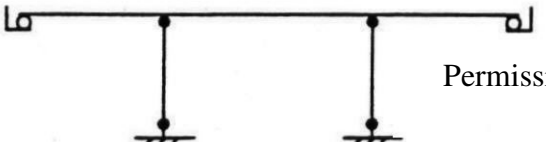
Longitudinal Response

1

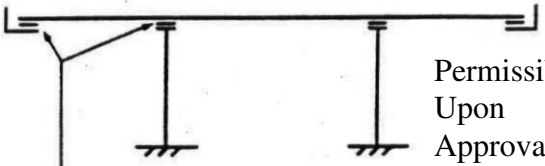


Permissible

- Plastic hinges in inspectable locations.
- Abutment resistance not required as part of ERS
- Knock-off backwalls permissible

Longitudinal Response

2

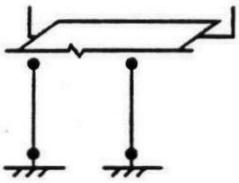


Permissible Upon Approval

- Isolation bearings accommodate full displacement
- Abutment not required as part of ERS

Transverse Response

3

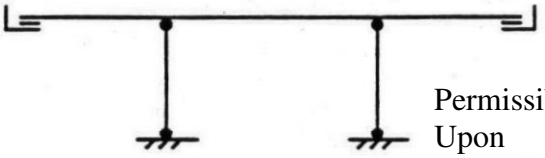


Permissible

- Plastic hinges in inspectable locations.
- Abutment not required in ERS, breakaway shear keys permissible

Transverse or Longitudinal Response

4

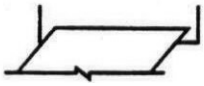


Permissible Upon Approval

- Plastic hinges in inspectable locations
- Isolation bearings with or without energy dissipaters to limit overall displacements

Transverse or Longitudinal Response

5

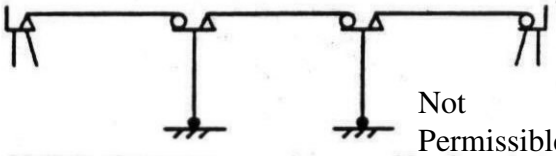


Permissible Upon Approval

- Abutment required to resist the design earthquake elastically
- Longitudinal passive soil pressure shall be less than 0.70 of the value obtained using the procedure given in Article 5.2.3

Longitudinal Response

6



Not Permissible

- Multiple simply-supported spans with adequate support lengths
- Plastic hinges in inspectable locations.

Figure 3.3-1a Permissible Earthquake Resisting Systems (ERS).