

SECTION 00 21 00

SUPERSTRUCTURE

PART 0 - PURPOSE

- A. Describe broad guidelines for design of schools.
- B. Establish materials qualities and applications.
- C. Describe materials and conditions which do not easily fit into specific specification sections.
- D. See specific sections of Design of Construction Standards for additional requirements.

PART 1 - GENERAL

- A. General Framing
 - 1. Minimize use of interior load bearing walls to allow for future flexibility.
- B. Roof Structures
 - 1. Minimum load capacity: Roof membrane dead load to be 10 pounds per square foot (minimum) regardless of roofing system specified.
 - 2. Pitch: Drainage of roof areas to utilize structural slope as much as possible. See Section 07500 for minimum slope requirements.
- C. Floor Structures
 - 1. Design floor structures for future flexibility. Recommend 50 pounds per square foot design live load minimum plus allowance for partitions.
- D. Foundations
 - 1. Follow recommendations contained in Geotechnical report. Geotechnical report to include discussion of collapsible/expansive soils and potential for sulfate attack.
- E. Verify that structural steel finishes (primer, etc.) are compatible with subsequent finishes (paint) and/or subsequent treatments (i.e. spray or trowel applied fireproofing).
- F. Detail sloping members and splice conditions. Perform welding in accordance with AISC/AWS procedures.
- G. Specify welding procedures.
- H. Specify storage requirements to include protection of members prior to erection.
- I. Indicate bearing plate setting tolerances.
- J. Include erection tolerances. Erection tolerances shall be established for structural integrity and aesthetic appearance. At a minimum, specify standard tolerances from the AISC Code of Standard Practice. More stringent requirements may be required for Architecturally Exposed Structural Steel Elements (AESS).
- K. Coordinate joist finishes to assure they are compatible with subsequent treatments (i.e. spray or trowel applied fireproofing).
- L. Detail bridging anchorage at masonry walls and other bridging terminations.
- M. Detail sloped bearing conditions so that bearing plates and joist bearing ends do not require shims or other remedial actions.

- N. Fastening of deck to structure shall be through welding washers or self-tapping screws. Weld washers are required on decking 22 gauge and thinner. Washers are not required on metal decking greater than 22 gauge. Puddle welds are prohibited on all types of metal deck. Side lap and end lap fastening shall be made using self-tapping screws only.
- O. Determine if shoring is required for elevated slab pours. If needed, specify requirements.
- P. Specify all required accessories including closure plates and pour stops.
- Q. Specify all restrictions on decking including:
 - 1. Maximum openings permitted without sub-framing
 - 2. Maximum span
- R. Coordinate finishes with subsequent treatments and/or exposures including:
 - 1. Coordinate decking finish to receive fireproofing.
 - 2. Coordinate decking finishes for special exposures.

PART 2 - PROHIBITIONS

- A. Steel decking shall not be used for the attachment of anchorages or supports for suspended equipment, sub-framing systems, substructure, ceilings, fascias, soffits, or other mounting, bracing, or fastening.
 - 1. Exception: Attachment, anchorages, or supports specifically designed or approved by the Structural Engineer.

END OF SECTION 00 21 00