

780 CMR 120.U

INDEPENDENT STRUCTURAL ENGINEERING REVIEW

(See 780 CMR 110.11 of the *Sixth Edition of the Massachusetts State Building Code*)

120.U101 Primary Structure: For the purposes of the independent structural engineering review, the primary structure shall be defined as the structural frame, the load supporting parts of floors, roofs, and walls, and the foundations. Cladding, cladding framing, stairs, equipment supports, ceiling supports, non-load bearing partitions, and railings are excluded from this definition of primary structure.

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120.U103 Criteria for Review: The reviewing engineer shall review the plans and specifications submitted with the application for the building permit for compliance with the structural and foundation design provisions of the Code. The reviewing engineer shall perform the following tasks:

1. Check to assure that the design loads conform with 780 CMR;
2. Check that other design criteria, and design assumptions, conform to 780 CMR and are in accordance with accepted engineering practice;
3. Review geotechnical and other engineering investigations that are related to the structural design to determine if the design properly incorporates the results and recommendations of the investigations;
4. Check that the organization of the structure is conceptually correct, **including structural load paths;** and
- 5. Make an independent analysis of the lateral load resisting system of the structure as a whole, subjected to the loads required by 780 CMR;**
- 6. Make an independent representative analyses of the gravity load resisting systems, subjected to the loads required by 780 CMR;**
- ~~5~~ **7. Make independent calculations for a representative fraction of systems, members, and details to check their adequacy. The number of representative systems, members, and details shall be sufficient to form a reasonable basis for the reviewer's conclusions-; and**

8. For existing buildings, review the report required by 780 CMR 3408.6 for the evaluation of an existing building by the structural engineer, for conformance to the requirements of 780 CMR and accepted engineering practice.

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120.U105 Report and follow-up:

1. The reviewing engineer shall prepare a report to the building official stating whether or not the structural design shown on the drawings and the specifications conform with the structural and foundation requirements of 780 CMR. Said report shall be based on the review as prescribed in 780 CMR 120.U and shall include a summary of all deficiencies, if any, which cannot be resolved with the structural engineer of record.
2. The structural engineer of record shall review the report of the reviewing engineer, and notify the building official in writing, whether or not he agrees with or disputes the conclusions and recommendations of the reviewing engineer.
3. Unresolved disputes between the structural engineer of record and the reviewing engineer shall be submitted by the building official, the owner, the structural engineer of record or the reviewing engineer to the Structural Peer Review Advisory **Committee** ~~Board~~ for resolution.
4. Any changes to the structural design subsequent to the original submission of the plans and specifications shall be shown on revised drawings and specifications, submitted with an amendment to the application for permit. The reviewing engineer shall review the changes on the revised drawings and specifications, and, if the original report does not account for the changes in said drawings and specifications, a supplementary report relating to the changes and prepared by the reviewing engineer shall be made to the building official.

120.U106 Foundation Permits: When the plans and specifications are partially complete and an application is made for a foundation permit, the reviewing engineer may review the foundation plans and specifications on a conditional basis, provided that the reviewing engineer is given sufficient documentation ~~so that he can~~ **to** perform **all** 780 CMR

120.U103, ~~Tasks 1, 2, 3, and 4~~ **tasks, except Task 7** for the whole structure, and ~~so that he can~~ **to** perform 780 CMR 120.U103, Task ~~5~~ **7** for that part of the foundation covered by the application for foundation permit. The reviewing engineer shall prepare a report on that part of the foundation covered by the application for foundation permit, as prescribed in 780 CMR 120.U105, stating all conditions upon which the report is based. When the reviewing engineer reviews the completed plans and specifications as prescribed in 780 CMR 120.U103, the reviewing engineer shall reperform ~~Tasks 1, 2, 3, and 4,~~ **the tasks of 780 CMR 120.U3** as necessary, to include all the revisions to the design subsequent to the application for the foundation permit.