Jefferson County School District, R-1
Support Services

TECHNICAL GUIDELINES

DIVISION 13 – SPECIAL CONSTRUCTION

AUGUST 2022

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- Work in this section is open to any product or material.

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- Work in this section is open to any product or material.

END SECTION 13 23 00

13 26 00 Fabricated Rooms – October 2010

- Work in this section is open to any product or material.

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13 28 29 Portable Stages – October 2010

- Work in this section is open to any product or material.

END SECTION 13 28 29

13 28 33 Athletic and Recreational Court Walls – October 2010

- Work in this section is open to any product or material.

END SECTION 13 28 33

13 34 00 Fabricated Engineered Structures – October 2010

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
  1. Product Data:
     a. Required
  2. Shop Drawing:
     a. Required
  3. Design Data, Certificates, Manufacturer Instructions, Mfr. Field Reports:
     a. Required
  4. Closeout:
     a. Submittals listed above
        (1) Updated to record status

- Materials
  1. Concrete masonry construction is preferred
  2. Sheet metal, wood, and fiberboard are not recommended

END SECTION 13 34 00

13 34 13 Greenhouses – August 2019

- Structures of any size must secure a building permit through the Department of Public Safety.
- Greenhouses shall not be available to the general public.
- Submittals:
  1. Provide dimensioned drawings consisting of site plan, floor plan, elevations and wall section showing construction method and materials.
  2. Greenhouses shall be designed to current code for the roof and snow loads. Calculations by a Colorado Professional Engineer shall be provided.
- Greenhouse installer shall meet the requirements of the Jeffco Schools MS4 storm water permit.
- Work in this section is open to any manufacturer meeting these Technical Guidelines.
- Ventilation and heating is optional. If provided, installation shall meet the requirements of these Technical Guidelines and mechanical codes. Mechanical ventilation and/or heating shall be provided by the manufacturer.
- Electrical power and lighting is optional. If provided installation shall meet the requirements of these Technical Guidelines and electrical codes. Any specialty electrical shall be provided by the manufacturer.
- Minimum plumbing installation consists of a three cubic foot sediment container with accessible grate. Container to be periodically emptied by Facility Maintenance.
- Hydroponic systems shall connect to a sanitary sewer system. If a sewer system is not available a drainage field consisting of buried perforated pipe shall be provided. When a plumbing system is provided it shall comply with these Technical Guidelines and applicable plumbing codes. Specialty plumbing systems consisting of misters or hydroponics shall be provided by the manufacturer.
- 5 years minimum experience in the manufacture and installation of greenhouses.
- Specific Requirements:
  1. Only new systems and components allowed
  2. Framing: Steel , aluminum, wood, composite-reinforced wood (Trex-type material)
     - Prohibited Materials: Fiberboard, plastic, PVC or other non-composite reinforced vinyl, and unfinished or unpainted wood
  3. Glazing: Any product that meets or exceeds local snow and wind load requirements
  4. “E” Occupancy, classifying structures as Educational
  5. Occupancy is limited to no more than 20 SF per person (Same as a Standard Classroom)
  6. Fully ADA accessible. Door, door hardware, access path to greenhouse, access within greenhouse. ADA accessible stand and tray heights.
  7. Emergency exiting paths must be ADA accessible and must be clearly designated.

8. A restroom must be available within 500' and must be on an ADA accessible route.
9. Minimum 20 feet from any permanent school building or structure. If less than 20 feet, a Fire Code analysis by a licensed design professional must be conducted showing fire ratings and modifications, if any, to existing and proposed structures for fire ratings and fire separation walls to meet Code.
10. Cannot be placed within fire and emergency access lanes
11. Adequate footings and tie-downs designed by a structural engineer with engineered, stamped drawings submitted as part of the permitting process.
12. Must meet local snow and wind loads. Engineered, stamped drawings submitted as part of the permitting process.
13. Local Fire Marshal must approve design and location.

END SECTION 13 34 13

13 34 23 Gazebos, Pavilions, Trellises, and other Open-Air Covered Structures – August 2021

- Gazebos, Pavilions, Trellises, and other Open-Air Covered Structures (non-play equipment) of any size:
    1. Only new systems and components allowed
    2. State Building Permit is required.
    3. "E" Occupancy, classifying structures as Educational
    4. Occupancy is limited to no more than 5 SF per person
- Framing: Steel, aluminum, wood, composite-reinforced wood (Trex-type material)
- Prohibited Materials: Fiberboard, plastic, PVC or other non-composite reinforced vinyl, and unfinished or unpainted wood
- Roof Covering: Standing seam steel panels, fiberglass shingle assembly, or other weather-resistant materials approved by the District Project Manager.
    1. Prohibited Materials: Fiberboard, plastic, PVC or other non-composite reinforced vinyl, and unfinished or unpainted wood
    2. Fabrics may be utilized with approval of District Project Manager.
    3. School District will not replace damaged fabrics.
- Fully ADA accessible within and an ADA accessible path to the structure. If benches are built into the structure, at least one must be ADA accessible (17"-19" A.F.F.). If there is a step or steps to get into/under the structure, an ADA ramp is required.
- A restroom must be available within 500' and must be on an ADA accessible route.
- Minimum 20 feet from any permanent school building or structure. If less than 20 feet, a Fire Code analysis by a licensed design professional must be conducted showing fire ratings and modifications, if any, to existing and proposed structures for fire ratings and fire separation walls to meet Code.
- Cannot be placed within fire and emergency access lanes
- Adequate footings and tie-downs designed by a structural engineer with Engineered, stamped drawings submitted as part of the permitting process.
- Must meet local snow and wind loads. Engineered, stamped drawings submitted as part of the permitting process.
- Local Fire Marshal must approve design and location.

END SECTION 13 34 23

13 34 24 Wood Framed Storage Sheds – August 2019

- Plastic construction and metal panels are prohibited.
- Wood framed storage sheds:
    1. State Building Permit is Required if more than 120 square feet:
    2. "U"-Occupancy, classifying structures as a Utility (no permanent occupancy allowed)
    3. Regardless of size, structures shall be placed a minimum of 20 feet from any permanent school building or structure. If less than 20 feet, a Fire Code analysis by a licensed design professional must be conducted showing fire ratings and modifications, if any, to existing building(s) and proposed structures for fire ratings and fire separation walls to meet Code.
    4. Cannot be placed within fire and emergency access lanes
    5. Freight Storage Containers cannot have water or electrical power.
    6. General Construction:
        a. Ranch Style Only
        b. Two screened gable vents
        c. Adequate footings and tie-downs. Must be designed by a structural engineer with Engineered, stamped drawings submitted if a permit is required.
        d. 6", 16 gauge galvanized steel floor joists
        e. 3/4" Tongue and Groove flooring
        f. Full 2x4 construction, 16" centers with double top plates
        g. Full 7' interior side walls
        h. Wood siding and trim with a 50 yr Mfr. warranty
        i. Galvanized steel reinforced door frame with aluminum threshold
        j. 5/12 roof pitch with drip edge around entire roof
        k. Roof constructed with minimum 7/16 roof decking with minimum 4-inch eaves on sidewalls
        l. Roofing:
            - 15 lb felt roof paper
            - 30-year Dimensional Shingles
    7. Base: Level base material consisting of a concrete slab, asphalt, compacted gravel, crusher fines, or other acceptable base as approved by the District Project Manager.

13 42 23 Pre-Fabricated Freight Storage Containers – August 2019

- Freight Storage Containers more than 120 square feet:
    - State Building Permit is Required
    - "U"-Occupancy, classifying structures as a Utility (no permanent occupancy allowed)
    - Minimum 20 feet from any permanent school building or structure. If less than 20 feet, a Fire Code analysis by a licensed design professional must be conducted

showing fire ratings and modifications, if any, to existing building(s) and proposed structures for fire ratings and fire separation walls to meet Code.

- Cannot be placed within fire and emergency access lanes
- Freight Storage Containers cannot have water or electrical power. If power or water is requested, the occupancy type changes to an "E"-Occupancy and you must follow the requirements listed under "E"-Occupancy. Storage Buildings may have electrical power.
- Adequate footings and tie-downs designed by a structural engineer with Engineered, stamped drawings submitted as part of the permitting process.
- Regardless of Container size, provide level base material consisting of a concrete slab, asphalt, compacted gravel, crusher fines, or other acceptable base as approved by the District Project Manager.
- Must meet local snow and wind loads. Engineered, stamped drawings submitted as part of the permitting process.
- Signage at Freight Storage Containers designating:
  1. "Staff Only - No Students or Unauthorized Personnel Allowed"
  2. "To be Used for Storage Only"
- Local Fire Marshal must approve the design and location
- Specific Requirements:
  1. All containers shall be 'New/One Trip'
  2. Nominal Size: 8-0" x 8'-6" x 10', 20', or 40'
  3. Double door end unit access
  4. Weathertight and watertight
  5. No dents or scratches over 12 inches in length and ½" in depth (minor dents and blemishes allowed).
  6. Colors: Beige, Gray, or Green. Free from graffiti, painted logos or labels. Small logo/brand signage acceptable.
  7. Rust-free steel construction
  8. Non-refrigerated units
  9. All containers shall meet or exceed the relevant standards listed under ISO Standards for Freight Containers. ISO 668, 830, 1161, and 1496.

END SECTION 13 42 23

13 42 00 Building Modules – October 2018

- Work in this section is open to any product or material.
- Large semi-permanent interior constructions such as reading lofts, storage modules, and cubicles may be considered as building remodeling which is subject to routine regulatory control such as reviews, permits, and approvals.
- Permanent interior construction such as a Student Store qualifies as remodeling and is excluded from this section.
- Submittals
  1. Shop Drawing:
     a. Preferred
- Interior constructions are prohibited:

1. In any component of the building's emergency egress system
2. In areas defined as "assembly" occupancies by the International Building Code (Cafeteria, Gymnasium, Auditorium)

- Portability:
  1. Units or unit components must be relocatable.
     a. Attachment of any kind to permanent building components (walls, ceilings, floors, etc.) is prohibited.
     b. Unit or unit components must fit through a single 3'-0" x 6'-8" door and frame without having to remove the door from its hinges.
     c. Maximum component weight = 200 lbs.
- Materials must comply with Jefferson County School District, R-1 Facilities Services Technical Guidelines.
- Fabrication
  1. ADA compliant
  2. Design and construct to maintain unobstructed visibility of all areas accessible to students.
  3. Permanently free of projecting screws, bolts, sharp edges, pinch points, and splinters
  4. Ladders:
     a. Not recommended
- Comply with International Building Code for the following:
  1. Flammability
  2. Stairs/Ramps
  3. Handrails/Guardrails
  4. Finishes
  5. Electrical and mechanical connections and accessories
  6. Structural loads
- Prefabricated aluminum ramps and steps as preferred
- Min. 2 ft asphalt band at skirt base of modular buildings for pest control

END SECTION 13 42 00

13 48 00 Sound, Vibration, and Seismic Control – October 2010

- Work in this section is open to any product or material.

END SECTION 13 48 00