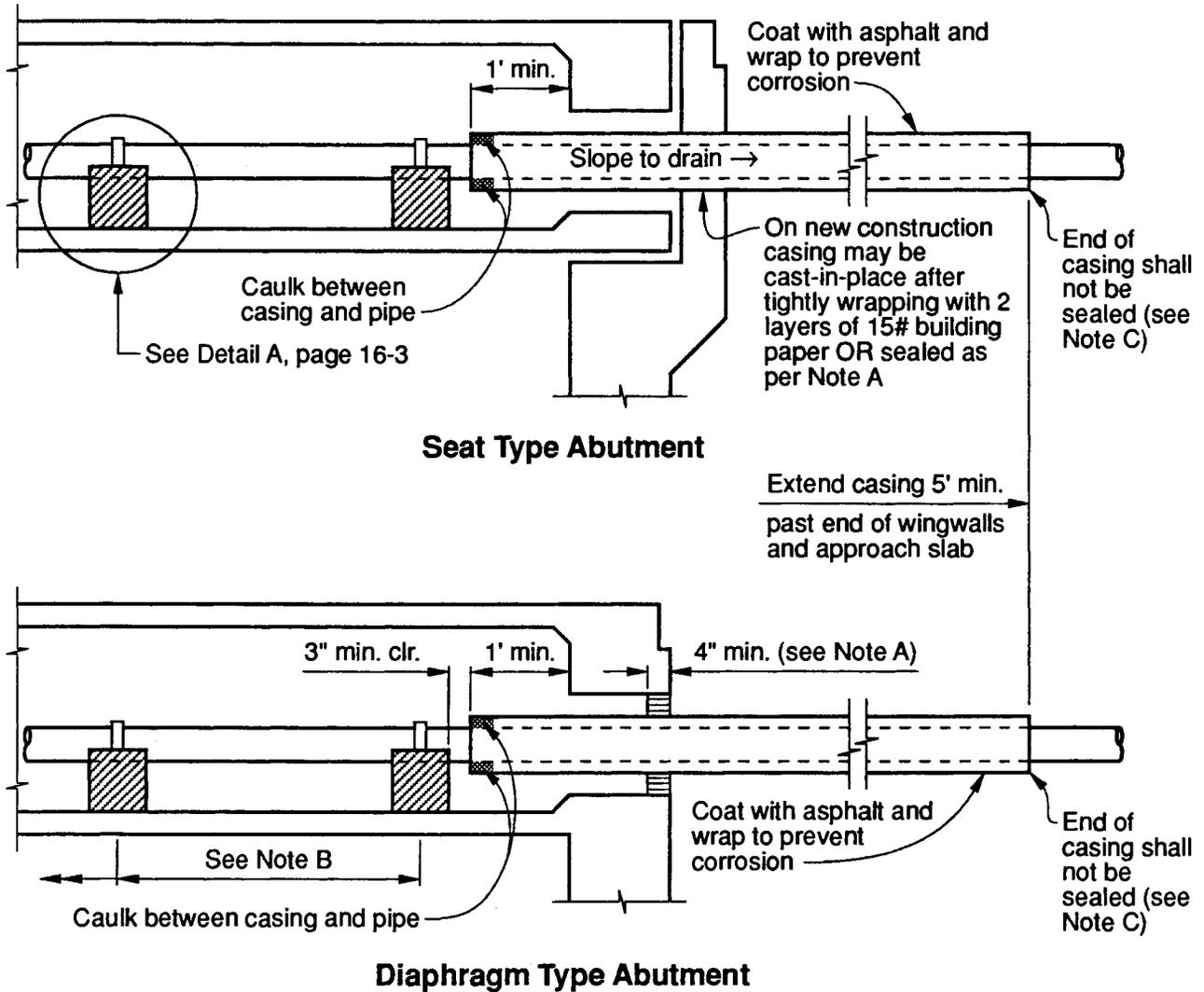


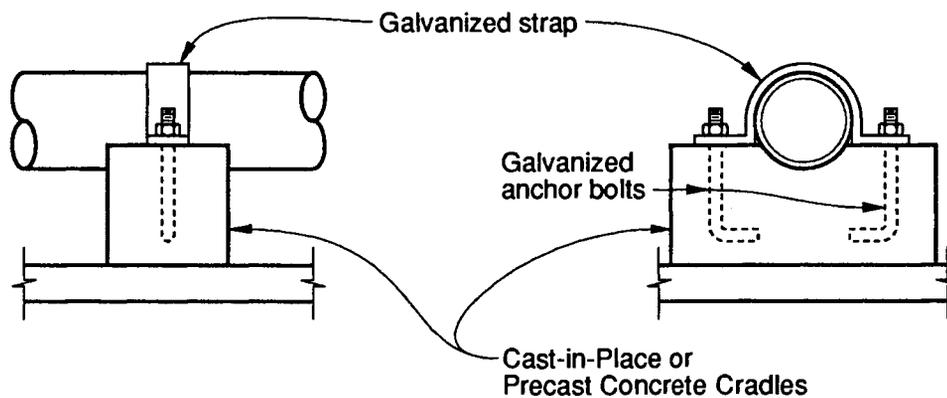
**Installation of Water Lines by Utility Company  
Box Girder Bridges with Manholes  
Manholes To Be Provided In Each Bay**



**Notes**

- A. Fill space between abutment and casing with mortar after tightly wrapping casing with 2 layers of 15# building paper. (See Std. Plan B7-10)
- B. Cradle spacing shall be determined by the Utility Company and shall be subject to State approval.
- C. Screening, mesh, or porous fabric may be used to prevent backfill material from entering the casing.
- D. Provide soffit opening of sufficient size to drain cell in event of pipe rupture.

**This is only an example. Not to be used as a Standard.**



### Detail A

- 1 – Cast-in-Place cradles shall be secured to the bridge soffit slab with dowels. The contact surface of the soffit slab shall be thoroughly cleaned prior to the placement of concrete.
- 2 – Precast cradles shall be securely fastened to the bridge soffit slab with a two component epoxy adhesive. The contact surface of the soffit slab shall be smoothed and cleaned prior to application of the adhesive.