



MASONRY CAVITY WALLS DETAILS

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ABSTRACT

These eleven cavity wall details illustrate some of the principles presented in the paper in this publication titled "Architectural Design of Masonry Cavity Walls." These details were prepared with the hope of reducing architectural design errors that account for about half of all masonry failures.

INTRODUCTION

Typical architectural errors relating to the design of cavity walls supported on structural frames include the following *inter alia*::

1. Inadequate shelf angle design
2. Improper flashing materials and details
3. Non-modular masonry plans
4. Masonry copings and sills
5. Use of sand finished brick
6. Exterior raked mortar joints
7. Absence of weepholes and vents or their excessive spacing
8. Absence of vapor/air barriers
9. No drips on sills and copings
10. Fascia unsealed at lower edge or does not extend down at least 50 mm (2 in.) beyond top of masonry
11. Improper ties and tie spacing
12. Absence of rising damp barrier
13. Sealant joints not fire protected
14. Coping not sloped
15. Inadequate or no of expansion joint under shelf angle and between top of interior wythe and spandrel beam soffit.
16. Exterior flashing edge held back 13 mm (1/2 in.) from face of wall
17. Cavity width less than 50 mm (2in.)
18. No coordination of construction tolerances for structural frames and masonry walls
19. Improper or no anchorage of interior wythe to spandrel beam soffit
20. Exterior grade line above weepholes
21. Improper sealant joint location and design

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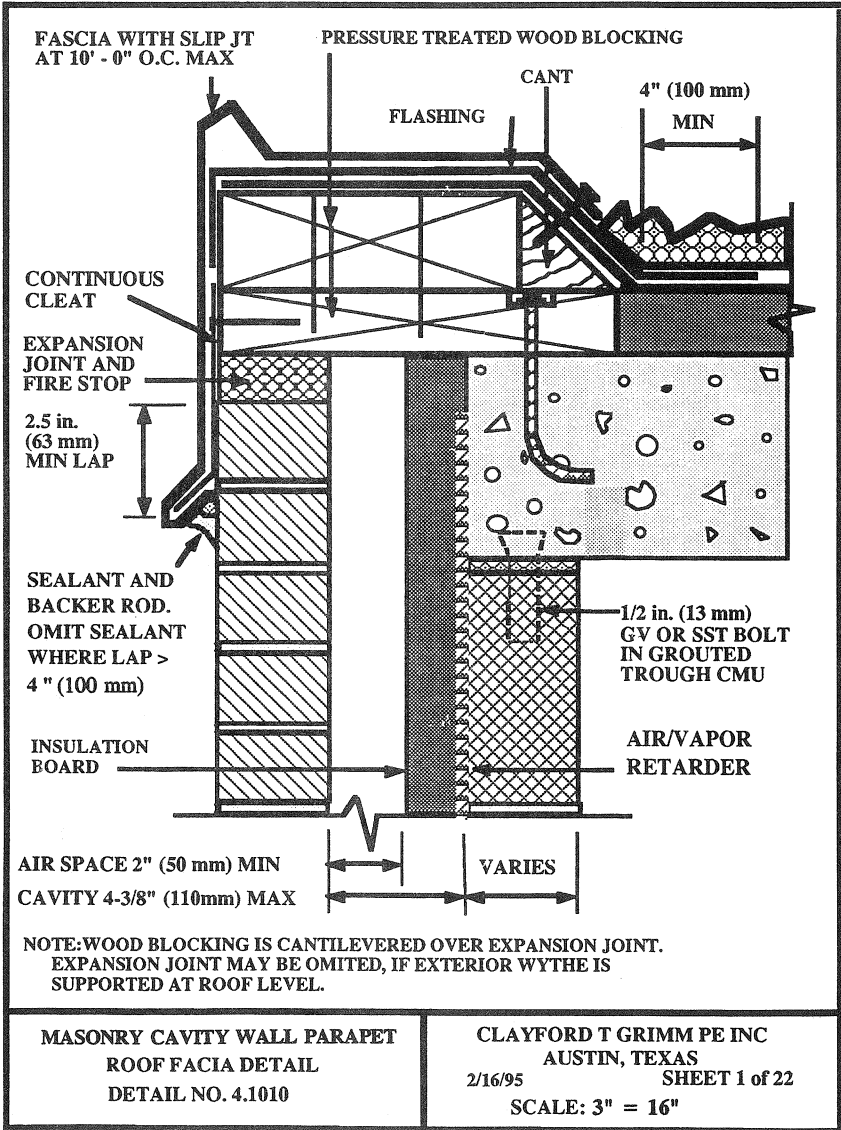


Fig 1

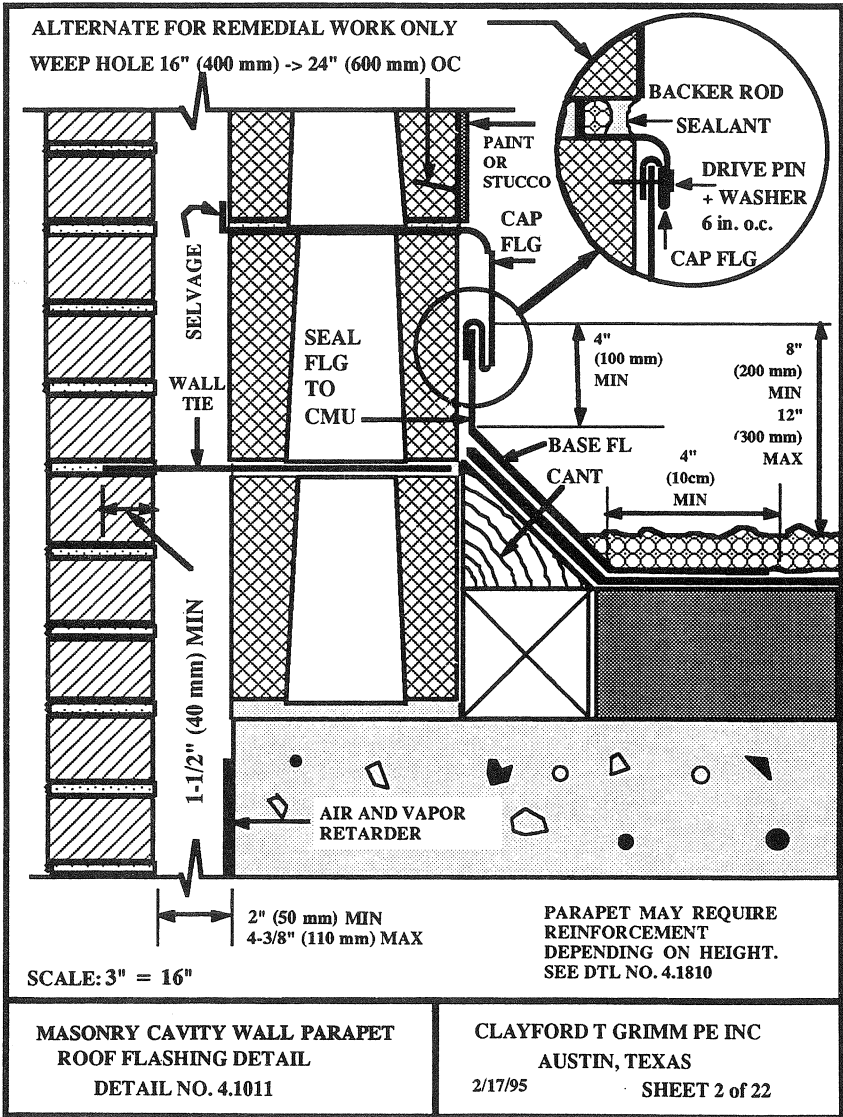


Figure 2

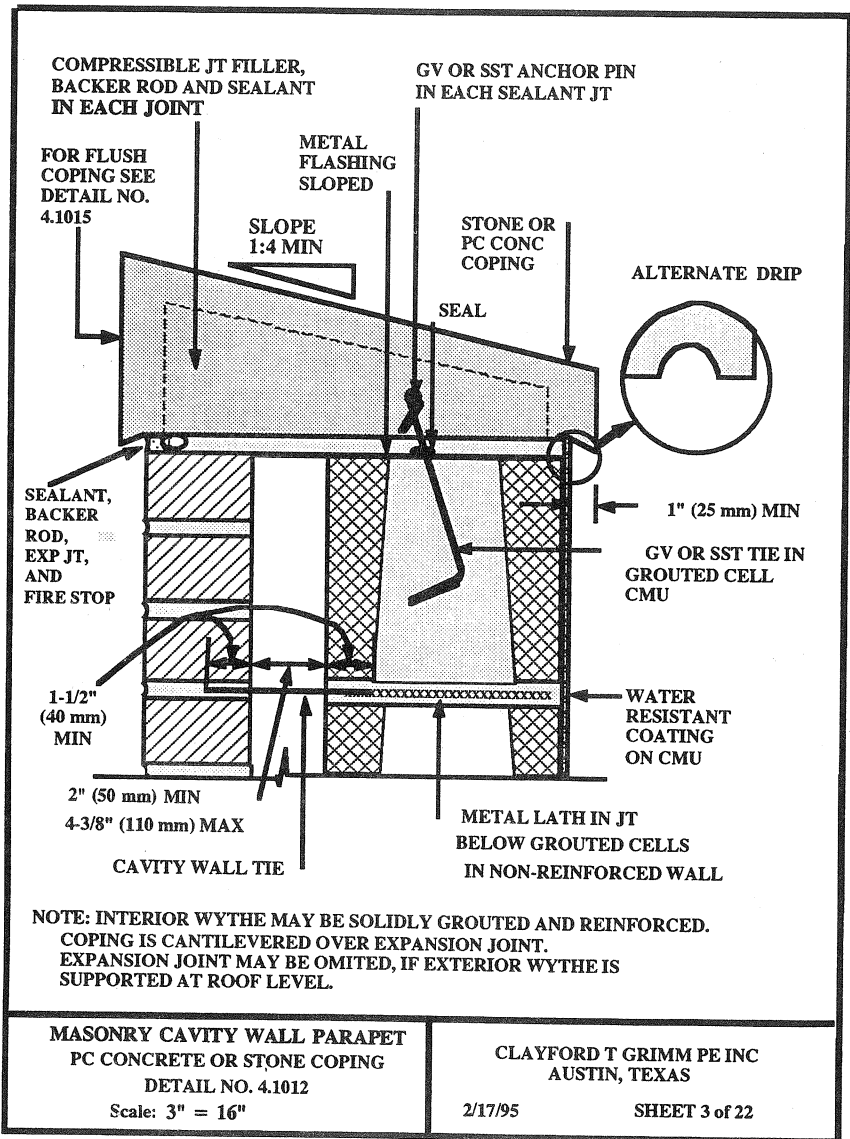


Fig 3

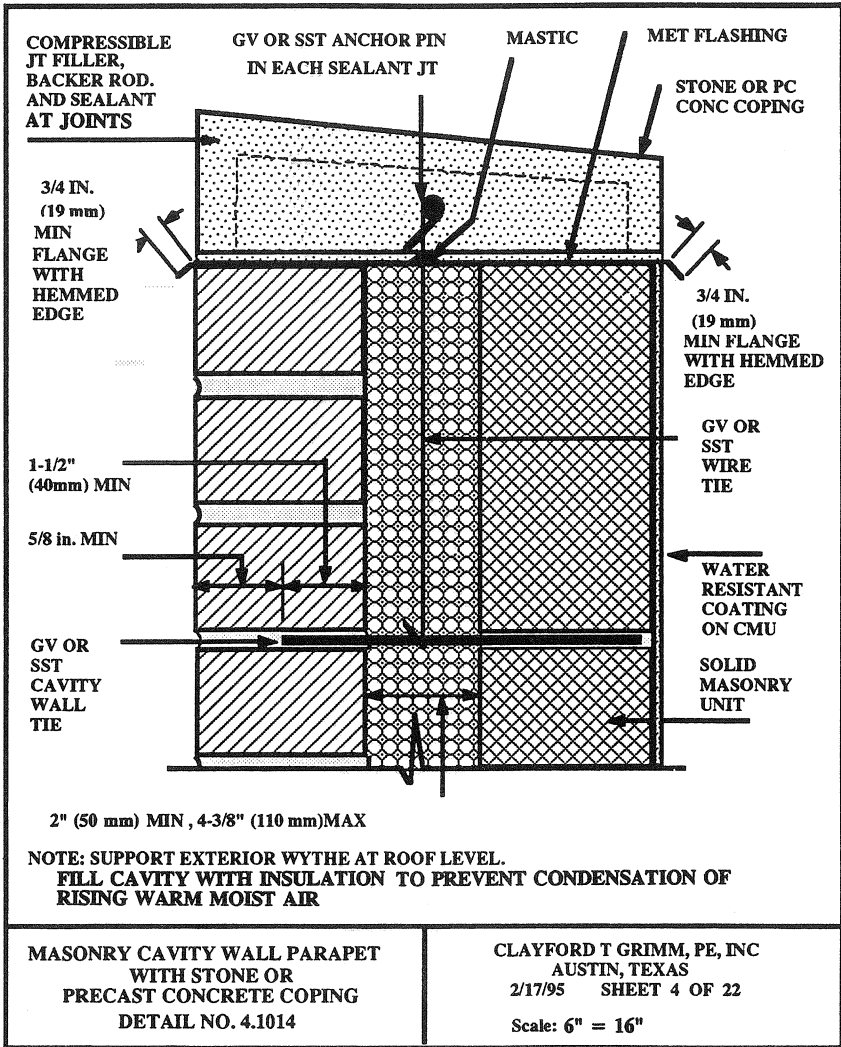


Fig 4

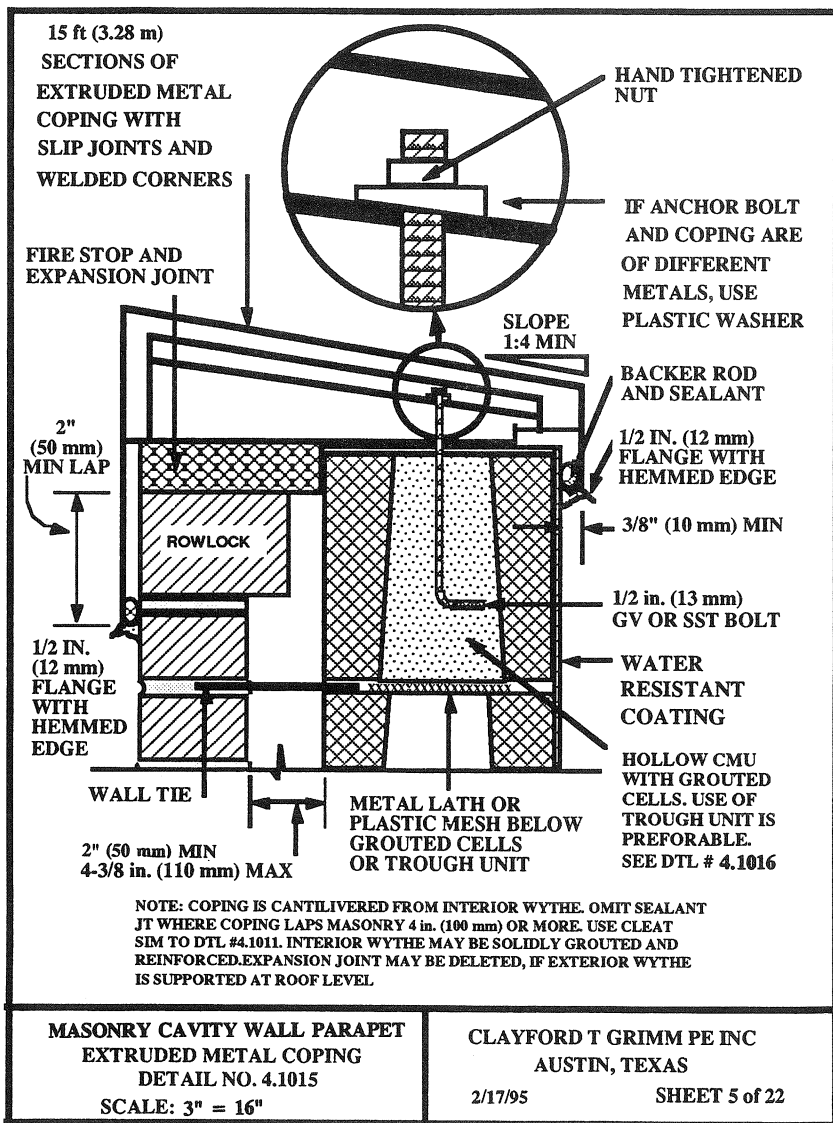


Fig 5

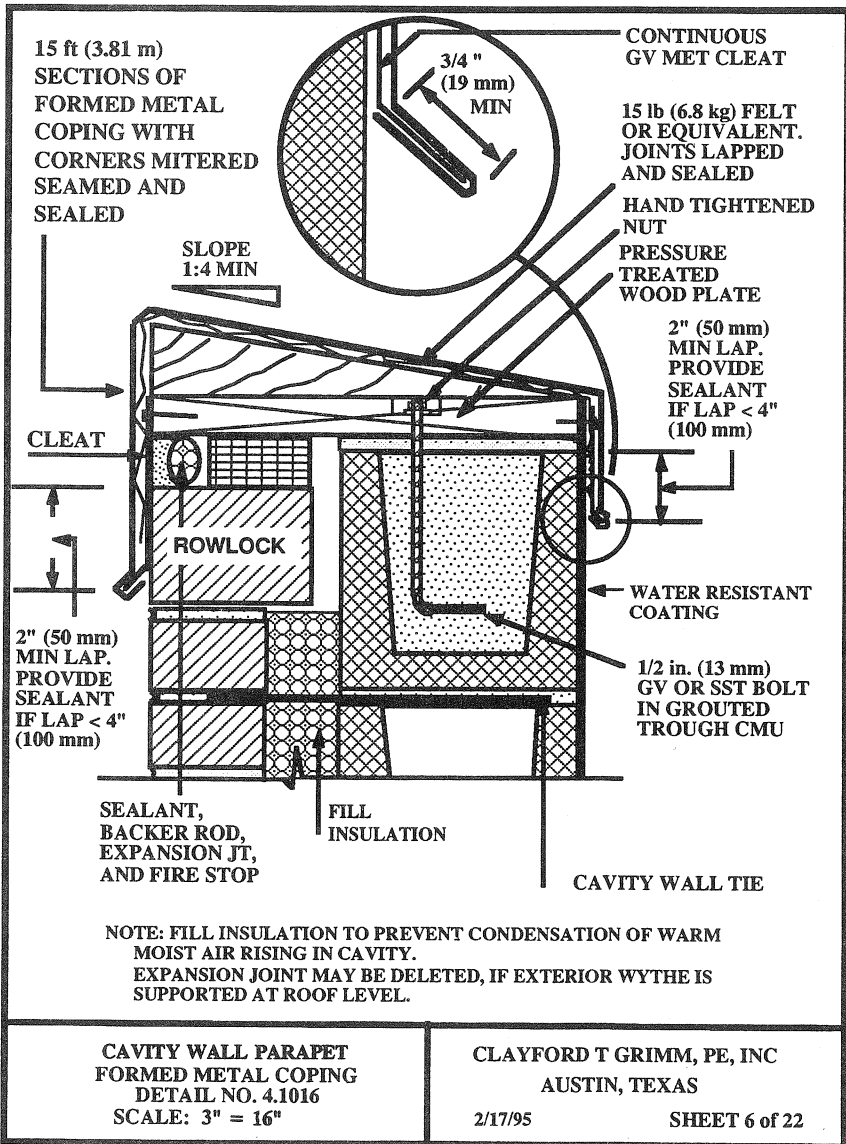


Fig 6

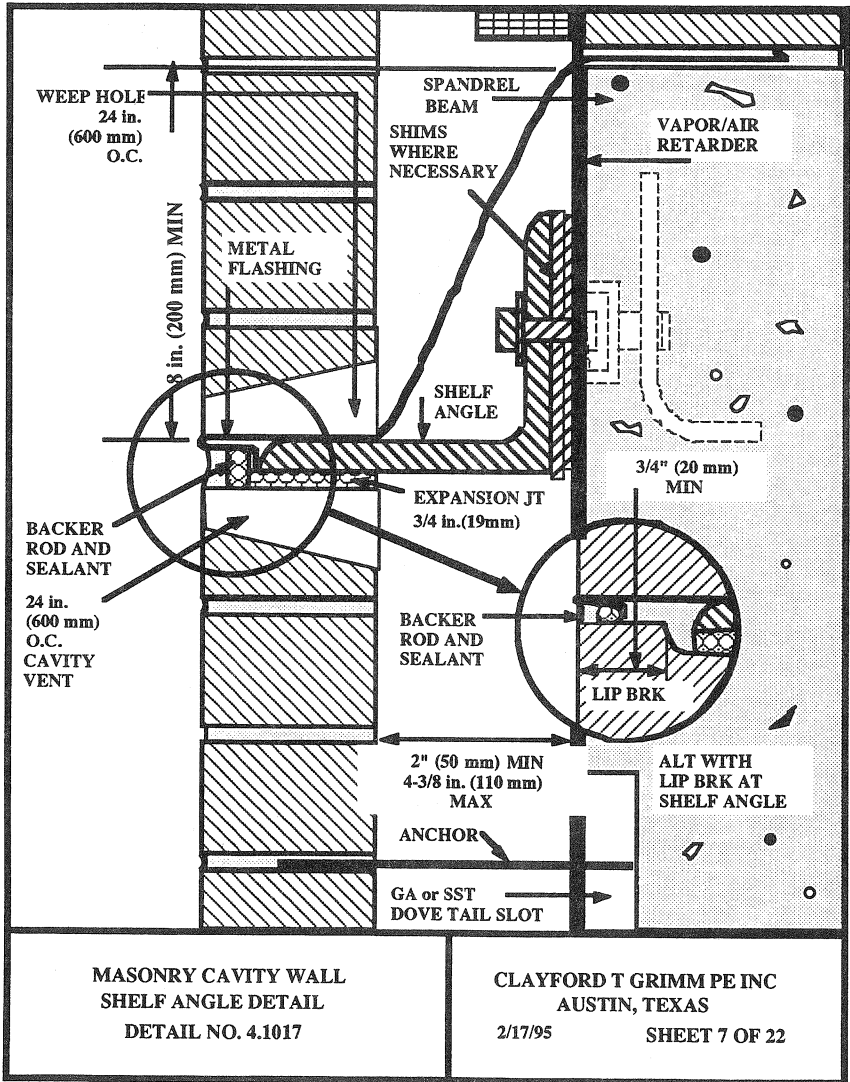


Fig 7

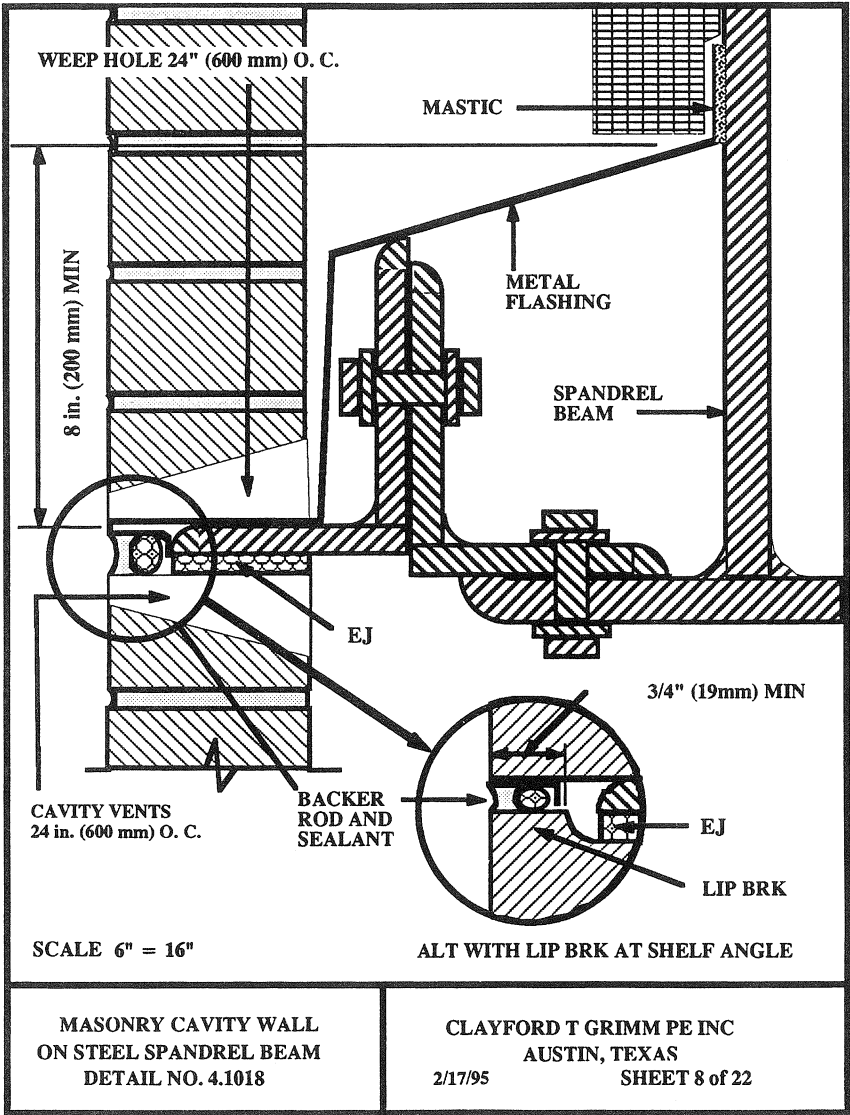


Fig 8

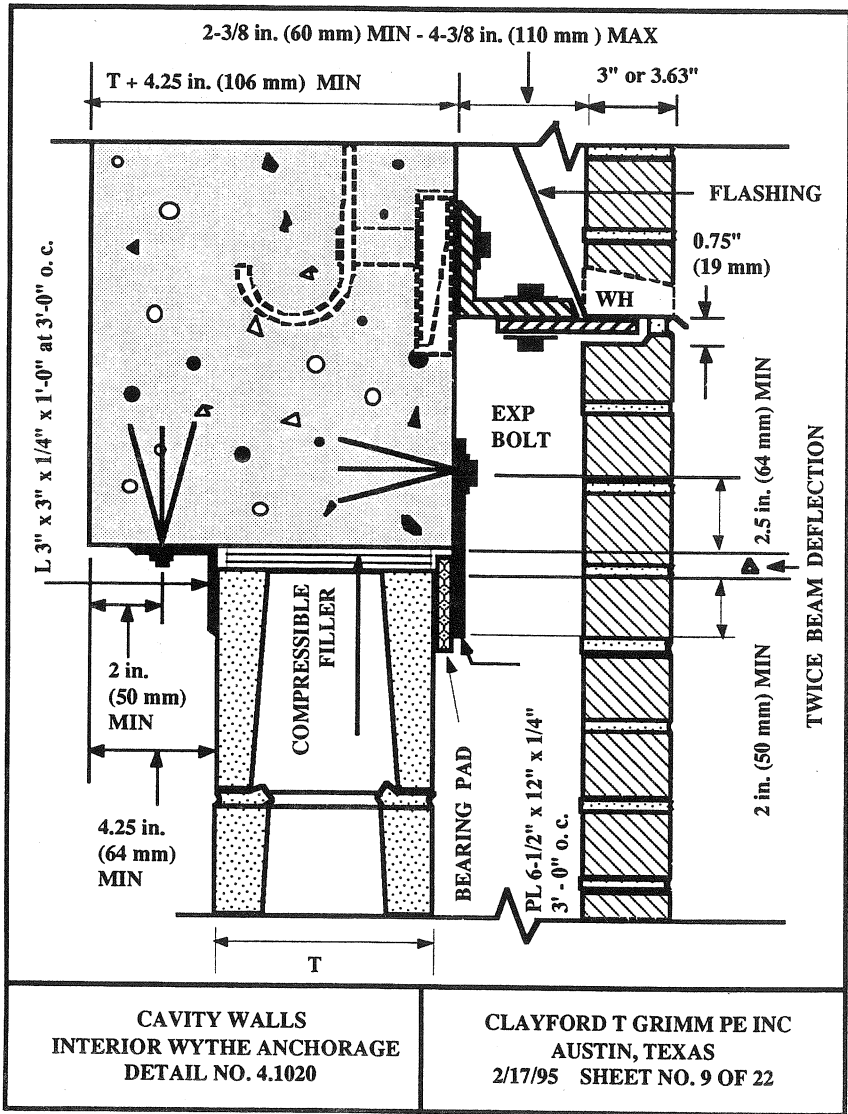


Fig 9

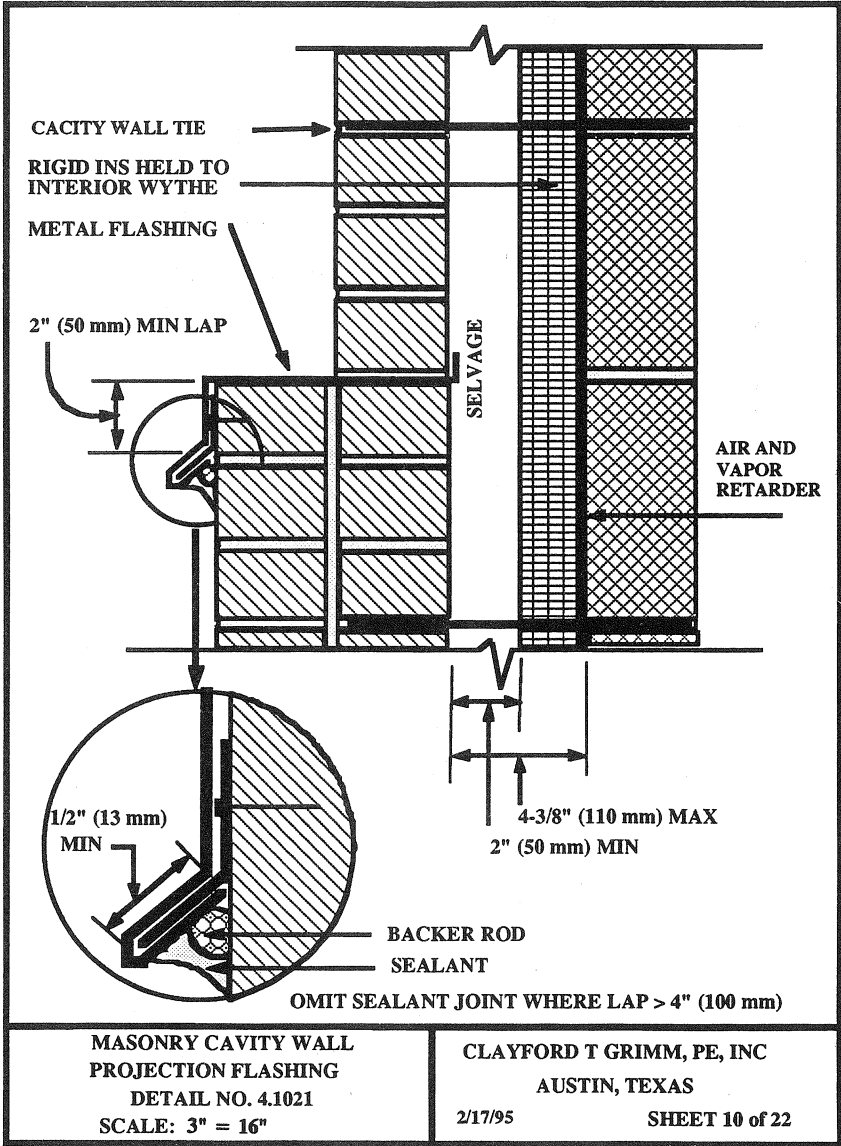


Fig 10

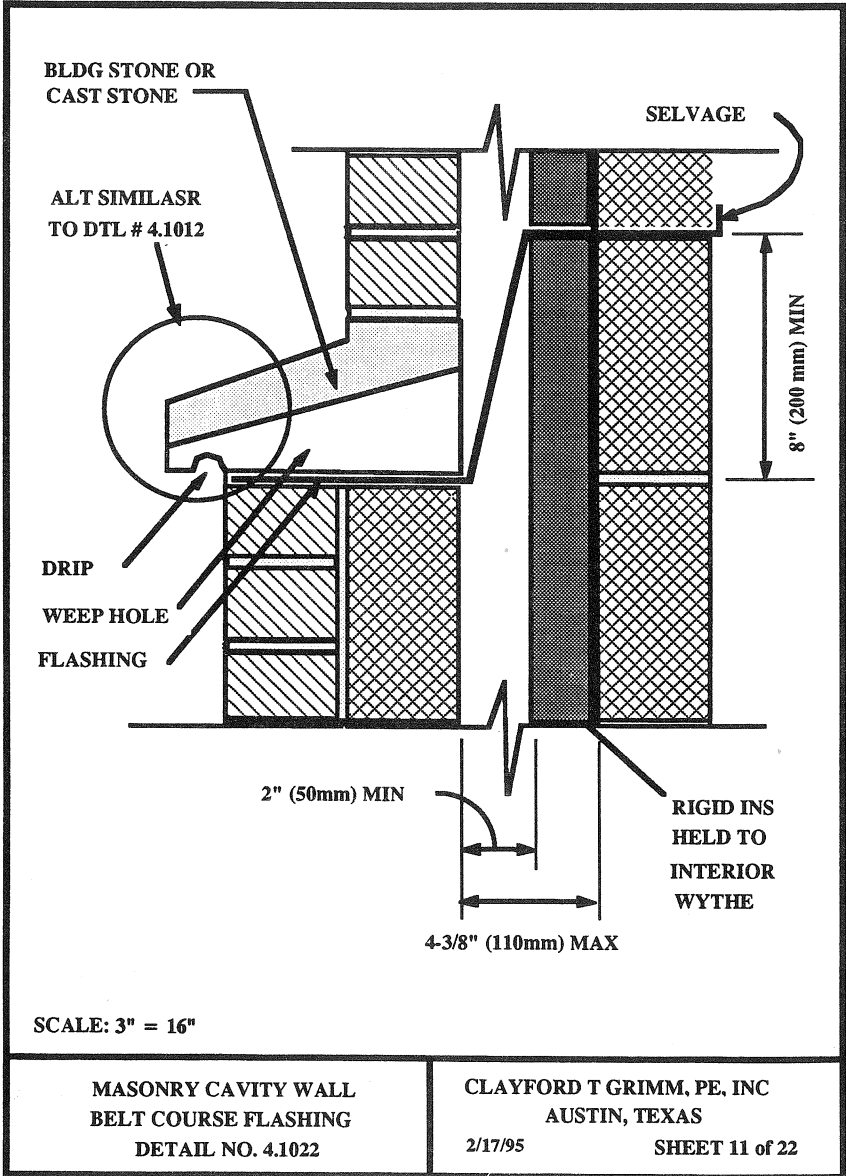


Fig 11