

902.02 POLICY

Support bracket details and attachments for all utilities will require Bridge Group approval.

All approved utilities shall have individual sleeved casings, conduits or ducts as appropriate.

All utilities carrying liquids shall be placed inside casings through the entire length of the structure. The casing shall be designed to carry full service pressure so as to provide a satisfactory containment in case the utility is damaged or leaks.

Water lines, telephone conduits, power lines, cable TV lines, supports or other related items will not be permitted to be suspended below or attached to the exterior of any new or existing structure.

Product lines for transmitting volatile fluids will not be permitted to be attached to or suspended from or placed within any new or existing structure.

902.03 UTILITY AGENCY RESPONSIBILITY

The utility agency is responsible for obtaining necessary information regarding the proposed construction schedule for the project. The agency shall submit a request including justification for attaching to the structure and preliminary relocation plans including line mass and support spacing as early as possible but no later than the completion of preliminary structural plans.

The utility agency shall be responsible for the design of all conduits, pipes, sleeves, casings, expansion devices, supports and other related items including the following information:

1. Number and size of conduits for power, telephone and cable TV lines.
2. Size and schedule of carrier pipe for water lines.

3. Size and schedule of sleeved casings.
4. Spacing and details of support brackets.
5. Expansion device details.
6. Total combined weight of carrier pipe and transmitted fluids, conduits, casings, support brackets, expansion joints and other related items.
7. Design calculations.

902.04 BRIDGE GROUP RESPONSIBILITY

The Bridge Group shall be responsible for and have final approval authority for the following aspects of the design:

1. Determination of how many lines, if any, the structure can accommodate.
2. Determination of where such lines should be located within a structure.
3. Determination of the size of the access openings and design of the required reinforcing.
4. Determination of construction problems related to required sequencing of project.
5. Tracking man-hours associated with utility relocations for cost recovery.

Usually utilities will be accommodated by providing individual access openings for casings and sleeves to pass through. Access openings should be 50 millimeters larger than the diameter of the casings or sleeves and spaced as required by structural considerations.

For box girder bridges, access openings should be located as low as possible but no lower than 250 millimeters above the top of the bottom slab to allow for support brackets to be supported from the bottom slab. Where possible all utilities shall be supported from the bottom slab for box girder bridges.

For girder bridges, the utilities shall not be placed in the exterior girder bay and shall be supported from the deck slab.