

B. Protection:

1. Protect work of other trades, whether or not to be painted, against damage by painting and finishing work.
2. Correct any damage by cleaning, repairing or replacing, and repainting, as acceptable to Contracting Officer.
3. Provide WET PAINT signs as required to protect newly-painted finishes.
4. After completion of painting operations, remove temporary protective wrapping provided by others for protection of their work.
5. At completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

3.06 EXTERIOR STANDARD ARCHITECTURAL OPAQUE AND TRANSPARENT FINISH COATINGS

A. General:

1. Following finish coatings schedule is based on products of Benjamin Moore to establish minimum quality of coatings.
2. Equal or better products of ICI Dulux or Sherwin Williams are acceptable when supporting technical data is submitted in compliance with requirements of Section 01600.
3. Provide primers and undercoat coatings produced by same manufacturer as finish coats.

B. Wood:

1. Opaque-Painted - Soft-Gloss Finish:
 - a. Surfaces: Simulated wood (PVC) trim.
 - b. System: 2 finish coats over primer coat.
 - c. Primer Coat: BM Moore's Latex Exterior Primer #102.
 - d. First and Second Finish Coats: BM MoorGlo Latex House & Trim Paint #096.

C. Ferrous Metal:

1. Opaque-Painted - Soft-Gloss Finish:
 - a. System: 2 finish coats over primer coat.
 - b. Primer Coat: BM IronClad Retardo Rust Inhibitive Paint #163.
 - c. First and Second Finish Coats: BM MoorGlo Latex House & Trim Paint #096.

- b. Coat exposed face and exposed edges with 3-coat process consisting of primer, ground coat, and color cover coat and concealed face with 2-coat process consisting of primer and ground coat.
 - c. Fuse cover and ground coats to steel at manufacturer's standard firing temperatures, min. 1200 deg. F(649 deg. C).
 2. Cover Coat: Provide manufacturer's standard light-colored special writing surface with gloss finish intended for use with liquid felt-tipped markers.
 3. Core: Provide manufacturer's standard 1/4 in. tempered hardboard core material.
 4. Backing Sheet: Provide manufacturer's standard 0.015 in. thick aluminum sheet backing.
 5. Laminating Adhesive: Provide manufacturer's standard moisture-resistant thermoplastic-type adhesive.
- B. Tackboards:
 1. Plastic Impregnated Cork:
 - a. Provide seamless sheet, 1/4 in. thick ground natural cork compressed with resinous binder with washable vinyl finish and integral color throughout, laminated to burlap backing.
 - b. Provide color and texture as Scheduled or as selected from manufacturer's standards.
- C. Accessories:
 1. Metal Trim and Accessories:
 - a. Fabricate frames and trim min. 0.062 in. thick aluminum alloy, size and shape as indicated to suit type of installation.
 - b. Provide straight, single-length units wherever possible; keep joints to minimum.
 - c. Miter corners to neat, hairline closure.
 - d. Where size of boards or other conditions exist requiring support in addition to normal trim, provide structural supports or modify trim as indicated or as selected by Contracting Officer from manufacturer's standard structural support accessories to suit condition indicated.
 - e. Field-Applied Trim: Provide manufacturer's standard snap-on trim, with no visible screws or exposed joints.
 2. Chalktray: Furnish manufacturer's standard continuous box-type aluminum chalktray with slanted front and cast aluminum end closures for each markerboard.

2. Set units to provide support and to resist lateral impact.

D. Accessories: Mount accessories to partition units in accordance with manufacturer's instructions.

3.02 ADJUSTING AND CLEANING

A. Hardware Adjustment:

1. Adjust and lubricate hardware for proper operation.
2. Set hinges on in-swinging doors to hold open approximately 30 deg. from closed position when unlatched.
3. Set hinges on outswinging doors and entrance swing doors to return to fully closed position.

B. Clean exposed surfaces of partition systems using materials and methods recommended by manufacturer, and provide protection as necessary to prevent damage during remainder of construction period.

END OF SECTION

4. Provide message list for each sign required, including large-scale wording details and lettering layout.
 5. For signs supported by or anchored to permanent construction, provide setting drawings, templates, and directions for installation of anchor bolts and other anchors to be installed as unit of flagpole in other Sections.
 6. Furnish full-size spacing templates for individually-mounted dimensional letters and numbers.
 7. Furnish full-size rubbing for metal plaques.
- C. Samples for Verification: Provide for color, pattern, and texture selected and compliance with requirements indicated.
1. Cast Acrylic Sheet:
 - a. Provide min. 8-1/2 in. x 11 in. sample panel for each material indicated.
 - b. Include panel for each color, texture, and pattern required.
 - c. On each panel, include representative sample of graphic image process required, showing graphic style, and colors and finishes of letters, numbers, and other graphic devices.
 2. Aluminum:
 - a. Samples of each finish type and color, on 6 in. long sections of extrusions and min. 4 in. sq. sheet or plate.
 - b. Where finishes involve normal color and texture variations, include sets showing full range of expected variations.
 3. Dimensional Letters: Provide full-size representative samples of each dimensional letter type required, showing letter style, color, and material finish and method of attachment.

1.04 QUALITY ASSURANCE

- A. Single-Source Responsibility: For each separate type of sign required, obtain signs from one source from single manufacturer.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Panel Signs: ABC Bulletin & Directory of Nelson Harkins Industries, Andco Industries Corp., Apco Graphics,

8. Finishing:
 - a. Chemically pretreat metal with degreasing and phosphatizing process.
 - b. Apply baked-on enamel finish to all surfaces, exposed and concealed, except plates and nonferrous metal.
 9. Color:
 - a. Provide locker units in color selected by Contracting Officer from manufacturer's standards.
 - b. Concealed parts may be manufacturer's standard neutral color.
- B. Mesh Lockers:
1. Body:
 - a. Fabricate top and bottom of min. 16 ga. steel sheet.
 - b. Fabricate back of min. 18 ga. steel sheet.
 - c. Construct sides and intermediate partitions of expanded metal welded to steel without hemming.
 - d. Provide 16 ga. perforated steel shelf in single-tier lockers.
 2. Door: Manufacturer's standard of either expanded metal in steel frame or perforated steel sheet with flanged edges, min. 16 ga. for multitier units and 14 ga. for other units.
 3. Reinforcing: Provide extra bracing or reinforcing on inside of doors over 15 in. wide.
 4. Hinges:
 - a. Heavy-duty, min. 0.050 in. thick steel, full loop, 5-knuckle, tight pin, 2 in. high.
 - b. Weld to inside of frame and secure to door with min. 2 factory-installed fasteners that are completely concealed and tamperproof when door is closed.
 - c. Provide min. 3 hinges for each door over 42 in. high; min. 2 hinges for doors 42 in. high or less, or continuous piano hinge at top for multitier units.
 5. Latching: Provide mechanism as follows.
 - a. Single, Double, and Triple-Tier Units: Three-point latch device, engaging frame at top, bottom, and jamb, with chromium-plated turn handle having provisions for padlock.
 - b. Multi-Tier Units: One-point latching device with lock clip for locking with padlock.

reinforcing plates where necessary to avoid metal distortion, using concealed fasteners.

- C. Install trim, metal base, sloping top units, and metal filler panels and end panels, using concealed fasteners.
- D. Provide flush, hairline joints against adjacent surfaces.

3.02 ADJUST AND CLEAN

- A. Adjust doors and latches to operate easily without binding.
- B. Verify integral locking devices are operating properly.
- C. Touch-up marred finishes, but replace units that cannot be restored to factory-finished appearance.
- D. Use only materials and procedures recommended or furnished by locker manufacturer.

END OF SECTION

constant-force-contact seal exerting uniform constant pressure on track when extended.

4. Horizontal Bottom Seals:
 - a. Automatically-Operated: Extension and retraction of bottom seal automatically-operated by movement of partition, with operating range min. 1-1/2 in. operating clearance between retracted seal and floor finish.

C. Finish Facing:

1. General: Provide finish facings that comply with indicated fire-test-response characteristics and that are factory-applied to operable-panel partitions with appropriate backing, using mildew-resistant nonstaining adhesive as recommended by facing manufacturer's written instructions.
2. Apply one-piece, seamless facings free from air bubbles, wrinkles, blisters, and other defects, with invisible seams complying with shop drawings for location, and with no gaps or overlaps.
3. Do not use horizontal butted edges.
4. Tightly-secure and conceal raw and selvage edges of facing for finished appearance.
5. Where facings with directional or repeating patterns or directional weave are indicated, mark facing top and attach facing in same direction.
6. Vinyl-Coated Fabric Wallcovering:
 - a. Manufacturer's standard mildew-resistant, washable, vinyl-coated fabric wallcovering; complying with CFFA-W-101-B for Type indicated; Class A.
 - b. Antimicrobial Treatment: Additives capable of inhibiting growth of microbes including, but not limited to, Staphylococcus aureus, Escherichia coli, and Aspergillus niger.

D. Suspension Tracks:

1. Steel or aluminum with adjustable steel hanger rods for overhead support, designed for type of operation, size, and weight of operable-panel partition indicated.
2. Size track to support partition operation and storage without damage to suspension system, operable-panel partitions, or adjacent construction.
3. Limit track deflection to max. 0.10 in. between bracket supports.

SECTION 11140

VEHICLE SERVICE EQUIPMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes: Work of this Section consists of installing all materials furnished under this Section, including all equipment, labor, services, and incidental items required to complete work as shown on Drawings and specified in this Section.

- 1. Vehicle Washer System, consisting of:

- a. Main Unit; prewired, preplumbed, fully-tested hot water, high-pressure, fully automatic LP heated stationary vehicle pressure washer, 2 units required and located on Mezzanine Space 201.
- b. Wash Station; two stations consisting of remote control box to control main unit for pump, burner, and chemical selection to wands, with wall-mounted 30 gal. drums/reservoirs for each wand.
- c. Variable Pressure Wands; two wands connected to insulated trigger gun having swivel swedge fitting to connect to safety hose guard and high pressure hose from each wash station; complete with two wand holders.
- d. Detergent Supply; two 55 gallon detergent supply drums remotely connected to supply main unit located in Space 154 Wash Bay/Equipment Room.

- 2. Vehicle paint booth.

- 3. Vehicle lifts with safety devices, four-post fully-adjustable assembly.

- 4. Include all necessary equipment, materials, and service for complete assembly and erection of equipment ready for operation.

- B. Related Sections:

- 1. 03300, Cast-In-Place Concrete; for coordinating placement of anchors.

- b. Natural draft electronic ignition to provide 150 deg. F temperature rise.
 - c. Supply with AGA-certified vertical draft hood sized to fit flue collar.
 - d. Provide manually-operated pilot shutoff T-valve to independently shut off gas supply to pilot.
 - e. Fit with steel tray to prevent particles from burner and coil assembly falling on floor.
5. Heating Coil:
 - a. Schedule No. A53 cold-formed duracoil, 0.750 in. I.D. and 0.854 o.d.; 360 ft. overall length, welded to ASME standards and insulated with stainless steel backed 3 in. thick 6 lb. density fiber ceramic blanket.
 - b. Protect heating coil with safety high-pressure relief valve set at 3600 psi.
 6. Hose: 50 ft. x 3/8 in. insulated double steel braid-type meeting or exceeding SAE100R2 performance with sedge and strain relief collars, rated at 4500 psi at 275 deg. F. with Foster ST Series Quick Coupler with stainless steel support balls and safety lock.
 7. Trigger Gun:
 - a. Insulated pistol-type safety shut-off gun rated at 10 gpm, 3000 psi and 300 deg. F.
 - b. Fabricate from fiberglass-reinforced polyester with brass and stainless steel valves and seats.
 8. Nozzle:
 - a. Color-coded identifiable high-pressure nozzle for single gun operation supplied in 0, 15, 25, and 40 deg. flat spray pattern.
 - b. Through hardened 402 stainless steel with interlock coupler nipple of annealed 303 stainless steel with 80 Rockwell hardness rating.
 9. Pressure Wands:
 - a. 42 in. angulated wand with built-in variable pressure control and remote chemical control valve.
 - b. Provide insulated grab handle and wand for operator protection.
 - c. Chemical Injection: Designed to use same chemicals scheduled for use in Section 11140 equipment.
 10. Controls/Gages:
 - a. Hour Meter: Monitor usage for maintenance scheduling to record time in use for each function and total time in use for all

2. Safety Devices:
 - a. Infinite position mechanical locking systems, always operational and engaged at all four posts.
 - b. Single-position, two-handed safety release.
 - c. Triple-redundant safety system of mechanical, hydraulic, and electrical safety devices.
3. Operational Performance:
 - a. Capacity: Min. 38,000 lb.
 - b. Lifting Speed: 120 seconds.
 - c. Motor Rating: 7.5 HP, 208/230V, 3-phase.
 - d. Lifting Height: 6 ft.
 - e. Platform Height - Full Stroke: 6 ft.-3-1/2 in.
4. Size:
 - a. Track Width: 24 in.
 - b. Track Length: 30 ft.
 - c. Width: 14 ft.-5 in.
 - d. Overall Length: 35 ft.-7 in.
5. Manufacturer: Mohawk Lifts, Rotary Lifts.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Gas Supply:
 1. Ensure that junction has been installed in gas line adjacent to and upstream from control manifold and downstream from manual main shut-off valve.
 2. Ensure that 1/8 in. N.P.T. plugged tapping accessible for test gage connection has been installed upstream of gas supply connection for purpose of determining gas supply pressure to burner and to prevent damage to gas valve.
 3. Ensure that manual gas shut off valve has been installed in gas supply line within 6 ft. of main unit, external to main unit.
- B. Venting:
 1. Ensure that flue pipe is same size as main unit stack complete with downdraft diverter.
 2. Ensure that draft diverter on the flue pipe has been installed min. 12 in. above heating coil.

3.02 INSTALLATION

- A. Install equipment in accordance with manufacturers' shop drawings.

SECTION 11160

LOADING DOCK EQUIPMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes: Work of this Section consists of installing all materials furnished under this Section, including all equipment, labor, services, and incidental items required to complete work as shown on Drawings and specified in this Section.
 - 1. Laminated tread bumpers.
 - 2. Hydraulic dock levelers.
 - 3. Mechanical dock levelers.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's product data and installation instructions for each type of loading dock equipment, including installation details.
- B. Shop Drawings:
 - 1. Dock Levelers:
 - a. Submit shop drawings for fabrication and erection of dock levelers.
 - b. Include plans, elevations, and large scale details.
 - c. Show anchorages and accessory items.
 - d. Provide location template drawings for items supported or anchored to permanent construction.
 - e. Furnish roughing-in drawings for electrical service well in advance of concrete work.
- C. Test Reports: Submit certified test reports showing compliance of dock levelers with requirements of ANSI MH14.1 for determining rated capacity of magnitude indicated.

- D. Maintenance Data: Submit manufacturer's maintenance and service data, including, address and telephone number of nearest authorized service representative.

1.04 QUALITY ASSURANCE

A. Reference Standards:

1. Dock Leveler Standard: Comply with applicable requirements of ANSI MH14.1 for construction and operating of dock levelers (fixed dockboards), except as otherwise indicated.
2. Hydraulic Dock Lift Standards: Comply with applicable requirements of CS 202 for construction and operation of hydraulic dock lifts, except as otherwise indicated.

- B. Single-Source Responsibility: Provide dock levelers as complete units produced by single manufacturer, including necessary accessories, fittings, and anchorages.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Bumpers: Blue Giant Equipment Corp., Chalfant Sewing Fabricators Inc., Durable Mat Co., Equipment Company of America, Kelley Company Inc., Pawling Corp., Pioneer Manufacturing Inc., Serco Engineering Corp., Steel-flexx Corp.
- B. Hydraulic Dock Lifts: Advance Lifts Inc., Blue Giant Equipment Co., Equipment Company of America, Southworth Inc.
- C. Dock Levelers: Blue Giant Equipment Corp., DLM Dock Leveler Manufacturing, Flexion Inc., Kelley Company Inc., Pioneer Manufacturing Inc., Rite-Hite Corp., Serco Engineering Corp.

2.02 MATERIALS

A. Dock Bumpers:

1. Laminated Tread-Type Units:
 - a. Provide laminated tread dock bumper units of size indicated, fabricated from multiple plies cut from fabric-reinforced rubber truck tires to uniform thickness of 4-1/2 in.

- with lip's automatic retraction upon truck's subsequent departure.
 - b. Length of Lip Extension: Provide lip extension min. 24 in. from ramp edge and min. 12 in. in front of dock bumpers.
 - c. Automatic Ramp Return: Provide for automatic return of unloaded ramp, from raised or lowered positions to stored position, level with platform, upon truck's departure.
8. Hydraulic Operating System:
- a. Provide electric hydraulic raising and hydraulic lowering of ramp, controlled from remotely located pushbutton station.
 - b. Equip leveler with packaged unit including unitized, totally enclosed, nonventilated electric motor, pump, manifold reservoir, and valve assembly of proper size, type, and operation for capacity of lever indicated.
 - c. Include means of lowering ramp below platform level with lip retracted behind bumpers.
 - d. Provide hydraulic velocity fuse connected to main hydraulic cylinder to limit loaded ramps free-fall to max. 3 in.
9. Mechanical Operating System:
- a. Provide spring operated raising and walk-down lowering of unloaded ramp.
 - b. Equip units with upward-biased spring counterbalancing mechanism controlled by hold-down device.
 - c. Raise ramp to top limit of operating range by operating recessed control handle in ramp to disengage hold-down device.
 - d. Lower ramp below platform level with lip retracted by operating auxiliary recessed control handle to release support legs.
10. Electrical Requirements:
- a. Coordinate wiring requirements and current characteristics with building electrical system.
 - b. Refer to Division 16 Sections for rough electrical work for final connections to equipment and controls of this Section.
11. Remote Control Station:
- a. Provide single button station of constant-pressure-type.
 - b. Holding button depressed causes ramp to raise; releasing button allows ramp to lower at controlled rate.

