PARTY WALL

1. Apply elastomeric caulk (STO Rapid Seal or similar) where joist meet masonry wall.
2. Apply ‘STO Gold’ fluid applied membrane to party wall brick.
3. Hold plywood subfloor off party wall temporarily to allow continuous application of air seal in joist bay.
4. Existing party wall.
5. Structural member beyond.
6. Double C-joists tape ends before setting in pocket, fill in at pocket solid with closed cell spray foam.

AIR SEAL DETAILS AT PARTY WALL JOIST POCKETS
• The relationship between air barrier, insulation + fenestration is key to passive principles.
• These areas are critical to avoid thermal bridging.

**NOTE: in a landmarked district, the historic Front door must remain. A strategy to air seal the vestibule was developed to avoid a large compromise in the air barrier.**
PROCESS OF EXTERIOR WALL INSTALLATION / AIR BARRIER APPLICATION

PHOTOS: TACONIC BUILDERS
**EXISTING FRONT MASONRY WALL**
2. AIR BARRIER CONTINUOUS TO NEXT FLOOR, INSTALLED PRIOR TO DECKING AND WALL FRAMING
3. NEW WOOD FRAMING
4. PLYWOOD SUBFLOOR
5. SECONDARY JOIST/NAILER TO SUPPORT SUBFLOOR AFTER CONTINUOUS AIR BARRIER IS COMPLETED
6. ANCHORS TO WALL AS REQ’D
7. NEW WOOD JOIST TIED BACK TO EXISTING MASONRY WALL WITH BLOCKING
8. INSULATE CAVITY BETWEEN MASONRY WALL AND FIRST JOIST (INFILL BETWEEN BLOCKING) WITH SPRAY FOAM OR RIGID INSULATION
9. MIN. 1/2” GAP BETWEEN MASONRY WALL AND BACK OF STUD
10. 3 1/2” X 1 1/2” ENGINEERED STUDS

*NOTE: A DETAIL AT THE FIRST AND LAST JOIST WAS DEVELOPED TO ACCOMPLISH TWO GOALS:
1. BREAK THE THERMAL BRIDGE AT THE FIRST JOIST
2. PROVIDE A CLEAN NAILER FOR BRIDGING THAT WOULD PROTECT THE AIR BARRIER MEMBRANE.

**DETAIL @ FIRST FLOOR JOIST**
**AT FRONT/REAR WALL**

11. 1 1/2 BATT INSULATION
12. MIN. 4” OF DENSE PACKED CELLULOSE INT. AIR BAR.
13. TAPE + SEAL ALL SEAMS
14. 3/4” X 1 1/2” COUNTER BATTING LAID VERTICALLY TO SECURE AIR BARRIER
15. 3/4” X 1 1/2” NAILER LAID HORIZONTALLY FOR SECURING GWB + ACT AS 1 1/2” SERVICE CAVITY FOR ELECTRICAL/PLUMBING
16. 5/8” GWB.
• The top of the envelope where many mechanical, electrical, and plumbing penetrations occur.
• This is a surface area where a large heat gain or loss can occur, so proper build up and detailing is essential.
• Review of proposed structural schemes is vital in regards to thermal building + subsequent energy transfer.
• Rain + water control
ROI OF BLOCKS HEAT FROM ENTERING HOME IN THE FIRST PLACE

ISSUE:
Typical insulation below roof does not block heat from entering.

SOLUTION:
Insulate at both above + below roof system; this will block heat transfer from the exterior.
NYC allows up to 8 inches of insulation above the max building height.
ROOF

PHOTOS: KLEEN CONSTRUCTION, P JOE CONSTRUCTION

CEILING / ROOF
AIR BARRIER
APPLICATION