SECTION 14 91 00

FACILITY CHUTES, TRASH AND LAUNDRY

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\*\* NOTE TO SPECIFIER \*\* CHUTES International; Chutes, Compactors and Debris Removal Systems.  
This section is based on the products of CHUTES International, which is located at:  
33 Industrial Park Dr.  
Waldorf, MD 20602  
Toll Free Tel: 800-88-CHUTE  
Tel: 240-448-5000  
Fax: 301-753-4108  
Email: [request info (heidi.wood@chutes.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=CHUTES+International&coid=31437&rep=&fax=301-753-4108&message=RE:%20Spec%20Question%20(14560chu):%20%20&mf=)  
Web: <http://www.chutes.com>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos31/arc31437.html) ] for additional information.  
CHUTES International has pioneered and revolutionized the construction debris chute industry since 1989. We first introduced our patented, heavy-duty steel debris chute to fill the need for safe, time-saving and cost efficient debris removal. Then, in response to industry demand, we introduced our own DURACHUTE, a6 inch (914 mm) HDPE plastic debris chute system.  
More recently, CHUTES introduced its own flat chute line, DURAFLAT. The system is designed with the roofer in mind.  
In 2004, CHUTES introduced its own line of internal trash & linen chutes, to accompany its compactor, DuraPak line, postal specialties service department and lockers.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Trash chutes.
    2. Laundry/Linen chutes.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 40 00 - Cold Formed Metal Framing. For supplemental support framing for chutes.
    2. Section 11 82 26 - Trash Compactors. For connections to Trash Compactors.
    3. Division 21 00 00 - Sections for connections to Sprinklers.
    4. Division 22 00 00 - Sections for connecting to Disinfecting and Sanitizing Unit.
    5. Division 26 00 00 - Sections for electrical connections to Electric Interlocks.
    6. Division 28 00 00 - Sections for Smoke Detectors.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not required by the text of the edited section.

* + 1. National Fire Protection Association (NFPA):
       1. NFPA Code 82 - Standard on Incinerators and Waste and Linen Handling Systems and Equipment.
       2. NFPA Code 70 - National Electrical Code.
    2. ASTM International (ASTM):
       1. ASTM A 240 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
    3. American Society of Mechanical Engineers (ASME):
       1. ASME - SA240 - American Society of Mechanical Engineers Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels.
    4. Underwriters Laboratories (UL):
       1. Labeling for Certified, Listed, Classified and Verified Wire and Cable Products Covered Under UL Certification and Follow-Up Services.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
        1. General Contractor to furnish Subcontractor approved shop drawings and plan view drawings of trash room.
     2. Product Data: Manufacturer's product specifications, standard details, and recommendations for project conditions, indicate selected sizes and installation details specific to the project.
        1. Data sheets on each product to be used.
        2. Preparation instructions and recommendations for project conditions.
        3. Storage and handling requirements and recommendations.
        4. Installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
    2. Shop Drawings:
       1. Indicate chute location.
       2. Specific project conditions.
       3. Interface with adjacent construction.
       4. Dimensions and clearances required.
       5. Products required for installation of the chute, but not supplied by manufacturer.

\*\* NOTE TO SPECIFIER \*\* Delete the following if Electric or Pneumatic Interlocks are not required.

* + - 1. Wiring Diagrams: Power, signal, and control wiring.
      2. Pneumatic Diagrams: Power, regulator flow and control tubing.
    1. Close-out Submittals:
       1. Manufacturer's printed operation manual.
       2. Executed warranty as listed in this section.
  1. QUALITY ASSURANCE

\*\* NOTE TO SPECIFIER \*\* Recommended qualifications below. Delete subparagraphs as needed.

* + 1. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of five (5) years documented experience manufacturing products of the same type as listed in this section.
    2. Installer Qualifications: All products listed in this section are to be approved by the manufacturer and installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified.
    3. Source Limitations: Provide each type of product from a single manufacturing source in the United States to ensure uniformity.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. COORDINATION
     1. Coordinate the work of this section with the following:
        1. Installation of electrical circuits with disconnects required to be installed by others to include 1 each: 120VAC, 20 Amp 1-Phase, 60 H Circuit. Local disconnect box to be NEMA 13.
        2. Water supply and valves to fire sprinkler heads and flushing spray heads.
        3. ADA - Braille signage to be installed by others, if required.
  3. DELIVERY, STORAGE, AND HANDLING
     1. Store in manufacturer's unopened packaging until ready for installation and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  4. PROJECT CONDITIONS
     1. Maintain environmental temperature, humidity, and ventilation within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  5. WARRANTY
     1. At project closeout, provide the Owner or Owners Representative with an executed copy of the manufacturer's standard limited warranty against manufacturing defects and workmanship, outlining its terms, conditions, and exclusions from coverage.
        1. Duration: One year from date of shipment.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: CHUTES International, which is located at: 33 Industrial Park Dr.; Waldorf, MD 20602; Toll Free Tel: 800-88-CHUTE; Tel: 240-448-5000; Fax: 301-753-4108; Email: [request info (heidi.wood@chutes.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=CHUTES+International&coid=31437&rep=&fax=301-753-4108&message=RE:%20Spec%20Question%20(14560chu):%20%20&mf=); Web: <http://www.chutes.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. TRASH CHUTES
     1. Performance Requirements:
        1. Fire Rated Door Assemblies:
           1. UL Labeled Intake Doors and Access Doors:

Mininum1 to 1-1/2 hour fire rated with 30 minute temperature rise of 250 degrees F (140 degrees C) maximum.

* + - 1. Standard: Chutes to comply with NFPA 82.

\*\* NOTE TO SPECIFIER \*\* Delete the following subparagraph if Electrical Interlocks are not required.

* + - 1. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
    1. Trash Chute Material and Size:

\*\* NOTE TO SPECIFIER \*\* In subparagraph below, select chute metal. Aluminumized steel is standard. Delete metal and thickness options not required. 16 gauge is standard.

* + - 1. Metal: Aluminum-coated; ASTM A 463/A 463M, Type 1 with not less than T1-40 (T1M-120) coating. Cold-rolled, commercial steel sheet.
         1. Metal Thickness: 0.060 inch (1.52 mm); 16 gauge.
         2. Metal Thickness: 0.080 inch (2.03 mm); 14 gauge.
      2. Metal: 430 ROIF Stainless Steel; ASTM A240/ASME SA240. Cold-rolled, commercial steel sheet.
         1. Metal Thickness: 0.060 inch (1.52 mm); 16 gauge.
         2. Metal Thickness: 0.080 inch (2.03 mm); 14 gauge.
      3. Metal: 304 Stainless Steel; ASTM A 240. Cold-rolled, commercial steel sheet.
         1. Metal Thickness: 0.060 inch (1.52 mm); 16 gauge.
         2. Metal Thickness: 0.080 inch (2.03 mm); 14 gauge.

\*\* NOTE TO SPECIFIER \*\* Delete size options not required. 24 inch diameter is standard.

* + - 1. Size: 24 inch (610 mm) diameter.
      2. Size: 30 inch (762 mm) diameter.
      3. Size: 36 inch (914 mm) diameter.
    1. Fire Sprinklers: Manufacturer's standard NPS 1/2 inch (DN 13) fire sprinklers ready for piping connections. Furnished only, Installed by others.
    2. Intake Door Assemblies: Stainless steel front and back, noiseless, self-closing with positive latch and ADA compliant lever handle; as required to provide fire-protection and temperature rise ratings indicated.
       1. Steel Frame: Suitable for enclosing chase construction.
          1. Finish: Paint. Corrosion-resistant, industrial grade enamel.
       2. Door Type: Bottom hinged, hopper type, typically used in public access applications.
       3. Trash Deflector: Stainless Steel intake to protect bottom of intake door from debris build-up.
       4. Size: Manufacturer's standard size for door type, chute type, and diameter indicated.
       5. Finish: Stainless steel, front and back, with 430 ROIF finish.

\*\* NOTE TO SPECIFIER \*\* Delete the two following paragraphs if Pneumatic doors are selected.

* + - 1. Handles and Locks: ADA compliant lever handle, cylinder locks with 2 keys. All locks keyed alike.
      2. Electric Interlock System: Is energized by opening one intake door. All other doors remain locked when system is energized.
         1. Control System: Manual with key operated switch that locks doors of chute during shut-down hours and/or service operations.

Manual Override Switch: To bypass interlock system.

\*\* NOTE TO SPECIFIER \*\* Delete the three following paragraphs if Pneumatic Intake Door is not required.

* + - 1. ADA Compliant bottom-hinged, self-closing, positive latching, pneumatically operated chute intake doors with wave-to-open technology designed to preclude the need to grasp, twist or pinch the control mechanism in order to operate the intake doors.
      2. Pneumatic Intake Door:
         1. Opens to Full-Open position and stays open for 10 seconds or other selected time.
         2. Doors then closes automatically releasing the pneumatic interlock valve.
         3. Air Regulator / Manual Dump Valve Control System: To de-energize chute intake doors during shut-down hours and/or service operations.
         4. Manual Override Switch: To bypass interlock system.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph below if no Pneumatic Interlocks.

* + - 1. Pneumatic Interlock System: Energized by opening one intake door.
         1. Interlock valve shuts off air pressure to the remaining doors automatically locking them out until the door in use closes.
    1. Discharge Assemblies: Provide fire protection ratings indicated. Equipped with fusible links that cause discharge to close in the event of a fire.

\*\* NOTE TO SPECIFIER \*\* Delete direct vertical discharge option not required. Accordion damper assembly is recommended.

* + - 1. Direct Vertical Discharge for Accordion Damper Assembly:
         1. One Time Use: UL labeled; interlocking type blades held open by fusible link assembly for automatic closing with heat rising above 165 degrees F (74 degrees C).
      2. Direct Vertical Discharge for Rolling Inclined Door:
         1. One Time Use: Held open by fusible link assembly for automatic closing with heat rising above 165 degrees F (74 degrees C)
         2. Not UL Labeled. Not intended to use as a chute shut off.

\*\* NOTE TO SPECIFIER \*\* Delete optional accessories not required.

* + 1. Optional Door Accessories:

\*\* NOTE TO SPECIFIER \*\* Only available with electric and pneumatic interlock systems. Delete if not required.

* + - 1. Electric Interlock System: Energized by opening one intake door. All other doors remain locked when system is energized. Wave controlled with handles and locks.
      2. Pneumatic Interlock System: Energized by opening one intake door. Interlock valve shuts off air pressure to remaining doors, locking them out until the door in use closes.
         1. Chute Intake Doors: ADA compliant bottom-hinged, self-closing, positive latching, pneumatically operated, with push button opening mechanism.

No need to grasp, twist or pinch the control mechanism to operate intake door.

Opens to NFPA approved position and remains open for 10 seconds or other programmed time.

Door then closes automatically releasing pneumatic interlock valve.

* + - * 1. Air Regulator / Manual Dump Valve Control System: To de-energize chute intake doors during maintenance.

Manual Override Switch: To bypass interlock system.

Wave controlled, no handles.

Air compressor powered pneumatic system.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Heat and Smoke Detector connection.

* + - 1. Heat Sensor and Smoke Detector Connection: Electro Thermal Fusible Link and wire connection at Manual Control Box to lock out chute doors.
         1. Heat Sensor: Located outside discharge door.
         2. Contact Smoke Detector: 24 to 32 VDC supplied by others. Manufacturer provides connection.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Interlock Control System.

* + - 1. Manual Control System: Key operated switch that locks chute doors during maintenance.
         1. Manual Override Switch: To bypass interlock system.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Smart System.

* + - 1. Centralized Smart System: With touch screen or remote monitoring of chute doors.
         1. Chute Clog Detection: Consists of implemented systems or methods of addressing obstructions or blockages within chute.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Disinfecting and Sanitizing Unit.

* + - 1. Disinfecting and Sanitizing Unit:
         1. Spray head: NPS 3/4 inch (DN 19) located in chute above highest intake door.
         2. Tank Size: 1 gallon. (3.8 L).
         3. Adjustable Proportioning Valve with Bypass: For manual control of sanitizing and flushing operation.
         4. Hot or cold water piping connection.
         5. Access for head and piping maintenance.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Redhat Solenoid.

* + - * 1. Redhat Solenoid: Operates Disinfection and Sanitizing Unit from Discharge Room. Requires separate wiring than interlocks. Connections by others.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Access Door Assembly as part of Disinfecting and Sanitizing Unit.

* + - * 1. Access Door Assembly: Stainless steel front and back. Finish: 430 ROIF.

ADA Compliant Lever Handle: Noiseless, self-closing with positive latch.

Required to meet fire-protection and temperature rise ratings indicated.

Steel Frame: Suitable for enclosing chase construction.

Finish: Paint. Corrosion-resistant industrial grade enamel.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Rubber Sheet Baffles.

* + - 1. Intake Door Baffles: Rubber, 1/8 inch (3 mm) thick. Minimizes back draft when door is opened.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Sounds Dampening.

* + - 1. Sound Dampening: Manufacturer's factory applied sound deadening coating on exterior of chute from discharge level to top of last intake.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Isolator Pads.

* + - 1. Isolator Pad: 1/4 inch (6 mm) top and bottom waffle design.
         1. Material: Neoprene. Oil resistant, with 3/8 inch (9 mm) close grained cork core.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraph below if no Odor Buttler.

* + - 1. Odor Buttler Compact Vaporizer Systems: Small-scale dry vaporized odor control system for control of odors. 100 percent natural plant extract essential oil concentrate, no water to be added. See manufacturer for full specification.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. LINEN/LAUNDRY CHUTES
     1. Performance Requirements:
        1. Fire Rated Door Assemblies:
           1. UL Labeled Intake Doors and Access Doors:

Minimum 1-1/2 hour fire rated with 30 minute temperature rise of 250 degrees F (140 degrees C) maximum.

* + - 1. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
    1. Linen Chute Material and Size:

\*\* NOTE TO SPECIFIER \*\* Delete metal and thickness options not required. Aluminum coated steel is standard. Delete metal thickness options not required. 16 gauge is standard.

* + - 1. Metal: Aluminum-coated; ASTM A 463/A 463M, Type 1 with not less than T1-40 (T1M-120) coating. Cold-rolled, commercial steel sheet.
         1. Metal Thickness: 0.060 inch (1.52 mm); 16 gauge.
         2. Metal Thickness: 0.080 inch (2.03 mm); 14 gauge.
      2. Metal: 430 ROIF Stainless Steel; ASTM A240/ASME SA240. Cold-rolled, commercial steel sheet.
         1. Metal Thickness: 0.060 inch (1.52 mm); 16 gauge.
         2. Metal Thickness: 0.080 inch (2.03 mm); 14 gauge.
      3. Metal: 304 Stainless Steel; ASTM A 240. Cold-rolled, commercial steel sheet.
         1. Metal Thickness: 0.060 inch (1.52 mm); 16 gauge.
         2. Metal Thickness: 0.080 inch (2.03 mm); 14 gauge.

\*\* NOTE TO SPECIFIER \*\* Delete size options not required. 24 inch diameter is standard.

* + - 1. Size: 24 inch (610 mm) diameter.
      2. Size: 30 inch (762 mm) diameter.
      3. Size: 36 inch (914 mm) diameter.
    1. Fire Sprinklers: Manufacturer's NPS 1/2 inch (DN 13) fire sprinklers ready for piping connections. Furnished only, Installed by others.
    2. Intake Door Assemblies: Stainless steel front and back. Noiseless, self-closing with positive latch. ADA compliant lever handle as required to provide fire-protection and temperature rise ratings indicated.
       1. Steel Frame: Suitable for enclosing chase construction.
          1. Finish: Paint. Corrosion-resistant, industrial grade enamel.

\*\* NOTE TO SPECIFIER \*\* Delete door type not required.

* + - 1. Door Type: Right side hinged, not for public access applications.
      2. Door Type: Left side hinged, not for public access applications.
      3. Size: Manufacturer's standard size for door type, chute type, and diameter indicated.
      4. Finish: Stainless steel No. 3 finish.
    1. Discharge Assemblies: Required to provide fire protection ratings indicated.
       1. Fusible Links: Cause discharge to close in event of a fire.

\*\* NOTE TO SPECIFIER \*\* In subparagraph below, choose discharge door type (and size, if applicable). Hopper damper assembly is recommended.

* + - 1. Hopper Discharge Construction: Same material as the chute.
         1. Adjustable Pedestal Support: 2 inch (51 mm) diameter.
         2. Frame Support: Two-legged frame for chutes 24 inches (610 mm) or 28 inches (711 mm) in diameter
         3. Frame Support: Four legged frame for chutes that are 30 inches (762 mm) or 36 inches (914 mm) in diameter.
         4. Floor frames at the lowest level, above the discharge room, will have a thicker density of 1-1/2 inches x 1/4 Inch (38 mm x 6 mm) for chutes 30 inches (762 mm) plus, and/or 12 stories and higher.
      2. Hopper Discharge Door: "UL" labeled, Top-hinged and spring counter-balanced.
         1. Fusible Link: For closing with heat rising above 165 degrees F (74 degrees C).

\*\* NOTE TO SPECIFIER \*\* Delete size options not required.

* + - * 1. Size: 24 x 30 inches (610 x 762 mm).
        2. Size: 28 x 36 inches (711 x 914 mm).
        3. Size: 30 x 36 inches (762 x 914 mm).
        4. Size: 36 x 48 inches (914 x 1219 mm).
      1. Accordion Damper Assembly: UL labeled, interlocking type blades, held open by fusible link assembly. Automatic closing with heat rising above 165 degrees F (74 degrees C).

\*\* NOTE TO SPECIFIER \*\* Delete optional accessories not required.

* + 1. Door Accessories: Optional.

\*\* NOTE TO SPECIFIER \*\* Only available with electric interlock systems. Delete first subparagraph if no Heat and Smoke Detector is required.

* + - 1. Heat Sensor and Smoke Detector Connection:
         1. Electro Thermal Fusible Link and Wire Connection: Manual Control Box to lock out chute doors.
         2. Heat Sensor: Located outside discharge door.
         3. Contact Smoke Detector: 24 to 32 VDC supplied by others.

Manufacturer provides connection only.

\*\* NOTE TO SPECIFIER \*\* Delete the two following if no Electric Interlock Intake Door.

* + - 1. Handles and Locks: ADA compliant lever handle, cylinder locks with 2 keys. All locks keyed alike.
      2. Electric Interlock System: Energized by opening one intake door.
         1. All other doors remain locked when system is energized.

\*\* NOTE TO SPECIFIER \*\* Delete if Disinfecting and Sanitizing Unit is not required.

* + - 1. Disinfecting and Sanitizing Unit:
         1. Spray head: NPS 3/4 inch (DN 19) located in chute above highest intake door. Tank Size: 1 gallon. (3.8 L).
         2. Adjustable Proportioning Valve with Bypass: For manual control of sanitizing and flushing operation.
         3. Hot or cold water piping connection.
         4. Access for head and piping maintenance.
         5. Access Door Assembly: Stainless steel front and back. Finish: 430 ROIF.

ADA Compliant Lever Handle: Noiseless, self-closing with positive latch.

Required to meet fire-protection and temperature rise ratings indicated.

Steel Frame: Suitable for enclosing chase construction.

Finish: Paint. Corrosion-resistant industrial grade enamel.

\*\* NOTE TO SPECIFIER \*\* Delete the two following if no Control System.

* + - 1. Manual Control System: Key operated switch that locks chute doors during maintenance,
         1. Manual Override Switch: To bypass interlock system.

\*\* NOTE TO SPECIFIER \*\* Delete the two following if no Isolator Pads.

* + - 1. Isolator Pad: 1/4 inch (6 mm) top and bottom waffle design.
         1. Material: Neoprene, oil resistant, with 3/8 inch (9 mm) close grained cork core.

\*\* NOTE TO SPECIFIER \*\* Fabrication article applies to trash and laundry chutes.

* 1. FABRlCATlON
     1. Chute Fabrication:
        1. Trash Chute Sections: Factory assembled.
           1. Sections are to sleeve inside the sections below.
           2. No bolts, clips, or other projections are to be inside the chute to snag the flow of material.
        2. Vertical Seams: Fully welded.
        3. Pre-Positioned Support Clips: Assure proper intake levels.
        4. Expansion Joints: In the chute between support joints.
        5. Discharge Offsets: 12 gauge material at area of impact. where required.
           1. No 'spiral' manufactured sections within chute will be allowed.
        6. Vent: Full diameter Aluminum .080 inches (2.03 mm) 12 gauge extending 3 ft (914 mm) per NFPA Code 82; 2009, above roof penetration with aluminum hinged metal safety cap.
        7. Standard Floor Frames: Steel angle. 1-1/2 x 1-1/2 x 3/16 inches (38 x 38 x 5 mm).
           1. Finish: Paint. Corrosion resistant, industrial grade enamel.
        8. Fire Sprinklers: 1/2 inch NPT sprinkler and 3/4 inch NPT flushing head at top intake.
           1. Additional 1/2 inch sprinkler heads at alternate intake floors and at intake above discharge floor as required by NFPA Code 82.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly constructed and prepared.
      2. Verify slab penetrations are properly sized, equaling the diameter of chute plus 4 inches, minimum, aligned, plumb and clear of any obstructions at chute location.
      3. Confirm floor heights and other applicable dimensions are in accordance with approved submittals.
      4. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Install in accordance with manufacturer's written installation instructions, approved submittals, and in proper relationship with adjacent construction.
      2. Supply control line for location and finished face wall to determine chute intake centerline location.
   4. FIELD QUALITY CONTROL
      1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection, or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
  1. CLEANING AND PROTECTION
     1. Clean products in accordance with the manufacturer's recommendations.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION