

Examples

1. Steel roof deck on open web steel joists or steel beams
2. Cementitious deck on open web joists
3. Composite action concrete slabs and steel beams
4. Pre-engineered building systems
5. Concrete on steel form deck floor
6. Cast-in-place floor *slabs (1-way or 2-way)*
7. Steel and/or reinforced concrete columns and beams
8. Load bearing masonry walls
9. Wood Frame systems or Heavy Timber Frame Systems
10. Engineered wood products including engineered wood joists and beams, pre-engineered wood trusses, OSB and plywood.
11. Other systems if recommended and acceptable to the structural engineer and Owner and in accordance with the applicable Fire Prevention and/or Building Codes.

Standards

1. **Structurally sound.**
2. **Structural systems and members shall be designed by a licensed structural engineer to meet current state fire prevention and building codes and to have adequate stiffness to limit deflections and lateral drift to the requirements of these codes.**
3. **Steel roof deck: as designed by structural engineer.**
4. **For cementitious decks, use galvanized sub-purlins.**
5. **For roof slopes greater than 1:12, metal joists shall span parallel to the slope**
6. **Do not use calcium chloride in concrete.**
7. **For structural steel, comply with AISC specifications and current state building codes.**
8. **Steel joist manufacturer shall be certified by steel joist institute (SJI).**
9. **Non-painted steel roof deck, if galvanized, to be ASTM A924, G90 (90 oz. per sq.ft.) zinc coating. Steel floor deck shall be galvanized and to be ASTM A924 G60.**
10. **Concrete deck fill: minimum compressive strength of 3,000 psi or greater at 28 days.**
11. **Structural steel fabrication must be in accordance with standards.**
12. **Rolled steel columns and beams: ASTM A572, grade 50 or others if recommended and approved by the structural engineer; Square or rectangular hollow structural steel sections shall be ASTM Grade B, Fy = 46 ksi; Round hollow structural steel sections shall be ASTM A 500, Grade B, Fy = 42 ksi.**
13. **Concrete columns: minimum compressive strength of 3,000 psi or greater at 28 days**
14. **Steel form deck shall comply with SDI design manual (*publication no. 27*).**
15. **Structural masonry columns shall be filled and reinforced.**
16. **Load bearing masonry walls shall comply with current state building codes.**
17. **Steel lintels in exterior walls: if 8" or less in depth and 12" or less in length, use hot-dipped galvanized, grade 65. For lintels greater in size, use ASTM A123M-02.**
18. **Steel lintels, other than angles, supporting masonry shall have rigid masonry anchors at 32" maximum spacing to secure masonry to steel.**
19. **Reinforced masonry lintels shall be used in exterior walls wherever possible.**
20. **Concrete mix design to be designed and strength tested by qualified independent testing agency to meet these requirements and any others from the Design Professional.**
21. **All lumber used for wood trusses shall be #2 grade, kiln dried, Southern Pine; #2 grade, kiln dried, Spruce-Pine-Fir; or #2 grade Hem-Fir or better. #3 grade lumber shall not be allowed for chords or web members.**