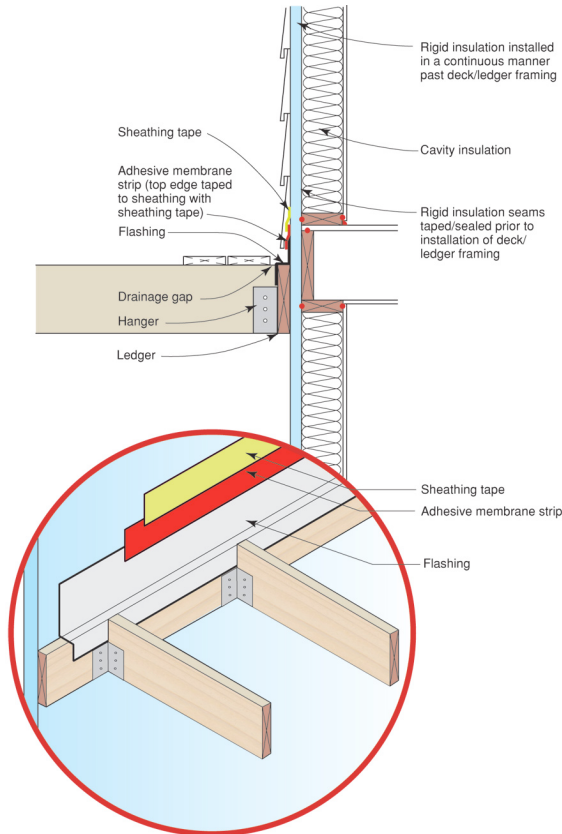


BSC Information

Integrating Deck Ledger Board with Drainage Plane *for All Climates*

Sheet 304

Integrating Deck Ledger Board with Drainage Plane



Maintaining drainage plane continuity at deck ledger locations provides a particular challenge. It is common practice to install a complete WRB on a wall assembly before attaching a deck ledger. Then, when the deck ledger is attached, structural connections at this location breach this water control layer or WRB. Pressed against the water control layer, the ledger acts as horizontal dam interrupting drainage and potentially directing water to fastener penetrations and into the wall. Even where the wall system protection remains in tact, the ledger board itself would be vulnerable to moisture degradation if not protected. Other building elements, such as mounting blocks used for the attachment of lighting fixtures, may present similar conditions as those described above. The techniques presented in this Information Sheet may be applied to deck ledgers as well as related elements.

Careful detailing and flashing of this connection is necessary for both the integrity of the building's drainage system and for the durability of the deck structure.

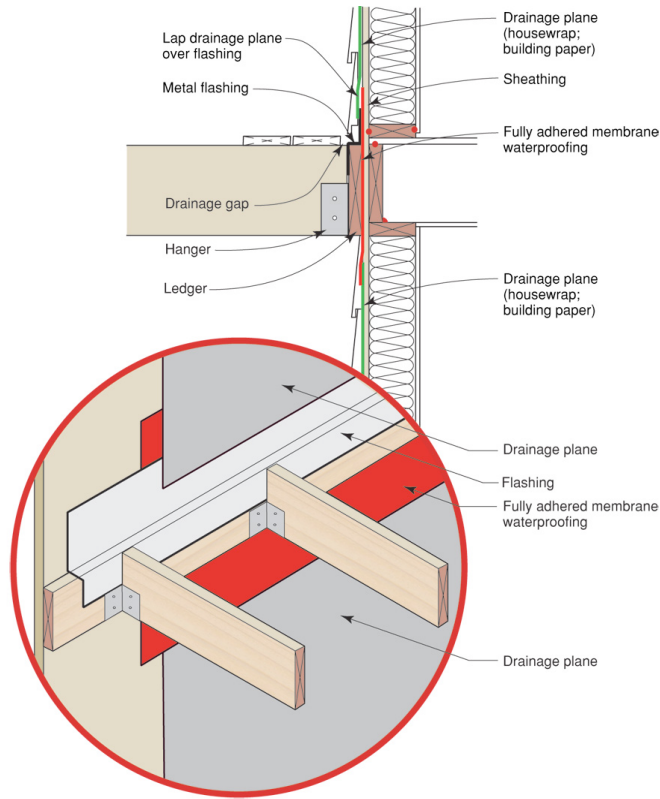
The diagram to the right shows flashing over a deck ledger board. The top of the flashing is integrated into the wall drainage plane (In this case, insulating sheathing installed in a continuous manner with seams taped also functions as the drainage plane). The ends of the joist should be treated with a sealant to reduce the absorption of water at the end of the joist.

Where the drainage plane is applied over the sheathing material as a separate component – as would be the case for housewrap or building paper applied over structural sheathing – a water proof membrane should be installed between the ledger board and the sheathing. The diagram on the following page illustrates the application of ledger board flashing in this situation.

Flashing Over Deck Ledger

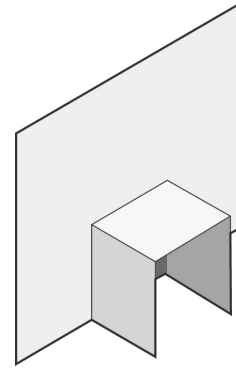
- Ledger flashing directs water out over deck ledger
- Membrane flashing integrates metal flashing into the wall drainage plane
- Sheathing tape seals membrane flashing to drainage plane/sheathing
- Deck joist ends treated to reduce absorption of water

WRB Behind Deck Ledger



- Drainage plane above ledger to lap over flashing which is placed over waterproof membrane
- Drainage plane to be tucked under waterproof membrane below ledger
- Deck joist ends should be treated to reduce absorption of water

Saddle Flashing



- Deck ledger flashing to lap over saddle flashing.
- Saddle flashing may also be used for railing connections

Suggestions for Further Research:

“Rain Control in Buildings,” Building Science Digest-013, www.buildingscience.com.

“Understanding Drainage Planes,” Building Science Digest-105, www.buildingscience.com.

“Increasing the Durability of Buildings,” Building Science Digest-144, www.buildingscience.com.

Lstiburek, Joseph W.; *Builder's Guide Series*, Building Science Press, 2006.

Lstiburek, Joseph W.; *Water Management Guide*, Building Science Press, 2006.