

BuildingName  
The Description of the Project  
P00000000 0000

ARCHITECTURE & ENGINEERING  
326 East Hoover, Mail Stop B  
Ann Arbor, MI 48109-1002  
Phone: 734-764-3414  
Fax: 734-936-3334

**SPECIFICATION DIVISION 11**

NUMBER            SECTION DESCRIPTION

**DIVISION 11 EQUIPMENT**

SECTION 115213 - PROJECTION SCREENS

**END OF CONTENTS TABLE**



**DIVISION 11 EQUIPMENT**  
**SECTION 115213 - PROJECTION SCREENS**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Extent of projection screens is shown on drawings.
- B. Type of projection screen required:

***SELECT ONE OF THE FOLLOWING]***

- 1. Front projection screen, electrically operated, surface mounted unit.
- 2. Front projection screen, manually operated.

**1.2 RELATED SECTIONS**

***OMIT BELOW IF NO WOOD BACKING REQUIRED. MANUFACTURERS GENERALLY PROVIDE A BRACKET THAT POSITIONS THE SCREEN AWAY FROM THE WALL TO AVOID CONFLICT WITH CHALK TROUGH OF CHALKBOARDS.***

- A. Wood backing is included in Division 06 Section "Rough Carpentry".

***DELETE BELOW IF NO ELECTRICALLY OPERATED UNITS.***

- B. Electrical wiring, connections, and installation of remote control switches for electrically operated projection screens are specified in Division 26 sections.

**1.3 SUBMITTALS**

- A. Product Data: Submit copies of Manufacturer's specifications and installation instructions for projection screen unit.

***DELETE BELOW IF NO ELECTRICALLY OPERATED UNITS.***

- B. Wiring Diagrams: Submit manufacturer's wiring diagram for electrically operated units.

**1.4 QUALITY ASSURANCE**

- A. Quality Assurance: Obtain projection screen from a single manufacturer as a complete unit, including mounting hardware and accessories.

- B. Fire Performance Characteristics: Provide projection screen fabrics identical to those materials which have undergone testing and passed requirements for flame resistance of one of the following:

- 1. NFPA 701 per small scale test.
- 2. Federal Standard 191A/5903 for test method. FS GG-S-00172D(1) for flame resistance.

**PART 2 - PRODUCTS**

**DELETE BELOW UP TO "MANUALLY OPERATED FRONT PROJECTION SCREENS" IF NO ELECTRICALLY OPERATED UNITS**

**2.1 FRONT PROJECTION, ELECTRICALLY OPERATED SCREENS**

- A. General: Provide mfr's standard UL-listed and -marked units consisting of case, screen motor, controls, mounting accessories and other components as required for a complete installation and complying with requirements indicated.
- B. Viewing Surface of Screen: Comply with the following requirements for type of viewing surface:
  - 1. Matte white viewing surface with minimum gain characteristics complying with FS GG-S-00172D(1) for Type A screen surface; without black masking borders.
    - a. Edge Treatment: Without black masking borders.
    - b. Edge Treatment: With black masking borders.

**RETAIN EITHER ABOVE OR BELOW**

- 2. Glass beaded viewing surface with minimum gain characteristics complying with FS GG-S-00172D(1) for Type C screen surface.
    - a. Edge Treatment: Without black masking borders.
    - b. Edge Treatment: With black masking borders.
- C. Screen Controls: Remotely control operation of each screen as follows:

**MODIFY BELOW FOR MULTI-STATION UNITS**

- 1. Single station Control: Three-position, UL-listed control switch for each screen with metal device box and cover plate for flush mounting and for connection to 120VAC electric power supply.

**OTHER POSSIBILITIES FOR BELOW INCLUDE ROLLER-MOUNTED MOTORS (NOT USUALLY SELECTED FOR UNIVERSITY WORK) AND AUTOMATIC CEILING CLOSURES**

- D. End-Mounted-Motor-Operated Screens Without Ceiling Closure: Units designed and fabricated for recessed, surface, or suspended installation, with bottom of case entirely or partially open under screen compartment, as standard with manufacturer, under screen compartment to allow raising and lowering of screen, closed with access door under motor compartment; and complying with the following requirements:
  - 1. Screen Case: Wood sides and top, with metal-lined motor compartment, factory primed and constructed as follows:
    - a. Provide single or double top as standard with manufacturer.

2. Motor: Instant reversing, gear drive motor of size and capacity recommended by screen manufacturer, with permanently lubricated ball bearings, automatic thermal overload protection, preset limit switches to automatically stop screen in "up" and "down" position, and positive stop action to prevent coating: mounted in motor compartment on right end of screen, unless otherwise indicated, and remotely controlled as indicated.
3. Screen: Mildew- and flame-resistant glass fiber fabric with vinyl-coated viewing surface complying with requirements indicated, with top edge mounted on, and securely fastened to, rigid metal roller supported by self-aligning bearings in brackets.

**INCLUDE DIMENSIONS BELOW IF NOT SHOWN ON DRAWING**

- a. Size of Viewing Surface: As indicated.

**MODIFY BELOW TO SUIT APPLICATION**

- E. Acceptable Manufacturers: Subject to compliance with requirements, provide products of one of the following:

"Series 800"; Bretford/Knox Mfg. Co.  
 "Series 900"; Bretford/Knox Mfg. Co.  
 "Senior Electrol"; Da-Lite Screen Co.  
 "Rollermatic"; Draper Shade & Screen Co.

**DELETE BELOW IF NO MANUALLY OPERATED UNITS**

**2.2 MANUALLY-OPERATED FRONT PROJECTION SCREENS**

- A. General: Provide manufacturer's standard units consisting of case, screen, mounting accessories and other components as required for a complete installation and complying with descriptive requirements indicated below:
- B. Spring-Roller-Operated Projection Screens: Units designed and fabricated for wall or ceiling installation and complying with the following requirements:
  1. Screen Case: Fabricated in one piece from not less than 22 gage steel with flat back design, vinyl-covered or baked-enamel finish, and end caps with integral roller brackets and furnished with universal mounting brackets in finish matching end caps to enable attachment to wall or ceiling.
  2. Screen: Mildew- and flame-resistant glass fiber fabric with vinyl coated viewing surface complying with requirements indicated below, with top edge mounted on, and securely anchored to, a 3 inch diameter rigid steel spring roller and bottom edge formed into a pocket holding a tubular metal slat, with ends of rod protected by plastic caps containing a screw-attachment saddle and pull.

**INCLUDE DIMENSIONS BELOW IF NOT SHOWN ON DRAWING**

3. Size of Viewing Surface: As indicated.
4. Type of Viewing Surface: Matte white with minimum gain characteristics complying with FS GG-S-00172D(1) for Type A screen surface; without black masking borders.

- a. Edge Treatment: Without black masking borders.
- b. Edge Treatment: With black masking borders.

***DELETE ABOVE OR BELOW TO SUIT PROJECT***

- 5. Type of Viewing Surface: Glass beaded viewing surface with minimum gain characteristics complying with FS GG-S-00172D(1) for Type C screen surface.
  - a. Edge Treatment: Without black masking borders.
  - b. Edge Treatment: With black masking borders.
- 6. Products: Subject to compliance with requirements, select one of the following:
  - a. "Series 500 Auditorium"; Bretford/Knox Manufacturing Co.
  - b. "Model C"; Da-Lite Screen co., Inc.
  - c. "Luma 2"; Draper Shade and Screen Co.

**PART 3 - EXECUTION**

**3.1 INSTALLATION**

- A. Install projection screen units and accessories at locations shown in accordance with Manufacturer's instructions. Install level, plumb, secure, and at proper height. Cooperate with other trades for securing projection screen units to finished surfaces. Repair or replace damaged units as directed.

**3.2 CLEANING, ADJUSTMENT AND PROTECTION**

***DELETE PARAGRAPH BELOW IF NO ELECTRICALLY OPERATED UNITS***

- A. Adjust electrically operated projection screens for proper operation. Adjust screen speed to comply with manufacturer's recommendations. Adjust screen extension for maximum exposure in unrolled condition.
- B. Protect installed units so that they will be in satisfactory operating condition, without damage, at completion of project.

**END OF SECTION 115213**