

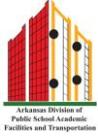
Framing Systems

Examples

- Steel roof deck on open web steel joists or steel beams
- Cementitious deck on open web joists
- Composite action concrete slabs and steel beams
- Pre-engineered building systems
- Concrete on steel form deck floor
- Cast-in-place floor slabs (*1-way or 2-way*)
- Steel and/or reinforced concrete columns and beams
- Load bearing masonry walls
- Wood Frame systems or Heavy Timber Frame Systems
- Engineered wood products including engineered wood joists and beams, pre-engineered wood trusses, OSB and plywood
- 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 the American Institute of Steel Construction (AISC) specifications and current state building codes.
8. Steel joist manufacturer shall be certified by the 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, $F_y = 46$ ksi; Round hollow structural steel sections shall be ASTM A 500, Grade B, $F_y = 42$ ksi.
13. Concrete columns: minimum compressive strength of 3,000 psi or greater at 28 days.



14. Steel form deck shall comply with the Steel Deck Institute (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.