

Roseburg LVL Bearing on Steel Columns

Roseburg Forest Products (RFP) RigidLam® LVL is often designed and installed for beam applications where steel columns are used as end or intermediate supports for the LVL beam. This condition is represented by a detail included in the RFP Engineered Wood Products Design Guide. As stated in this detail, the project designer is responsible for verifying the required bearing length and the ability of the supporting column member to provide adequate strength for the RigidLam® LVL beam.

The detail in the Design Guide shows a steel column cap with side plates. Some column caps are supplied as a flat steel bearing plate, generally with a hole located at each corner to allow for the installation of lag screws. As a precaution against material splitting, appropriate clearance and lead holes, as described in the National Design Specification (NDS), must be drilled to facilitate the proper installation of the lag screws.

RFP recommends the use of column caps with side plates, if for no other reason, to provide some lateral restraint during the installation procedure. The project designer must determine whether or not side plates are required for applied loads and/or stability. As indicated previously, it is the responsibility of the project designer to verify that the column (whether steel or wood) and beam support mechanism are of adequate size and capacity to support the design loads. This includes all vertical and lateral loads. It is also the designer's responsibility to show any additional details required to provide stability for the associated structural elements.