

US Bridge - IFC Mapping Diagrams

Hierarchies, spatial relationships, and IFC mappings for US Bridges per TPF-5(372) and 5(523)

Proposed Hierarchy Diagrams

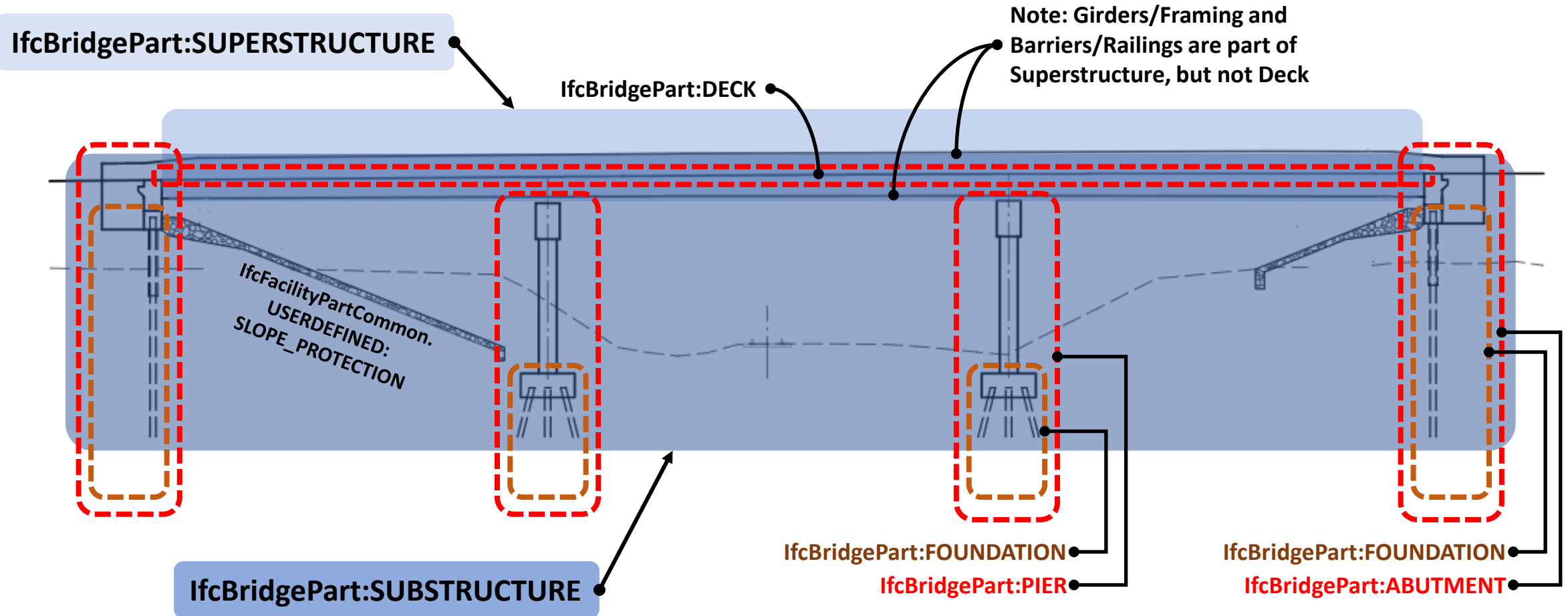
Notes:

- Purpose -> Provide spatial and logical organizations that are adaptable to most/all bridge types within the Alignment-based Reference View (AbRV). This enables consistency across software implementations and managing user (DOT owners and project delivery stakeholders) expectations
- Our feedback, coordinated with the bSI TI Bridge project and the IFC4.x Implementers Forum (IF) will help establish consistency, just like the previous Implementers Agreements (IA) from earlier schema versions
- The concept of “FOUNDATION” is now identified as a functional/spatial concept (IfcBridgePart:FOUNDATION), within the respective PIER or ABUTMENT concepts/instances and their overall description/composition.
- Detailed complexity of components/sub-components will depend on construction type (e.g. precast concrete vs. steel built-up section girders) and desired Level of Information Need (LOIN) by the project owner.

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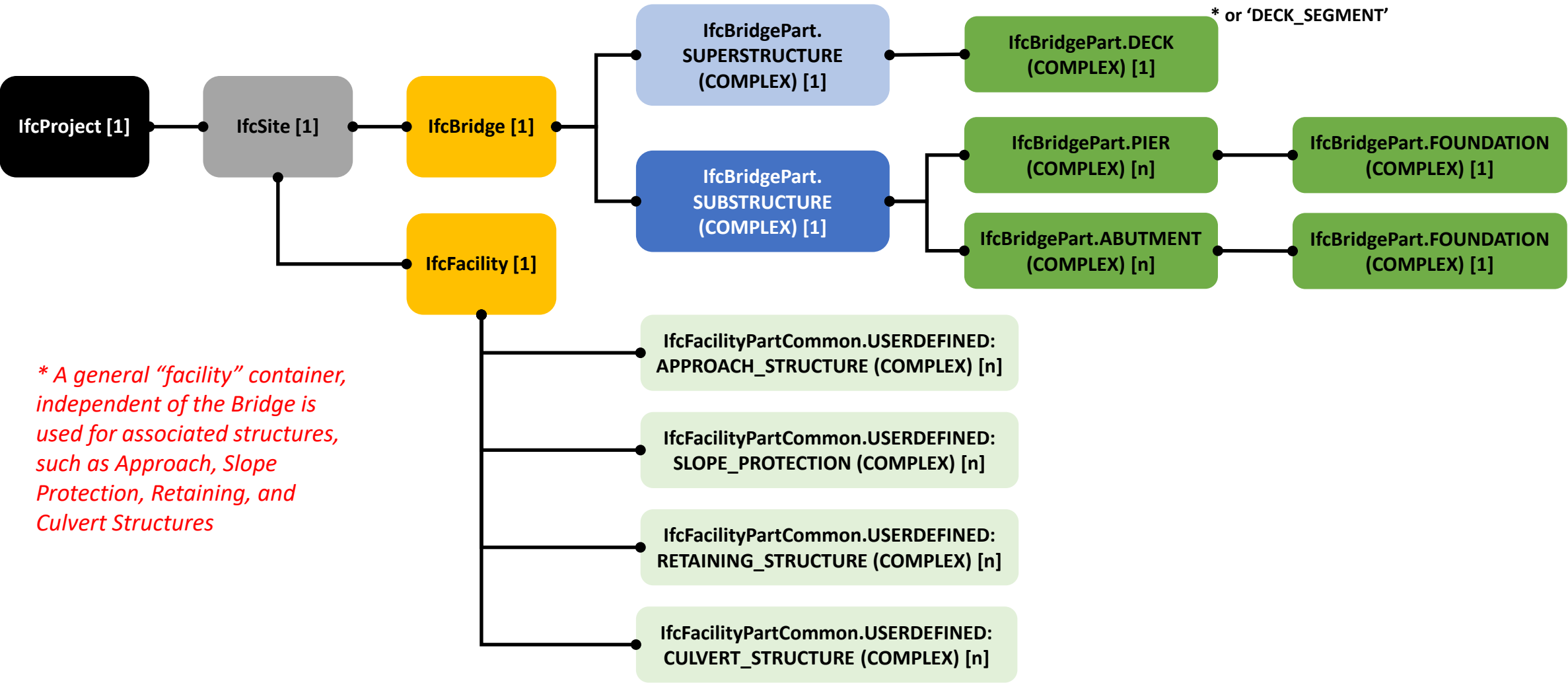
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General Spatial Hierarchy Diagram



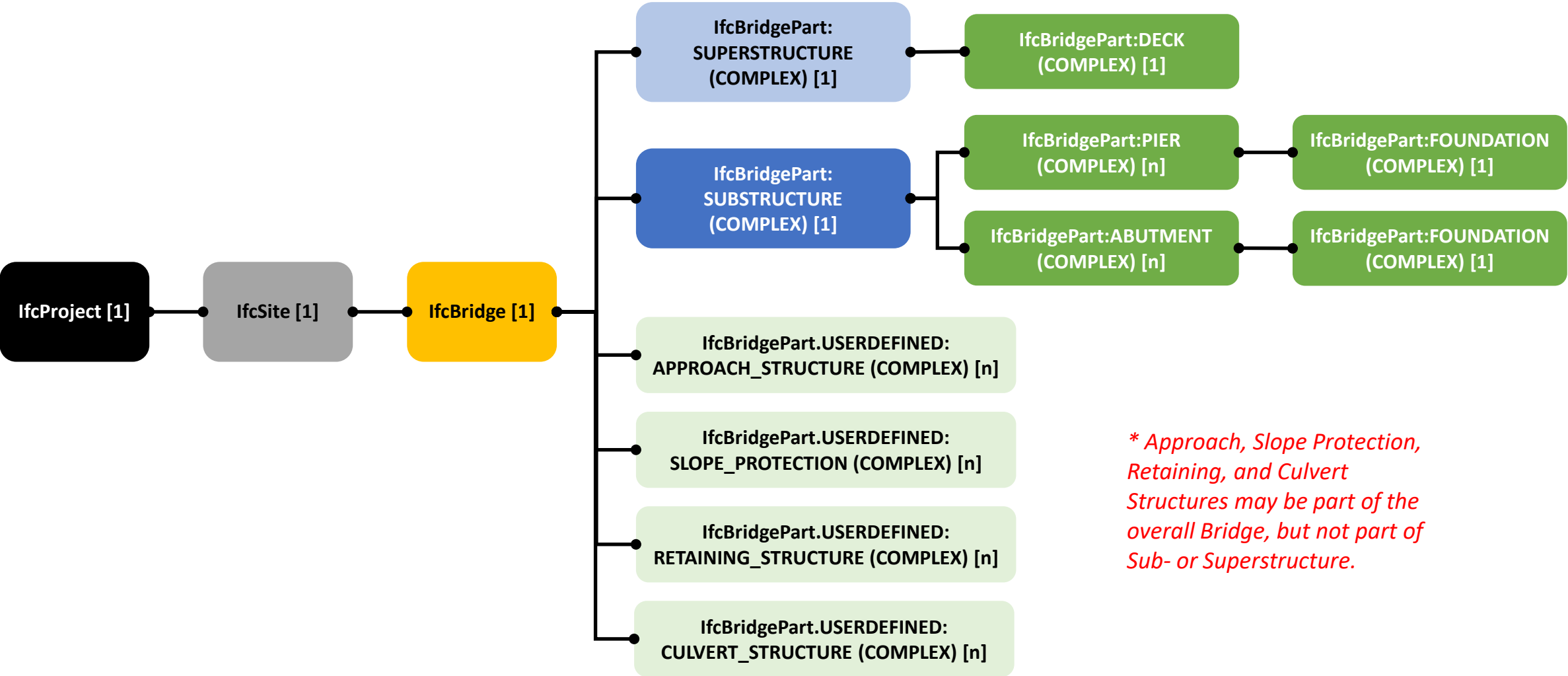
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Primary Spatial Hierarchy



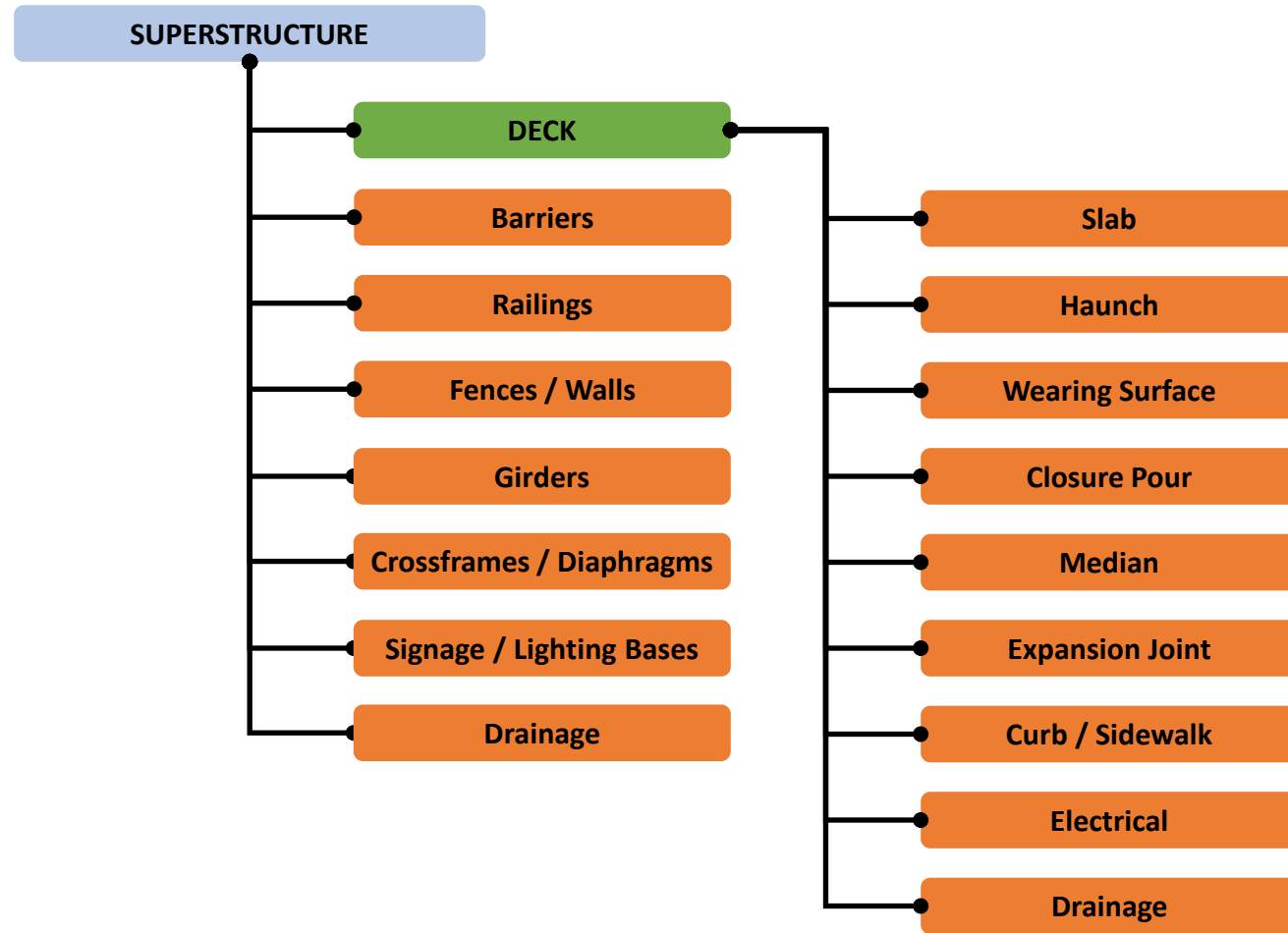
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Optional Spatial Hierarchy



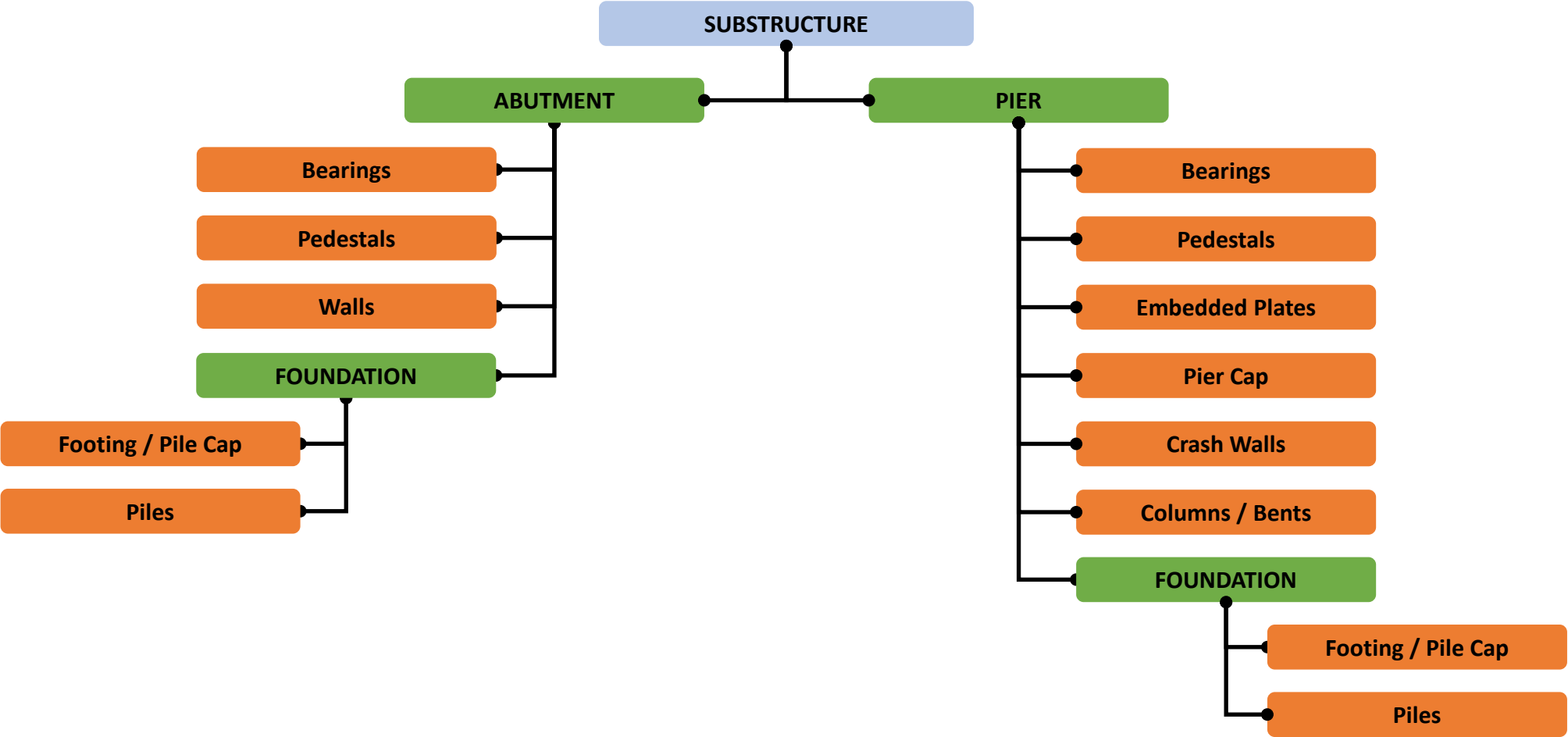
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Logical Hierarchies/Relationships with the Primary Spatial Organization



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