

University of North Dakota

## **DIVISION 11 - EQUIPMENT**

#### 11 1316 - LOADING DOCK SEALS AND SHELTERS

- A. Section Includes:
  - 1. Foam-pad dock seals.
  - 2. Inflatable dock seals.
  - 3. Frame-type dock shelters.
  - 4. Inflatable dock shelters.
  - 5. Transparent-strip door curtains.

### 11 3100 - RESIDENTIAL APPLIANCES

- A. Appliances shall be Energy Star rated.
- B. Include installation details, material descriptions, dimensions of individual components, and finishes for each appliance. Energy Star labeling
- C. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.
- D. Product Schedule: For appliances. [ Use same designations indicated on Drawings.]
- E. Operation and Maintenance Data: For each residential appliance to include in operation and maintenance manuals.
- F. Warranty

# 11 4000 - FOODSERVICE EQUIPMENT

- A. All equipment shall be Energy Star rated.
- B. Owner shall furnish equipment for installation by Contractor.
- C. Coordinate foodservice equipment layout and installation
  - 1. Include layout and installation of lighting fixtures, HVAC equipment, and fire-suppression system components.
  - 2. Indicate locations of foodservice equipment and connections to utilities.
  - 3. Key equipment using same designations as indicated on Drawings.
  - 4. Include plans and elevations; clearance requirements for equipment access and maintenance; details of equipment supports; and utility service characteristics.
  - 5. Include details of seismic bracing for equipment.
- D. Refer to Division 22 1006 Plumbing Specialties for information concerning food service establishments and the handling of FOG (Fats, Oils, and Grease).



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### 11 5213 - PROJECTION SCREENS

#### A. Section Includes:

- 1. Manually operated, front-projection screens.
- 2. Electrically operated, front-projection screens and controls.
- B. Show layouts and types of front-projection screens. Include the following:
  - 1. Drop lengths.
  - 2. Location of seams in viewing surfaces.
  - 3. Location of screen centerline relative to ends of screen case.
  - 4. Anchorage details, including connection to supporting structure for suspended units.
  - 5. Details of juncture of exposed surfaces with adjacent finishes.
  - 6. Location of wiring connections for electrically operated units.
  - 7. Wiring diagrams for electrically operated units.
  - 8. Accessories.
- C. Coordinate layout and installation of front-projection screens with adjacent construction, including ceiling suspension systems, light fixtures, HVAC equipment, fire-suppression system, and partitions.

#### 11 5313 – LABORATORY FUME HOODS

### A. Section Includes:

- 1. Bench-top laboratory fume hoods.
- 2. Floor-mounted laboratory fume hoods.
- 3. Piping and wiring within fume hoods for service fittings, light fixtures, fan switches, and other electrical devices included with fume hoods.
- 4. Fume hood base cabinets.
- 5. Fume hood base stands.
- 6. Work tops within fume hoods.
- 7. Laboratory sinks and cup sinks in fume hoods.
- 8. Water, laboratory gas, and electrical service fittings in fume hoods.

### B. Coordination

- 1. Coordinate layout and installation of framing and reinforcements for lateral support of fume hoods.
- 2. Coordinate installation of fume hoods with laboratory casework and other laboratory equipment.
- Show compliance with specified performance requirements for as-manufactured containment and static pressure loss, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency.

## C. Performance Requirements

- 1. Containment: Provide fume hoods that comply with ASHRAE 110.
- D. Chemical-Resistant Finish



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- 1. General: Prepare, treat, and finish welded assemblies after welding. Prepare, treat, and finish components that are to be assembled with mechanical fasteners before assembling. Prepare, treat, and finish concealed surfaces same as exposed surfaces.
- 2. Preparation: Clean steel surfaces, other than stainless steel, of mill scale, rust, oil, and other contaminants. After cleaning, apply a conversion coating suited to the organic coating to be applied over it.
- 3. Chemical-Resistant Finish: Immediately after cleaning and pretreating, apply fume hood manufacturer's standard two-coat, chemical-resistant, baked-on finish consisting of prime coat and thermosetting topcoat. Comply with coating manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils (0.05 mm).

# 11 8227 - WASTE COMPACTORS

A. Include rated capacities, operating characteristics, furnished specialties and accessories, and finishes.

**END OF DIVISION 11**