



FIGURE 14.20 Section through new foundation piers at rigid frame in the Case Study.

REFERENCES

1. James E. Grimes, "Metal Reroof Systems Deserve a Closer Look by Specifiers," *Metal Architecture*, November 1993.
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3. Wayne Tobiasson, "Some Thoughts on Snowloads," *Structure*, Winter 1995.
4. *NuRoof Design/Installation Information*, MBCI Publication, October 7, 1993.
5. Rene Dupuis, "How to Prepare Comprehensive Re-roofing Specifications," *1989 Handbook of Commercial Roofing Systems*, Edgell Communications, Inc., Cleveland, OH, 1989.
6. Alexander Newman, *Structural Renovation of Buildings: Methods, Details, and Design Examples*, McGraw-Hill, New York, 2001.
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REVIEW QUESTIONS

- 1 Explain some pitfalls in attempting to make a side-by-side addition to an existing pre-engineered building.
- 2 A builder proposes to erect a new framework for roof slope change and to place the framework columns on a regular 7×7 ft grid. The spacing of the existing roof secondary members is unknown, because they are covered by a drywall ceiling and the owner does not want to remove it. What advice would you give to the builder and the owner?
- 3 What would you suggest to the owner who wishes to replace rusting metal siding with brick veneer?
- 4 Name at least two methods of increasing flexural capacity of primary framing.
- 5 Can rusted-through metal roofing be reliably recoated?
- 6 What can be done about rusting screws in a 30-year-old through-fastened metal roof?
- 7 It is proposed to re-cover the existing metal building roof with new metal roofing, fiberglass insulation, and a good vapor retarder. The existing roof also has fiberglass insulation faced with a vapor retarder. Is there a problem with this plan?
- 8 The owner asks for your "gut feel" about feasibility of adding a 20-ton HVAC unit on top of an existing metal building. What is your "gut feel" in the absence of any design data?