SECTION 08 36 00

SECTIONAL METAL OVERHEAD DOORS

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\*\* NOTE TO SPECIFIER \*\* Amarr Garage Door, commercial and residential steel insulated, non-insulated and aluminum sectional overhead door products.  
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This section is based on the products of Amarr Garage Door, which is located at:  
165 Carriage Court  
Winston-Salem, NC 27105  
Tel: (800) 503-3667  
Fax: (336) 251-1851  
Email: ask.amarr.com  
Web:[www.amarr.com](http://www.amarr.com)   
[click Here] for additional information.  
Established in 1951, Amarr is one of the world's leading brands in design, manufacturing and distribution of sectional doors for residential garages, condominiums, commercial buildings, shopping malls, warehouses and other industrial applications. Amarr is a company comprised of well-established entrance automation brands with nearly 200 years of cumulative experience.  
Amarr has over 70 Door Centers spread throughout the United States, Canada and Mexico. Each of these Amarr Garage Door Centers are "mini-plants", stocked with hundreds of sizes and styles of commercial and residential garage doors. In addition, because sometimes you need a door fast, each Door Center can customize doors with options and accessories, to fit most openings - usually within 24 hours.  
Amarr Door Centers are staffed with managers who can help you with your day-to-day questions about garage doors, track and springing specifications. This local manager is a reliable source of information for you.when you need it.  
Amarr Garage Doors are installed throughout the United States, Canada and Mexico by more than 3,000 professional garage door installers. For the Amarr Door Center nearest you, call our toll free number. We will be happy to direct you to a reliable Amarr Dealer in your area.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Commercial Insulated Steel Doors.
    2. Commercial Steel Doors.
    3. Commercial Aluminum Doors.
    4. Residential Steel Doors.
    5. Residential Aluminum Doors.
    6. Track and Framing
    7. Hardware.
  1. RELATED SECTIONS

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

* + 1. Section 04 27 23 - Cavity Wall Unit Masonry.
    2. Section 05 50 00 - Metal Fabrications.
    3. Section 06 10 00 - Rough Carpentry.
    4. Section 07 90 00 - Joint Protection.
    5. Section 08 71 00 - Door Hardware.
    6. Division 16 Sections: Electrical service and connections for powered operators.
  1. REFERENCES

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

* + 1. ASTM A 653/A 653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
    2. ASTM B 209/209M - Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
    3. ASTM B 221/221M - Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
    4. ASTM C 518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
    5. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
    6. DASMA TDS-163 - R-Value and U-Factor as Applied to a Residential or Commercial Garage Door.
    7. UL 325 - Door, Drapery, Gate, Louver, and Window Operators and Systems/
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
        4. Operation and maintenance data.
     3. Shop Drawings: Include opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
    2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
  1. WIND PERFORMANCE REQUIREMENTS
     1. Design doors to withstand positive and negative wind loads as calculated in accordance with applicable governing building codes.
  2. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing the types of doors specified in this section with minimum five years documented experience.
     2. Installer Qualifications: Installation to be by qualified dealer in accordance with the manufacturer's installation instructions.
  3. DELIVERY, STORAGE, AND HANDLING
     1. Store products in manufacturer's unopened packaging until ready for installation.
  4. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

\*\* NOTE TO SPECIFIER \*\* Select the warranty paragraph rquired for the Commercial or Residential doors required. Delete the paragraphs not required.

* 1. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Select the following paint finish warranty for Commercial door models 2432D and 1380D; Delete if not used.

* + 1. Paint finish: 10-year warranty against film integrity (peeling) and against color performance (fading) and chalking.

\*\* NOTE TO SPECIFIER \*\* Select the following paint finish warranty for Commercial door models 2002 and 2402. Delete if not used.

* + 1. Paint finish: 10-year warranty against film integrity (peeling) and against color performance (fading) and chalking.

\*\* NOTE TO SPECIFIER \*\* Select the following warranty for Commercial door Amarr 2742. Delete if not used.

* + 1. Delamination: 5-year warranty against delamination.

\*\* NOTE TO SPECIFIER \*\* Select the following paint finish warranty for Residential door Classica, Heritage, Stratford 3000, Olympus and Designer's Choice models; Delete if not used.

* + 1. Paint finish: Limited lifetime warranty against film integrity (peeling) and against color performance (fading) and chalking.

\*\* NOTE TO SPECIFIER \*\* Select the following warranty for Residential door Classica Amarr 3000 and Heritage 3000 models; Delete if not used.

* + 1. Hardware: Limited lifetime warranty.

\*\* NOTE TO SPECIFIER \*\* Select the following warranty for Residential door Classica 2000 Heritage 2000, Olympus and Designer's Choice models; Delete if not used.

* + 1. Hardware: 5-year warranty.

\*\* NOTE TO SPECIFIER \*\* Select the following warranty for Residential door Classica Amarr 1000, Heritage 1000, and Stratford 3000 models; Delete if not used.

* + 1. Hardware: 3-year warranty.

\*\* NOTE TO SPECIFIER \*\* Select the following paint finish warranty for Residential door Oak Summit 1000 and Stratford 1000 models; Delete if not used.

* + 1. Paint finish: 15 year warranty against film integrity (peeling) and against color performance (fading) and chalking.

\*\* NOTE TO SPECIFIER \*\* Select the following paint finish warranty for Residential door Oak Summit 2000 and Stratford 2000 models; Delete if not used.

* + 1. Paint finish: 25 year warranty against film integrity (peeling) and against color performance (fading) and chalking.

\*\* NOTE TO SPECIFIER \*\* Select the following warranty for Residential door Oak Summit Amarr 2000 and Stratford 2000 models; Delete if not used.

* + 1. Hardware: 2-year warranty.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Amarr Garage Doors, which is located at: 165 Carriage Ct.; Winston Salem, NC 27105; Toll Free Tel: 800-503-DOOR (3667); Fax: 336-251-1851; Email: [request info (ask.amarr@amarr.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Amarr+Garage+Doors&coid=30357&rep=&fax=336-251-1851&message=RE:%20Spec%20Question%20(08360ama):%20%20&mf=); Web: <https://www.amarr.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 provisions of Section 01 60 00 - Product Requirements.
  1. OVERHEAD DOORS - GENERAL
     1. Provide each door with door sections, brackets, tracks, counterbalance mechanisms and hardware to suit the opening and headroom available.
     2. Hardware:
        1. Minimum of 14 gauge galvanized steel hinges and 13 gauge galvanized steel track brackets.
        2. Rollers have 10 ball bearings with casehardened inner and outer races.
        3. Sliding end stile locking device provided with spring-loaded bolt for inside operation only.
        4. Doors wider than 16 feet 4 inches (5102 mm) are provided with double end hinges, double end stiles and long stem rollers.
     3. Tracks: 2 inches (51 mm) or 3 inches (76 mm) as required.
        1. Vertical track 17 or 19-gauge minimum galvanized steel, inclined using adjustable brackets to assure weather tight closure at the jambs.
        2. Horizontal tracks 16-gauge minimum galvanized steel, reinforced with 13 gauge galvanized steel angles as required by door size and weight.

\*\* NOTE TO SPECIFIER \*\* Select from the following track options; delete options not used.

* + - 1. Provide vertical lift tracks as indicated.
      2. Provide high lift tracks as indicated.
      3. Provide follow roof slope tracks as indicated.
      4. Provide low headroom tracks as indicated.
    1. Spring Counterbalance: Torsion springs for door counter-balance mounted on a continuous cross header shaft. Springs to be oil tempered, helical wound and custom computed for each door. Cable drums to be die cast aluminum. Galvanized lift cable to provide minimum safety factor of five to one. Springs to comply with ANSI/DASMA 102-2004 as follows:

\*\* NOTE TO SPECIFIER \*\* Select from the following spring cycle options; delete options not used.

* + - 1. Standard Cycle Spring: 10,000 cycles.
      2. High Cycle Spring: 25,000 cycles.
      3. High Cycle Spring: 50,000 cycles.
      4. High Cycle Spring: 100,000 cycles.
    1. Handle: Galvanized steel step plate/lift handle provided on inside and outside of bottom section.
    2. Lock: Standard interior sliding end stile lock with hole to receive padlock.

\*\* NOTE TO SPECIFIER \*\* Select the following lock option; delete if not used.

* + - 1. Lock: 5 pin cylinder lock interior lock bar and outside key.

\*\* NOTE TO SPECIFIER \*\* Select the following weatherstripping options for Models 1000D and 1380D; delete if not used.

* + 1. Weatherstripping: 3-1/2 inches (90 mm) U-shaped vinyl bottom seal in a full-length 0.050 inch (1.3 mm) aluminum retainer attached to the bottom section.

\*\* NOTE TO SPECIFIER \*\* Select the following weatherstripping options for Amarr 2700; delete if not used.

* + 1. Weatherstripping: Full length dual contact EPDM rubber bottom seal attached to bottom section.

\*\* NOTE TO SPECIFIER \*\* Select the following weather tripping options for Residential Models 1000, 2000 and 3000; delete if not used.

* + 1. Weatherstripping: 3-3/4 inches (95 mm) Bulb shaped EPDM rubber bottom seal in a full-length 0.030 inch (0.76 mm) galvanized steel retainer.
    2. Weatherstripping: Perimeter seal for header and jambs.

\*\* NOTE TO SPECIFIER \*\* Select one of the following mounting conditions; delete other.

* + 1. Mounting: Continuous reverse angle mounting for steel jambs.
    2. Mounting: Bracket mounting for wood jambs.

\*\* NOTE TO SPECIFIER \*\* Select from the following options; delete options not used.

* + 1. Exhaust port: Installed in bottom sections. Connecting tube from vehicles by others.
  1. COMMERCIAL INSULATED STEEL DOORS

\*\* NOTE TO SPECIFIER \*\* Select from the following insulated steel doors; delete those not used.

* + 1. Amarr 2432 Commercial 2 inches (51 mm) heavy duty insulated door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 24 gauge exterior and 27 gauge interior steel skins laminated to a CFC-free expanded polystyrene (EPS) foam core with a special urethane adhesive.
          1. Energy values; R=9.19 R-value is in accordance with DASMA TDS-163.
          2. Exterior skin with 0.41 inch (10.4 mm) minor ribs on 4 or 5 inches (102 or 127 mm) centers.
          3. End stiles 20 gauge galvanized steel.
          4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
          5. Section joint to form weather tight tongue and groove joint with Polypropylene Wear-Seal between each joint to reduce noise, reduce normal wear and tear on sections and form a second thermal break.
       3. Finish: Exterior skin is ribbed and interior skin is stucco embossed texture. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select exterior color from the following options; delete options not used.

* + - * 1. Exterior Color: White.
        2. Exterior Color: Commercial Brown.
        3. Exterior Color: Sandtone.
        4. Exterior Color: Commercial Gray.

\*\* NOTE TO SPECIFIER \*\* Select from the following window options; delete options not used.

* + - 1. Window Lites: Framed lites 24 by 4 inches (610 by 102 mm) double insulated acrylic with black frame.
      2. Window Lites: Framed lites 24 by 12 inches (610 by 305 mm) molded plastic frame with insulated glass consisting of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2442 Commercial 2 inches (51 mm) polyurethane insulated door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of rolled formed, commercial quality, flush 24 gauge exterior and ribbed 27 gauge interior steel skins, stucco embossed for added strength.
          1. Door to have tongue and groove joint system with HMA thermal breaks combined with an EDPM seal between section joints.
          2. Sections to be insulated with CFC free polyurethane foamed in place by means of a continuous process.
          3. Tested Door Section R-Value in Accordance with ASTM C518-04: 19.4.
          4. Section U-Value: 0.052.
          5. End Stiles and steel at end hinge attachment reinforcement locations to be 14 ga minimum combined thickness.
          6. Interior skin of each section to have a continuous reinforcing strip, 20 gauge by 3-1/4 inches (83 mm) wide at top and bottom of section to provide for mounting of full sized hinges or hardware.
       3. Finish: Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked on prime coat and an 0.8 mil baked on polyester top coat.

\*\* NOTE TO SPECIFIER \*\* Delete exterior colors not used.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Black.
        3. Exterior Color: Custom ColorZone color.
      1. Air Infiltration:
         1. Comply with ASHRAE 90.1, IECC and California Title 24 requirements for maximum U-factor of operable fenestrations with a 3rd party certified tested value of less than 0.37.
         2. Comply with California Title 24 requirements for maximum air leakage for fenestration assemblies with a third-party certified tested value not exceeding 0.30 cfm/ft2.
      2. Thermal Performance:
         1. Comply with ASHRAE 90.1, IECC and California Title 24 requirements for maximum U-factor of operable fenestrations with a 3rd party certified tested value of less than 0.37.

\*\* NOTE TO SPECIFIER \*\* Delete window lites options not used.

* + - 1. Window Lites: 24 by 6 inches (610 by 152 mm) double insulated acrylic with Black Frame.
      2. Window Lites: 24 by 8 inches (610 by 203 mm) double insulated acrylic with Black Frame.
      3. Window Lites: 26 by 13 inches (635 by 330 mm) double insulated acrylic with Black Frame.
      4. Thermal Windows/Insulated Glass: 24 by 12 inches (610 by 305 mm) Molded plastic frame with insulated glass. Insulated glass unit to consist of two pieces of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.

\*\* NOTE TO SPECIFIER \*\* Delete frame option not used.

* + - * 1. Frame: White.
        2. Frame: Black.
      1. Window Lites: 41 by 13 inches (1,041 by 330 mm) single polycarbonate with aluminum frame.

\*\* NOTE TO SPECIFIER \*\* Delete frame option not used.

* + - * 1. Frame: White.
        2. Frame: Black.
      1. Aluminum Full View Door Sections:
         1. Rails and stiles extruded from 6063-T6 aluminum.
         2. All stiles and rails to be secured with 5/16 inch (8 mm) diameter through rods.
         3. Door Finish:

\*\* NOTE TO SPECIFIER \*\* Delete color option not used.

All aluminum rails and stiles to be a Class 1 clear anodized finish.

All aluminum rails and stiles to be a white powder coat finish.

\*\* NOTE TO SPECIFIER \*\* Delete panel options not used.

* + - * 1. Solid Panels: 0.050 inch (1.3 mm) aluminum panels sealed with glazing tape and an aluminum glazing bead.
        2. Solid Insulated Panels: 1/2 inch (12.7 mm) overall insulated panel composed of 0.050 inch (1.3 mm) aluminum interior and exterior panels with an extruded polystyrene (EPS) core sealed with glazing tape and an aluminum glazing bead.
        3. Glazed Panels: 1/8 inch (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
        4. Glazed Panels: 1/8 inch (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.
        5. Glazed Panels: 1/2 inch (12.7 mm) overall insulated double pane 1/8" (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
        6. Glazed Panels: 1/2 inch (12.7 mm) overall insulated double pane 1/8" (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.
      1. SuperFlex flexible impact sections:

\*\* NOTE TO SPECIFIER \*\* Delete Superflex flexible impact section option not used.

* + - * 1. Flexible impact bottom section up to 12 ft 2 inches (3.7 m) in lieu of the standard bottom section.
        2. Flexible impact bottom and (1) flexible impact intermediate section up to 12 ft 2 inches (3.7 m) in lieu of the standard bottom section and standard intermediate section.
      1. Operation:

\*\* NOTE TO SPECIFIER \*\* Delete operation options not used.

* + - * 1. Manual Operation: Pull rope.
        2. Manual Operation: Chain hoist.
        3. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer. Operator shall meet UL325-2010 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Delete the monitored protection options not used.

Electric sensing edge monitored to meet UL 325-2010.

Photoelectric sensors monitored to meet UL 325-2010.

\*\* NOTE TO SPECIFIER \*\* Delete the following non-monitored protection options; delete options not used.

Ancillary Entrapment Protection: Supplements primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 ft (6.7 m).

Retro-Reflective photo sensor.

Operator Control Mounting:

\*\* NOTE TO SPECIFIER \*\* Delete mounting option not used.

Flush Mount.

Surface Mount.

Operator Control Operation:

\*\* NOTE TO SPECIFIER \*\* Delete operator control operation options not used.

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

Operator Control Location:

\*\* NOTE TO SPECIFIER \*\* Delete operator control location options not used.

Interior location.

Exterior location.

Both interior and exterior location.

Special Operation:

\*\* NOTE TO SPECIFIER \*\* Delete special operation options not used.

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2731 Commercial 1-3/8 inches (35 mm) medium duty insulated door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 1-3/8 inches (35 mm) thick, sandwich construction consisting of 27 gauge exterior and interior steel skins laminated to a CFC-free expanded polystyrene (EPS) foam core with a special urethane adhesive.
          1. Calculated door section R-value of 6.48 is in accordance with DASMA TDS-163.
          2. Exterior skin flush woodgrain embossed.
          3. End stiles to be 20 gauge painted steel.
          4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
          5. Section joint to form weather tight tongue and groove joint.
       3. Finish: Exterior skin is ribbed and interior skin is woodgrain embossed texture. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select exterior color from the following options; delete options not used.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Almond.
        3. Exterior Color: Sandtone.
        4. Exterior Color: Wicker Tan.

\*\* NOTE TO SPECIFIER \*\* Select from the following window options; delete options not used.

* + - 1. Window Lites: Framed lites 24 by 4 inches (610 by 102 mm) double insulated acrylic with black frame.
      2. Window Lites: Framed lites 24 by 12 inches (610 by 305 mm) molded plastic frame with insulated glass consisting of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.
      3. Window Lites: Framed lites 41 by 13 inches (1041 by 330 mm) with Clear, Obscure, Clear Insulated, or Non-Insulated glazing in screw together matching color PVC frame.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2742 Commercial 2 inches (51 mm) polyurethane insulated door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of rolled formed, commercial quality, 27 gauge exterior and interior steel skins, stucco embossed, and ribbed for added strength.
          1. Sections to be insulated with CFC free polyurethane, foamed in place by means of a continuous process.
          2. Energy values: R-value of 19.40 is tested in accordance with ASTM C 518.
          3. Interior skin of each section to have one continuous reinforcing strip, 20 gauge by 3-1/4 inches (83 mm) wide at top and bottom of section to provide mounting of full hinges.
          4. End stiles to be 19 gauge standard.
          5. Door to have tongue and groove joint system with EPDM thermal break and weather strip between section joints.
       3. Finish: Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat.

\*\* NOTE TO SPECIFIER \*\* Select from the following exterior colors; delete colors not used.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Commercial Brown.
        3. Exterior Color: Sandtone
        4. Exterior Color: Commercial Gray

\*\* NOTE TO SPECIFIER \*\* Select from the following window options; delete options not used.

* + - 1. Window Lites: 20 by 6 inches (508 by 152 mm) double insulated acrylic.
      2. Window Lites: 26 by 13 inches (660 by 330 mm) double insulated acrylic.
      3. Thermal Windows/Insulated Glass: 24 by 12 inches (610 by 305 mm) Molded plastic frame with insulated glass. Insulated glass unit to consist of two pieces of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.
      4. Aluminum Fullview Door Sections:
         1. Rails and stiles extruded 6063-T6 aluminum
         2. Stiles and rails secured with 5/16 inch (8 mm) diameter through rods.

\*\* NOTE TO SPECIFIER \*\* Select from the following color options; delete options not used.

* + - * 1. Door Finish:

Aluminum rails and stiles clear anodized finish.

Aluminum rails and stiles dark bronze anodized finish.

Aluminum rails and stiles white powder coat finish.

\*\* NOTE TO SPECIFIER \*\* Select from the following panel options; delete options not used.

* + - * 1. Solid Panels: 0.050 inch (1.3 mm) aluminum panels sealed with glazing tape and an aluminum glazing bead.
        2. Solid Insulated Panels: 1/2 inch (12.7 mm) overall insulated panel composed of 0.050 inch (1.3 mm) aluminum interior and exterior panels with an extruded polystyrene (EPS) core sealed with glazing tape and an aluminum glazing bead.
        3. Glazed Panels: 1/8 inch (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
        4. Glazed Panels: 1/8 inch (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.
        5. Glazed Panels: 1/2 inch (12.7 mm) overall insulated double pane 1/8" (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
        6. Glazed Panels: 1/2 inch (12.7 mm) overall insulated double pane 1/8" (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2743 Commercial 3 inches (76 mm) polyurethane insulated door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 3 inches (76 mm) thick, sandwich construction consisting of rolled formed, commercial quality, 27 gauge exterior and interior steel skins, stucco embossed, and ribbed for added strength.
          1. Sections to be insulated with CFC free polyurethane, foamed in place by means of a continuous process.
          2. Energy values: R-value of 28.0 is tested in accordance with ASTM C 518.
          3. Interior skin of each section to have one continuous reinforcing strip, 20 gauge by 3-1/4 inches (83 mm) wide at top and bottom of section to provide mounting of full hinges.
          4. End stiles to be 19 gauge standard.
          5. Door to have tongue and groove joint system with EPDM thermal break and weather strip between section joints.
       3. Finish: Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat.

\*\* NOTE TO SPECIFIER \*\* Select from the following exterior colors; delete colors not used.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Commercial Brown.
        3. Exterior Color: Sandtone
        4. Exterior Color: Commercial Gray

\*\* NOTE TO SPECIFIER \*\* Select from the following window options; delete options not used.

* + - 1. Thermal Windows/Insulated Glass: 24 by 8 inches (610 by 203 mm) Molded plastic frame with insulated glass. Insulated glass unit to consist of two pieces of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.
      2. Thermal Windows/Insulated Glass: 24 by 12 inches (610 by 305 mm) Molded plastic frame with insulated glass. Insulated glass unit to consist of two pieces of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2042 Commercial 2 inches (51 mm) polyurethane insulated door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of rolled formed, commercial quality, 27 gauge exterior and interior steel skins, stucco embossed, and ribbed for added strength.
          1. Sections to be insulated with CFC free polyurethane, foamed in place by means of a continuous process.
          2. Energy values: R-value of 19.40 is tested in accordance with ASTM C 518.
          3. Interior skin of each section to have one continuous reinforcing strip, 20 gauge by 3-1/4 inches (83 mm) wide at top and bottom of section to provide mounting of full hinges.
          4. End stiles to be 19 gauge standard.
          5. Door to have tongue and groove joint system with EPDM thermal break and weather strip between section joints.
       3. Finish: Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat.
          1. Exterior Color: Commercial White.

\*\* NOTE TO SPECIFIER \*\* Select from the following window options; delete options not used.

* + - 1. Window Lites: 20 by 6 inches (508 by 152 mm) double insulated acrylic.
      2. Window Lites: 26 by 13 inches (660 by 330 mm) double insulated acrylic.
      3. Thermal Windows/Insulated Glass: 24 by 12 inches (610 by 305 mm) Molded plastic frame with insulated glass. Insulated glass unit to consist of two pieces of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.
      4. Aluminum Fullview Door Sections:
         1. Rails and stiles extruded 6063-T6 aluminum
         2. Stiles and rails secured with 5/16 inch (8 mm) diameter through rods.

\*\* NOTE TO SPECIFIER \*\* Select from the following color options; delete options not used.

* + - * 1. Door Finish:

Aluminum rails and stiles clear anodized finish.

Aluminum rails and stiles white powder coat finish.

\*\* NOTE TO SPECIFIER \*\* Select from the following panel options; delete options not used.

* + - * 1. Solid Panels: 0.050 inch (1.3 mm) aluminum panels sealed with glazing tape and an aluminum glazing bead.
        2. Solid Insulated Panels: 1/2 inch (12.7 mm) overall insulated panel composed of 0.050 inch (1.3 mm) aluminum interior and exterior panels with an extruded polystyrene (EPS) core sealed with glazing tape and an aluminum glazing bead.
        3. Glazed Panels: 1/8 inch (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
        4. Glazed Panels: 1/8 inch (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.
        5. Glazed Panels: 1/2 inch (12.7 mm) overall insulated double pane 1/8" (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
        6. Glazed Panels: 1/2 inch (12.7 mm) overall insulated double pane 1/8" (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2741 Commercial 1-3/8 inches (35 mm) polyurethane insulated door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 1-3/8 inches (35 mm) thick, sandwich construction consisting of rolled formed, commercial quality, 27 gauge exterior and interior steel skins, stucco embossed, and ribbed for added strength.
          1. Sections to be insulated with CFC free polyurethane, foamed in place by means of a continuous process.
          2. Calculated door section R-value of 14.46 is in accordance with DASMA TDS-163.
          3. Interior skin of each section to have one continuous reinforcing strip, 20 gauge by 3-1/4 inches (83 mm) wide at top and bottom of section to provide mounting of full hinges.
          4. End stiles to be 19 gauge standard.
          5. Door to have tongue and groove joint system with EPDM thermal break and weather strip between section joints.
       3. Finish: Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat.
          1. Exterior Color: White.

\*\* NOTE TO SPECIFIER \*\* Select from the following window options; delete options not used.

* + - 1. Window Lites: 24 by 6 inches (610 by 152 mm) double insulated acrylic with Black Frame.
      2. Window Lites: 26 by 13 inches ( 660 by 305 mm) double insulated acrylic with Black Frame.
      3. Thermal Windows/Insulated Glass: 24 by 12 inches (610 by 305 mm) Molded plastic frame with insulated glass. Insulated glass unit to consist of two pieces of 1/8 inch (3.2 mm) thick clear glass with a 7/8 inch (22 mm) aluminum spacer.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

\*\* NOTE TO SPECIFIER \*\* Select from the following commercial steel door models; delete models not used.

* 1. COMMERCIAL STEEL DOORS
     1. Amarr 2002 commercial ribbed steel door.
        1. Door Size: As indicated on the Drawings.
        2. Door Sections: 2 inches (51 mm) thick roll formed from commercial quality hot dipped galvanized 20, 24, or 25 gauge steel per ASTM A 653.
           1. Each section has two deep ribs and six shallow ribs and a tongue and groove joint for a weather tight seal between sections.
           2. End and intermediate stiles to be formed from 0.042 inch (1.1 mm) 19 gauge minimum galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
           3. Stiles fastened to the section using the TOG-L-LOC joining system.
        3. Finish: Exterior skin is ribbed and interior skin is stucco embossed texture. Door exterior pre-painted steel consisting of a hot dipped galvanized coating applied to base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.
           1. Exterior Color: White.

\*\* NOTE TO SPECIFIER \*\* Select from the following options; delete options not used.

* + - 1. Window Lites: Framed lites 24 by 6 inches (610 by 152 mm) with DBS or Plexiglas glazing in screw together PVC frame.
      2. Window Lites: Framed lites 24 by 12 inches (610 by 305 mm) with single or insulated Plexiglas glazing in screw together PVC frame
      3. Full View Sections: Full view aluminum sections with clear anodized finish in place of framed lites.
      4. Insulation: CFC-free expanded polystyrene (EPS) insulation with a faced or steel backer on door interior.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2402 commercial ribbed steel door with wood grain embossed texture.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 2 inches (51 mm) thick roll formed from commercial quality hot dipped galvanized 24 gauge steel per ASTM A 653.
          1. Each section has two deep ribs and six shallow ribs and a tongue and groove joint for a weather tight seal between sections.
          2. End and intermediate stiles to be formed from 0.042 inch (1.1 mm) 19 gauge minimum galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
          3. Stiles fastened to the section using the TOG-L-LOC joining system.
       3. Finish: Door exterior pre-painted steel consisting of a hot dipped galvanized coating applied to base metal, a 0.2 mil baked on prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.

\*\* NOTE TO SPECIFIER \*\* Select from the following exterior colors. Delete color not used.

* + - * 1. Exterior Color: White.
        2. Exterior Color: Brown.
        3. Exterior Color: Black.
        4. Exterior Color: Commercial Black.

\*\* NOTE TO SPECIFIER \*\* Select from the following options; delete options not used.

* + - 1. Window Lites: Framed lites 24 by 6 inches (610 by 152 mm) with DBS or Plexiglas glazing in screw together PVC frame.
      2. Window Lites: Framed lites 24 by 12 inches (610 by 305 mm) with single or insulated Plexiglas glazing in screw together PVC frame.
      3. Full View Sections: Full view aluminum sections with following finish.

\*\* NOTE TO SPECIFIER \*\* Select from the following color options; delete options not used.

* + - * 1. Clear Anodized Aluminum.
        2. Dark Bronze Anodized Aluminum.
        3. Black Anodized Aluminum.
        4. White Powder Coated Aluminum.

\*\* NOTE TO SPECIFIER \*\* Select insulation from the following options; delete option not used.

* + - 1. Insulation.
         1. CFC-free expanded polystyrene (EPS) insulation with a vinyl faced backer on door interior.
         2. CFC-free expanded polystyrene (EPS) insulation with a steel backer on door interior.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 2502 commercial ribbed steel door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 2 inches (51 mm) thick roll formed from commercial quality hot dipped galvanized 24 gauge steel per ASTM A 653.
          1. Each section has two deep ribs and six shallow ribs and a tongue and groove joint for a weather tight seal between sections.
          2. End and intermediate stiles to be formed from 0.042 inch (1.1 mm) minimum galvanized steel and engineered to maximize material strength.
          3. Stiles fastened to the section using the TOG-L-LOC joining system.
       3. Finish: Door exterior pre-painted steel consisting of a hot dipped galvanized coating applied to base metal, a 0.2 mil baked on prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.
          1. Exterior Color: Commercial White.

\*\* NOTE TO SPECIFIER \*\* Select from the following options; delete options not used.

* + - 1. Window Lites: Framed lites 24 by 6 inches (610 by 152 mm) with DBS or Plexiglas glazing in screw together PVC frame.
      2. Window Lites: Framed lites 24 by 12 inches (610 by 305 mm) with single or insulated Plexiglas glazing in screw together PVC frame.
      3. Full View Sections: Full view aluminum sections with clear anodized finish.
      4. Insulation: CFC-free expanded polystyrene (EPS) insulation with a faced or steel backer on door interior.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* 1. COMMERCIAL ALUMINUM DOORS
     1. Amarr 3502 commercial aluminum full-view door.
        1. Door Size: As indicated on the Drawings.
        2. Door Sections: 2 inches (51 mm) thick Class II clear anodized finish.
           1. Rails and stiles 6063-T6 extruded aluminum.
           2. Center stiles to be 2-3/4 inches (70 mm).
           3. End stiles to be 3-3/8 inches (86 mm).
           4. Top rails to be 3-7/8 inches (98 mm).
           5. Intermediate rails to be 2-1/2 inches (64 mm) per pair.
           6. Bottom rails to be 2-7/8 inches (73 mm).
           7. Stiles and rails secured with 5/16 inch (8 mm) diameter through rods.
        3. Door Finish:
           1. Aluminum rails and stiles to be clear anodized finish.

\*\* NOTE TO SPECIFIER \*\* Select from the following options; delete options not used.

* + - 1. Glazing: 1/8 inch (3.2 mm) DSB glass panels in continuous vinyl gasket and held in place with an aluminum bead.
      2. Glazing: 1/2 inch (12.7 mm) insulated glass panels in continuous vinyl gasket and held in place with an aluminum bead.
      3. Solid Panels: 0.050 inch (1.3 mm) aluminum panels in continuous vinyl gasket and held in place with an aluminum bead.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

* + 1. Amarr 3552 commercial aluminum full-view door.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections: 2 inches (51 mm) thick Class II clear anodized finish.
          1. Rails and stiles 6063-T6 extruded aluminum.
          2. Center stiles to be 2-3/4 inches (70 mm).
          3. End stiles to be 3-3/8 inches (86 mm).
          4. Top rails to be 3-7/8 inches (98 mm).
          5. Intermediate rails to be 2-1/2 inches (64 mm) per pair.
          6. Bottom rails to be 2-7/8 inches (73 mm).
          7. Stiles and rails secured with 5/16 inch (8 mm) diameter through rods.

\*\* NOTE TO SPECIFIER \*\* Select from the following color options; delete options not used.

* + - 1. Door Finish:
         1. Aluminum rails and stiles clear anodized finish.
         2. Aluminum rails and stiles dark bronze anodized finish.
         3. Aluminum rails and stiles black anodized finish.
         4. Aluminum rails and stiles white powder coat finish.

\*\* NOTE TO SPECIFIER \*\* Select the following option if custom powder coat color is required. Provide RAL color number and description. Custom powder coat color must meet AAMA 2604 minimum requirements to be used. Delete option if not used.

* + - * 1. Aluminum rails and stiles custom powder coat \_\_\_ RAL color number \_\_\_\_\_\_\_\_\_ that meets AAMA 2604 minimum standards.

\*\* NOTE TO SPECIFIER \*\* Select from the following options; delete options not used.

* + - 1. Solid Panels: 0.050 inch (1.3 mm) aluminum panels in continuous vinyl gasket and held in place with an aluminum bead.
      2. Perforated Aluminum Panels: Aluminum panels with 0.312 inch (7.9 mm) square perforations on 1/2 inch centers.
      3. Louvered Aluminum Panels: Aluminum panels with up to 7 columns of twelve 3 inch by 3/4 inch (76.2 mm by 19.1 mm) vents.
      4. Solid Insulated Panels: 1/2 inch (12.7 mm) overall panel composed of 0.050 inch (1.3 mm) aluminum interior and exterior panels with an extruded polystyrene (EPS) core sealed with glazing tape and an aluminum glazing bead.
      5. Glazing: 1/8 inch (3.2 mm) DSB glass panels in continuous vinyl gasket and held in place with an aluminum bead.
      6. Glazed Panels: 1/8 inch (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.
      7. Glazed Panels: 1/2 inch (12.7 mm) overall with insulated double pane 1/8 inch (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
      8. Glazed Panels: 1/2 inch (12.7 mm) overall with insulated double pane 1/8 inch (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.

\*\* NOTE TO SPECIFIER \*\* Select from the following operation options; delete options not used.

* + - 1. Operation
         1. Manual Operation: Pull rope.
         2. Manual Operation: Chain hoist.
         3. Electric Motor Operation: Provide UL listed electric operator, of size and type recommended by manufacturer. Operator shall meet UL 325 requirements for continuous monitoring of safety devices.

Primary Monitored Entrapment Protection Entrapment Protection: Required for momentary contact including radio control operation.

\*\* NOTE TO SPECIFIER \*\* Select one of the following monitored protection options; delete option not used.

Electric sensing edge monitored to meet UL 325.

Photoelectric sensors monitored to meet UL 325.

\*\* NOTE TO SPECIFIER \*\* Select one of the following non-monitored protection options; delete option not used.

Ancillary Entrapment Protection, used to supplement primary entrapment protection or basic constant-pressure-to-close.

Pneumatic Sensing Edge up to 22 feet.

Retro-Reflective photo sensor.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete option not used.

Operator Control Mounting:

Flush Mount.

Surface Mount.

\*\* NOTE TO SPECIFIER \*\* Select one of the following Operator control options; delete options not used.

Operator Control Operation:

Push-button operated control stations with open, close, and stop buttons.

Key operated control stations with open, close, and stop buttons.

Push-button and key operated control stations with open, close, and stop buttons.

\*\* NOTE TO SPECIFIER \*\* Select one of the following operator control location options; delete options not used.

Operator Control Location:

Interior location.

Exterior location.

Both interior and exterior location.

\*\* NOTE TO SPECIFIER \*\* Select from the following special operation options; delete options not used.

Special Operation:

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Explosion and dust ignition proof control wiring.

\*\* NOTE TO SPECIFIER \*\* Select from the following residential steel door models as required for the project; delete models not used.

* 1. RESIDENTIAL STEEL DOORS
     1. Carriage Court CC4000 Residential Carriage House, 2 inches (51 mm) heavy duty, four layer doors.
        1. Door Styles:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Laurelbay:
        2. Pinetop:
        3. Bradberry:
        4. Kensington:
        5. Seabrook:
        6. Rosemont:
        7. Ashley:
        8. Charlton:
        9. Fairfield:
        10. Middleton:
        11. Greenbriar:
        12. Darby:
        13. Newberry:
        14. Tanglewood:
      1. Size:

\*\* NOTE TO SPECIFIER \*\* Select the size required from the following paragraphs. Delete paragraphs not required.

* + - * 1. As indicated on the Drawings.
      1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Closed Arch style.
        2. Closed Square style.
        3. Clear Square style.
        4. Clear Arch style.
        5. 3 Lite Square style.
        6. 3 Lite Arch style.
        7. 6 Lite Square style.
        8. 6 Lite Arch style.
        9. 4 Lite Square style.
        10. 4 Lite Arch style.
        11. 8 Lite Square style.
        12. 8 Lite Arch style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - 1. Window Lites: Framed lites with 1/8 inch (3 mm) thick clear double-strength tempered glass.
      2. Window Lites: Framed lites with 1/8 inch (3 mm) thick obscure tempered glass.
      3. Window Lites: Framed lites with insulating glass.

\*\* NOTE TO SPECIFIER \*\* The following window inserts are optional. Delete if not required.

* + - 1. Decorative Window Inserts: 5/8 inch thick grilles with coped edge, PVC divider trim, color to match door.
      2. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 24 gauge exterior and 27 gauge interior steel skins laminated to a CFC-free expanded polystyrene (EPS) foam core with a special urethane adhesive. Composite overlay trim consists of 5/8 inch thick wood fiber and thermoplastic polymer with coped edges. End stiles 20 gauge galvanized steel.
         1. Energy values: R=6.48. R-value is in accordance with DASMA TDS-163.
         2. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         3. Stiles fastened to the section using the TOG-L-LOC joining system.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
      3. Finish: Exterior skin and composite overlay trim have a woodgrain embossed texture. Exterior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: True White/White.
        2. Exterior Color: Almond/White.
        3. Exterior Color: Wicker Tan/White.
        4. Exterior Color: Sandtone/White.
        5. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraphs are optional. Delete paragraphs not required.

* + - * 1. Alpine Lock.
        2. Blue Ridge Strap Hinge.
        3. Blue Ridge Handles.
        4. Canterbury Handles.
        5. Canterbury Ring Handles.
        6. Canterbury Strap Hinge.
        7. Versailles Handles.
        8. Versailles Hinge.
        9. Versailles Strap Hinge.
        10. Castle Rock Handles.
        11. Castle Rock Strap Hinge.
        12. Amarr lock.
        13. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - 1. Amarr 3585, 3/4 HP belt drive.
      2. Amarr 3850, 3/4 HP belt drive with battery back-up.
    1. Classica CL1000 Residential Carriage House, 2 inches (51 mm) heavy duty, single layer doors.
       1. Door Styles:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Lucern:
        2. Santiago:
        3. Tuscany:
        4. Valencia:
        5. Northampton:
        6. Bordeaux:
        7. Cortona:
      1. Size:

\*\* NOTE TO SPECIFIER \*\* Select the size required from the following paragraphs. Delete paragraphs not required.

* + - * 1. 9 feet by 7 feet (2.74 m by 2.13 m).
        2. 16 feet by 7 feet (4.88 m by 2.13 m).
        3. As indicated on the Drawings.
      1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Closed Arch style.
        2. Closed Square style.
        3. Danube window style.
        4. Madeira window style.
        5. Nile window style.
        6. Rhine window style.
        7. Seine window style.
        8. Thames window style.
        9. Obscure window style.
        10. Americana window style.
        11. Jardin window style.
        12. Trellis window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - 1. Window Lites: Framed lites with 1/8 inch (3 mm) thick clear tempered glass.
      2. Window Lites: Framed lites with 1/8 inch (3 mm) thick obscure tempered glass.
      3. Window Lites: Framed lites with insulating glass.

\*\* NOTE TO SPECIFIER \*\* The following window inserts are optional. Delete if not required.

* + - 1. Decorative Window Inserts: PVC divider trim, color to match door.
      2. Door Sections: 2 inches (51 mm) thick, single layer construction consisting of 24 gauge steel skin.
         1. End stiles 20 gauge galvanized steel.
         2. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         3. Stiles fastened to the section using the TOG-L-LOC joining system.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
      3. Finish: Exterior skin has a woodgrain embossed texture. Exterior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Almond.
        3. Exterior Color: Wicker Tan.
        4. Exterior Color: Sandtone.
        5. Exterior Color: Terratone.
        6. Exterior Color: Dark Brown.
        7. Exterior Color: Golden Oak.
        8. Exterior Color: Walnut.
        9. Exterior Color: Mahogany.
        10. Exterior Color: Two-Tone True White/Almond.
        11. Exterior Color: Two-Tone True White/Wicker Tan.
        12. Exterior Color: Two Tone True White/Sandtone.
        13. Exterior Color: Two Tone True White/Terratone.
        14. Exterior Color: Two Tone True White/Dark Brown.
        15. Exterior Color: Two Tone True White/Hunter Green.
        16. Exterior Color: Two Tone True White/Gray.
        17. Exterior Color: Two Tone Almond/True White.
        18. Exterior Color: Two Tone Almond/Wicker Tan.
        19. Exterior Color: Two Tone Almond/Sandtone.
        20. Exterior Color: Two Tone Almond/Terratone.
        21. Exterior Color: Two Tone Almond/Dark Brown.
        22. Exterior Color: Two Tone Almond/Hunter Green.
        23. Exterior Color: Two Tone Almond/Gray.
        24. Exterior Color: Two Tone Wicker Tan/True White.
        25. Exterior Color: Two Tone Wicker Tan/Almond.
        26. Exterior Color: Two Tone Wicker Tan/Sandtone.
        27. Exterior Color: Two Tone Wicker Tan/Terratone.
        28. Exterior Color: Two Tone Wicker Tan/Dark Brown.
        29. Exterior Color: Two Tone Wicker Tan/Hunter Green.
        30. Exterior Color: Two Tone Wicker Tan/Gray.
        31. Exterior Color: Two Tone Sandtone/True White.
        32. Exterior Color: Two Tone Sandtone/Almond.
        33. Exterior Color: Two Tone Sandtone/Wicker Tan.
        34. Exterior Color: Two Tone Sandtone/Terratone.
        35. Exterior Color: Two Tone Sandtone/Dark Brown.
        36. Exterior Color: Two Tone Sandtone/Hunter Green.
        37. Exterior Color: Two Tone Sandtone/Gray.
        38. Exterior Color: Two Tone Terratone/True White.
        39. Exterior Color: Two Tone Terratone/Almond.
        40. Exterior Color: Two Tone Terratone/Wicker Tan.
        41. Exterior Color: Two Tone Terratone/Sandtone.
        42. Exterior Color: Two Tone Terratone/Dark Brown.
        43. Exterior Color: Two Tone Terratone/Hunter Green.
        44. Exterior Color: Two Tone Terratone/Gray.
        45. Exterior Color: Two Tone Dark Brown/True White.
        46. Exterior Color: Two Tone Dark Brown/Almond.
        47. Exterior Color: Two Tone Dark Brown/Wicker Tan.
        48. Exterior Color: Two Tone Dark Brown/Sandtone.
        49. Exterior Color: Two Tone Dark Brown/Terratone.
        50. Exterior Color: Two Tone Dark Brown/Hunter Green.
        51. Exterior Color: Two Tone Dark Brown/Gray.
        52. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraphs are optional. Delete paragraphs not required.

* + - * 1. Alpine Lock.
        2. Blue Ridge Strap Hinge.
        3. Blue Ridge Handles.
        4. Canterbury Handles.
        5. Canterbury Ring Handles.
        6. Canterbury Strap Hinge.
        7. Versailles Handles.
        8. Versailles Hinge.
        9. Versailles Strap Hinge.
        10. Amarr Lock.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive..
        2. Amarr 3850, 3/4 HP belt drive with battery back-up.
    1. Classica CL2000 Residential Carriage House, 2 inches (51 mm) heavy duty double layer insulated doors.
       1. Door Styles:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Lucern:
        2. Santiago:
        3. Tuscany:
        4. Valencia:
        5. Northampton:
        6. Bordeaux:
        7. Cortona:
      1. Size:

\*\* NOTE TO SPECIFIER \*\* Select the size required from the following paragraphs. Delete paragraphs not required.

* + - * 1. 9 feet by 7 feet (2.74 m by 2.13 m).
        2. 16 feet by 7 feet (4.88 m by 2.13 m).
        3. As indicated on the Drawings.
      1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Closed Arch style.
        2. Closed Square style.
        3. Danube window style.
        4. Madeira window style.
        5. Nile window style.
        6. Rhine window style.
        7. Seine window style.
        8. Thames window style.
        9. Obscure window style.
        10. Americana window style.
        11. Jardin window style.
        12. Trellis window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - 1. Window Lites: Framed lites with 1/8 inch (3 mm) thick clear tempered glass.
      2. Window Lites: Framed lites with 1/8 inch (3 mm) thick obscure tempered glass.
      3. Window Lites: Framed lites with insulating glass.

\*\* NOTE TO SPECIFIER \*\* The following window inserts are optional. Delete if not required.

* + - 1. Decorative Window Inserts: PVC divider trim, color to match door.
      2. Door Sections: 2 inches (51 mm) thick, construction consisting of 24 gauge steel skin.
         1. End stiles 20 gauge galvanized steel.
         2. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         3. Stiles fastened to the section using the TOG-L-LOC joining system.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
         6. Insulation: CFC and HCFO free expanded polystyrene with poly face backer on door interior and with an energy value; R=6.84. R-value is in accordance with DASMA TDS-163.
      3. Finish: Exterior skin has a woodgrain embossed texture. Exterior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Almond.
        3. Exterior Color: Wicker Tan.
        4. Exterior Color: Sandtone.
        5. Exterior Color: Terratone.
        6. Exterior Color: Dark Brown.
        7. Exterior Color: Golden Oak.
        8. Exterior Color: Walnut.
        9. Exterior Color: Mahogany.
        10. Exterior Color: Two-Tone True White/Almond.
        11. Exterior Color: Two-Tone True White/Wicker Tan.
        12. Exterior Color: Two Tone True White/Sandtone.
        13. Exterior Color: Two Tone True White/Terratone.
        14. Exterior Color: Two Tone True White/Dark Brown.
        15. Exterior Color: Two Tone True White/Hunter Green.
        16. Exterior Color: Two Tone True White/Gray.
        17. Exterior Color: Two Tone Almond/True White.
        18. Exterior Color: Two Tone Almond/Wicker Tan.
        19. Exterior Color: Two Tone Almond/Sandtone.
        20. Exterior Color: Two Tone Almond/Terratone.
        21. Exterior Color: Two Tone Almond/Dark Brown.
        22. Exterior Color: Two Tone Almond/Hunter Green.
        23. Exterior Color: Two Tone Almond/Gray.
        24. Exterior Color: Two Tone Wicker Tan/True White.
        25. Exterior Color: Two Tone Wicker Tan/Almond.
        26. Exterior Color: Two Tone Wicker Tan/Sandtone.
        27. Exterior Color: Two Tone Wicker Tan/Terratone.
        28. Exterior Color: Two Tone Wicker Tan/Dark Brown.
        29. Exterior Color: Two Tone Wicker Tan/Hunter Green.
        30. Exterior Color: Two Tone Wicker Tan/Gray.
        31. Exterior Color: Two Tone Sandtone/True White.
        32. Exterior Color: Two Tone Sandtone/Almond.
        33. Exterior Color: Two Tone Sandtone/Wicker Tan.
        34. Exterior Color: Two Tone Sandtone/Terratone.
        35. Exterior Color: Two Tone Sandtone/Dark Brown.
        36. Exterior Color: Two Tone Sandtone/Hunter Green.
        37. Exterior Color: Two Tone Sandtone/Gray.
        38. Exterior Color: Two Tone Terratone/True White.
        39. Exterior Color: Two Tone Terratone/Almond.
        40. Exterior Color: Two Tone Terratone/Wicker Tan.
        41. Exterior Color: Two Tone Terratone/Sandtone.
        42. Exterior Color: Two Tone Terratone/Dark Brown.
        43. Exterior Color: Two Tone Terratone/Hunter Green.
        44. Exterior Color: Two Tone Terratone/Gray.
        45. Exterior Color: Two Tone Dark Brown/True White.
        46. Exterior Color: Two Tone Dark Brown/Almond.
        47. Exterior Color: Two Tone Dark Brown/Wicker Tan.
        48. Exterior Color: Two Tone Dark Brown/Sandtone.
        49. Exterior Color: Two Tone Dark Brown/Terratone.
        50. Exterior Color: Two Tone Dark Brown/Hunter Green.
        51. Exterior Color: Two Tone Dark Brown/Gray.
        52. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraphs are optional. Delete paragraphs not required.

* + - * 1. Alpine Lock.
        2. Blue Ridge Strap Hinge.
        3. Blue Ridge Handles.
        4. Canterbury Handles.
        5. Canterbury Ring Handles.
        6. Canterbury Strap Hinge.
        7. Versailles Handles.
        8. Versailles Hinge.
        9. Versailles Strap Hinge.
        10. Amarr Lock.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive..
        2. Amarr 3850, 3/4 HP belt drive with battery back-up.
    1. Classica CL3000 Residential Carriage House, 2 inches (51 mm) heavy duty triple layer insulated doors.
       1. Door Styles:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Lucern:
        2. Santiago:
        3. Tuscany:
        4. Valencia:
        5. Northampton:
        6. Bordeaux:
        7. Cortona:
      1. Size:

\*\* NOTE TO SPECIFIER \*\* Select the size required from the following paragraphs. Delete paragraphs not required.

* + - * 1. 9 feet by 7 feet (2.74 m by 2.13 m).
        2. 16 feet by 7 feet (4.88 m by 2.13 m).
        3. As indicated on the Drawings.
      1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Closed Arch style.
        2. Closed Square style.
        3. Danube window style.
        4. Madeira window style.
        5. Nile window style.
        6. Rhine window style.
        7. Seine window style.
        8. Thames window style.
        9. Obscure window style.
        10. Americana window style.
        11. Jardin window style.
        12. Trellis window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - 1. Window Lites: Framed lites with 1/8 inch (3 mm) thick clear tempered glass.
      2. Window Lites: Framed lites with 1/8 inch (3 mm) thick obscure tempered glass.
      3. Window Lites: Framed lites with insulating glass.

\*\* NOTE TO SPECIFIER \*\* The following window inserts are optional. Delete if not required.

* + - 1. Decorative Window Inserts: PVC divider trim, color to match door.
      2. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 24 gauge exterior and 27 gauge interior steel skins laminated to a CFC-free expanded polystyrene (EPS) foam core with a special urethane adhesive.
         1. Energy values: R=13.35. R-value is in accordance with DASMA TDS-163.
         2. End stiles 20 gauge galvanized steel.
         3. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         4. Stiles fastened to the section using the TOG-L-LOC joining system.
         5. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         6. Section joint formed to a weather tight seal.
      3. Finish: Exterior skin has a woodgrain embossed texture. Interior skin has a stucco embossed finish. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Almond.
        3. Exterior Color: Wicker Tan.
        4. Exterior Color: Sandtone.
        5. Exterior Color: Terratone.
        6. Exterior Color: Dark Brown.
        7. Exterior Color: Golden Oak.
        8. Exterior Color: Walnut.
        9. Exterior Color: Mahogany.
        10. Exterior Color: Two-Tone True White/Almond.
        11. Exterior Color: Two-Tone True White/Wicker Tan.
        12. Exterior Color: Two Tone True White/Sandtone.
        13. Exterior Color: Two Tone True White/Terratone.
        14. Exterior Color: Two Tone True White/Dark Brown.
        15. Exterior Color: Two Tone True White/Hunter Green.
        16. Exterior Color: Two Tone True White/Gray.
        17. Exterior Color: Two Tone Almond/True White.
        18. Exterior Color: Two Tone Almond/Wicker Tan.
        19. Exterior Color: Two Tone Almond/Sandtone.
        20. Exterior Color: Two Tone Almond/Terratone.
        21. Exterior Color: Two Tone Almond/Dark Brown.
        22. Exterior Color: Two Tone Almond/Hunter Green.
        23. Exterior Color: Two Tone Almond/Gray.
        24. Exterior Color: Two Tone Wicker Tan/True White.
        25. Exterior Color: Two Tone Wicker Tan/Almond.
        26. Exterior Color: Two Tone Wicker Tan/Sandtone.
        27. Exterior Color: Two Tone Wicker Tan/Terratone.
        28. Exterior Color: Two Tone Wicker Tan/Dark Brown.
        29. Exterior Color: Two Tone Wicker Tan/Hunter Green.
        30. Exterior Color: Two Tone Wicker Tan/Gray.
        31. Exterior Color: Two Tone Sandtone/True White.
        32. Exterior Color: Two Tone Sandtone/Almond.
        33. Exterior Color: Two Tone Sandtone/Wicker Tan.
        34. Exterior Color: Two Tone Sandtone/Terratone.
        35. Exterior Color: Two Tone Sandtone/Dark Brown.
        36. Exterior Color: Two Tone Sandtone/Hunter Green.
        37. Exterior Color: Two Tone Sandtone/Gray.
        38. Exterior Color: Two Tone Terratone/True White.
        39. Exterior Color: Two Tone Terratone/Almond.
        40. Exterior Color: Two Tone Terratone/Wicker Tan.
        41. Exterior Color: Two Tone Terratone/Sandtone.
        42. Exterior Color: Two Tone Terratone/Dark Brown.
        43. Exterior Color: Two Tone Terratone/Hunter Green.
        44. Exterior Color: Two Tone Terratone/Gray.
        45. Exterior Color: Two Tone Dark Brown/True White.
        46. Exterior Color: Two Tone Dark Brown/Almond.
        47. Exterior Color: Two Tone Dark Brown/Wicker Tan.
        48. Exterior Color: Two Tone Dark Brown/Sandtone.
        49. Exterior Color: Two Tone Dark Brown/Terratone.
        50. Exterior Color: Two Tone Dark Brown/Hunter Green.
        51. Exterior Color: Two Tone Dark Brown/Gray.
        52. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraphs are optional. Delete paragraphs not required.

* + - * 1. Alpine Lock.
        2. Blue Ridge Strap Hinge.
        3. Blue Ridge Handles.
        4. Canterbury Handles.
        5. Canterbury Ring Handles.
        6. Canterbury Strap Hinge.
        7. Versailles Handles.
        8. Versailles Hinge.
        9. Versailles Strap Hinge.
        10. Amarr Lock.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive..
        2. Amarr 3850, 3/4 HP belt drive with battery back-up.
    1. Heritage HR1000 Residential Traditional, 2 inches (51 mm) heavy duty, single layer doors.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections Design:
          1. Panel Design:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraphs not required.

Long Panel face.

Short Panel face.

Flush Panel face.

* + - * 1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

Closed Arch style.

Closed Square style.

Clear DecraTrim window style.

Obscure DecraTrim window style.

Stockton DecraTrim window style.

Prairie DecraTrim window style.

Cathedral DecraTrim window style.

Cascade DecraTrim window style.

Moonlite DecraTrim window style.

Waterford DecraTrim window style.

Wagon Wheel DecraTrim window style.

Sunray DecraTrim window style.

Full Sunray DecraTrim window style.

Thames DecraTrim window style.

Arched Thames DecraTrim window style.

Victorian DecraGlass window style.

Riviera DecraGlass window style.

Chalet DecraGlass window style.

Americana DecraGlass window style.

Heartland DecraGlass window style.

Mission DecraGlass window style.

Prairie DecraGlass window style.

Jardin DecraGlass window style.

Trellis DecraGlass window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - * 1. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick clear single strength glass.
        2. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick obscure single strength glass.
        3. Window Lites: Framed lites with insulating glass.
      1. Door Sections: 2 inches (51 mm) thick, single layer construction consisting of 24 gauge steel skin.
         1. End stiles 20 gauge galvanized steel.
         2. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         3. Stiles fastened to the section using the TOG-L-LOC joining system.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
      2. Finish: Exterior skin has a woodgrain embossed texture. Exterior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: White.
        2. Exterior Color: Almond.
        3. Exterior Color: Sandtone.
        4. Exterior Color: Dark Brown.
        5. Exterior Color: Golden Oak.
        6. Exterior Color: Walnut.
        7. Exterior Color: Mahogany.
        8. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraph is optional. Delete if not required.

* + - * 1. Amarr Lock.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive.
        2. Amarr 3280, 1/2 HP belt drive.
    1. Heritage HR2000 Residential Traditional, 2 inches (51 mm) heavy duty double layer insulated doors.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections Design:
          1. Panel Design:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraph not required.

Flush face.

Long Panel face.

Short Panel face.

* + - * 1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

Closed Arch style.

Closed Square style.

Obscure DecraTrim window style.

Stockton DecraTrim window style.

Prairie DecraTrim window style.

Cathedral DecraTrim window style.

Cascade DecraTrim window style.

Waterford DecraTrim window style.

Wagon Wheel DecraTrim window style.

Sunray DecraTrim window style.

Full Sunray DecraTrim window style.

Victorian DecraGlass window style.

Riviera DecraGlass window style.

Chalet DecraGlass window style.

Americana DecraGlass window style.

Heartland DecraGlass window style.

Mission DecraGlass window style.

Prairie DecraGlass window style.

Jardin DecraGlass window style.

Trellis DecraGlass window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - * 1. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick clear single strength glass.
        2. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick obscure single strength glass.
        3. Window Lites: Framed lites with insulating glass.
      1. Door Sections: 2 inches (51 mm) thick, construction consisting of 24 gauge steel skin.
         1. End stiles 20 gauge galvanized steel.
         2. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         3. Stiles fastened to the section using the TOG-L-LOC joining system.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
         6. Insulation: CFC and HCFO free expanded polystyrene with poly face backer on door interior and with an energy value; R=6.84. R-value is in accordance with DASMA TDS-163.
      2. Finish: Exterior skin has a woodgrain embossed texture. Exterior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: White.
        2. Exterior Color: Almond.
        3. Exterior Color: Sandtone.
        4. Exterior Color: Dark Brown.
        5. Exterior Color: Golden Oak.
        6. Exterior Color: Walnut.
        7. Exterior Color: Mahogany.
        8. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraph is optional. Delete if not required.

* + - * 1. Amarr Lock.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive.
        2. Amarr 3280, 1/2 HP belt drive.
    1. Heritage HR3000 Residential Traditional, 2 inches (51 mm) heavy duty triple layer insulated doors.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections Design:
          1. Panel Design:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraphs not required.

Flush face.

Long Panel face.

Short Panel face.

Ribbed Panel face.

* + - * 1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

Closed Arch style.

Closed Square style.

Obscure DecraTrim window style.

Stockton DecraTrim window style.

Prairie DecraTrim window style.

Cathedral DecraTrim window style.

Cascade DecraTrim window style.

Waterford DecraTrim window style.

Wagon Wheel DecraTrim window style.

Sunray DecraTrim window style.

Full Sunray DecraTrim window style.

Victorian DecraGlass window style.

Riviera DecraGlass window style.

Chalet DecraGlass window style.

Americana DecraGlass window style.

Heartland DecraGlass window style.

Mission DecraGlass window style.

Prairie DecraGlass window style.

Jardin DecraGlass window style.

Trellis DecraGlass window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - * 1. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick clear single strength glass.
        2. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick obscure single strength glass.
        3. Window Lites: Framed lites with insulating glass.
      1. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 24 gauge exterior and 27 gauge interior steel skins laminated to a CFC-free expanded polystyrene (EPS) foam core with a special urethane adhesive.
         1. Energy values: R=13.35. R-value is in accordance with DASMA TDS-163.
         2. End stiles 20 gauge galvanized steel.
         3. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         4. Stiles fastened to the section using the TOG-L-LOC joining system.
         5. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         6. Section joint formed to a weather tight seal.
      2. Finish: Exterior skin has a woodgrain embossed texture. Interior skin has a stucco embossed finish. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: White.
        2. Exterior Color: Almond.
        3. Exterior Color: Sandtone.
        4. Exterior Color: Dark Brown.
        5. Exterior Color: Golden Oak.
        6. Exterior Color: Walnut.
        7. Exterior Color: Mahogany.
        8. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraph is optional. Delete if not required.

* + - * 1. Amarr Lock.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive.
        2. Amarr 3280, 1/2 HP belt drive.
    1. Olympus OL3200 Residential Traditional, 2 inches (51 mm) heavy duty triple layer insulated doors.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections Design:
          1. Panel Design:

\*\* NOTE TO SPECIFIER \*\* Select the style required from the following paragraphs. Delete paragraph not required.

Short Panel face.

Long Panel face.

* + - * 1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

Closed Arch style.

Clear window style.

Obscure window style.

Stockton DecraTrim window style.

Prairie DecraTrim window style.

Cathedral DecraTrim window style.

Cascade DecraTrim window style.

Moonlite DecraTrim window style.

Waterford DecraTrim window style.

Wagon Wheel DecraTrim window style.

Sunray DecraTrim window style.

Full Sunray DecraTrim window style.

Thames DecraTrim window style.

Arched Thames DecraTrim window style.

Victorian DecraGlass window style.

Riviera DecraGlass window style.

Chalet DecraGlass window style.

Americana DecraGlass window style.

Heartland DecraGlass window style.

Mission DecraGlass window style.

Prairie DecraGlass window style.

Jardin DecraGlass window style.

Trellis DecraGlass window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - * 1. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick clear single strength glass.
        2. Window Lites: Framed lites with 1/8 inch (3.2 mm) thick double strength glass.
        3. Window Lites: Framed lites with insulating glass.
      1. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 25 gauge exterior and 27 gauge interior steel skins. Sections to be insulated with CFC free polyurethane, foamed in place by means of a continuous process.
         1. Energy values: R=15.67. R-value is in accordance with DASMA TDS-163.
         2. End stiles 20 gauge galvanized steel.
         3. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
      2. Finish: Exterior skin has a woodgrain embossed texture. Interior skin has a stucco embossed finish. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: White.
        2. Exterior Color: Almond.
        3. Exterior Color: Wicker Tan.
        4. Exterior Color: Sandtone.
        5. Exterior Color: Terratone.
        6. Exterior Color: Dark Brown.
        7. Exterior Color: Black.
        8. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware paragraph is optional. Delete if not required.

* + - * 1. Amarr Lock.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive.
        2. Amarr 3280, 1/2 HP belt drive.
    1. Designer's Choice DC3200 Residential Traditional, 2 inches (51 mm) heavy duty triple layer insulated doors.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections Design:
          1. Panel Design:

Bead Board Panel face.

LP Bead Board Panel face.

Recessed Panel face.

Raised Panel face.

* + - * 1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

Closed Arch style.

Clear window style.

Obscure window style.

Stockton DecraTrim window style.

Prairie DecraTrim window style.

Cathedral DecraTrim window style.

Cascade DecraTrim window style.

Moonlite DecraTrim window style.

Waterford DecraTrim window style.

Wagon Wheel DecraTrim window style.

Sunray DecraTrim window style.

Full Sunray DecraTrim window style.

Thames DecraTrim window style.

Arched Thames DecraTrim window style.

Victorian DecraGlass window style.

Riviera DecraGlass window style.

Chalet DecraGlass window style.

Americana DecraGlass window style.

Heartland DecraGlass window style.

Mission DecraGlass window style.

Prairie DecraGlass window style.

Jardin DecraGlass window style.

Trellis DecraGlass window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - * 1. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick clear single strength glass.
        2. Window Lites: Framed lites with 1/8 inch (3.2 mm) thick double strength glass.
        3. Window Lites: Framed lites with insulating glass.
      1. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 25 gauge exterior and 27 gauge interior steel. Sections to be insulated with CFC free polyurethane, foamed in place by means of a continuous process.
         1. Energy values: R=15.67. R-value is in accordance with DASMA TDS-163.
         2. End stiles 20 gauge galvanized steel.
         3. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
      2. Finish: Exterior skin has a woodgrain embossed texture. Interior skin has a stucco embossed finish. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: White.
        2. Exterior Color: Almond.
        3. Exterior Color: Wicker Tan.
        4. Exterior Color: Sandtone.
        5. Exterior Color: Terratone.
        6. Exterior Color: Dark Brown.
        7. Exterior Color: Black.
        8. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware is optional. Delete if not required.

* + - * 1. Amarr Lock.
        2. Alpine Lock.
        3. Blue Ridge Strap Hinge.
        4. Blue Ridge Handles.
        5. Castle Rock Handles.
        6. Castle Rock Strap Hinges.
        7. Canterbury Handles.
        8. Canterbury Ring Handles.
        9. Canterbury Strap Hinge.
        10. Versailles Handles.
        11. Versailles Hinge.
        12. Versailles Strap Hinge.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive.
        2. Amarr 3280, 1/2 HP belt drive.
    1. Amarr Lincoln LI3000 Residential Traditional, 2 inches (51 mm) heavy duty triple layer insulated doors.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections Design:
          1. Panel Design:

Short Panel face.

Long Panel face.

Flush Panel face.

Ribbed Panel face.

* + - * 1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

Closed Arch style.

Clear window style.

Obscure window style.

Stockton Decratrim window style.

Prairie Decratrim window style.

Cathedral Decratrim window style.

Cascade Decratrim window style.

Waterford Decratrim window style.

Wagon Wheel Decratrim window style.

Sunray Decratrim window style.

Full Sunray Decratrim window style.

Moonlite Decratrim window style.

Thames Decratrim window style.

Arched Thames Decratrim window style.

Victorian DecraGlass window style.

Riviera DecraGlass window style.

Chalet DecraGlass window style.

Americana DecraGlass window style.

Heartland DecraGlass window style.

Mission DecraGlass window style.

Prairie DecraGlass window style.

Jardin DecraGlass window style.

Trellis DecraGlass window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - * 1. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick clear single strength glass.
        2. Window Lites: Framed lites with 1/8 inch (3.2 mm) thick double strength glass.
        3. Window Lites: Framed lites with insulating glass.
      1. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 27 gauge exterior and interior steel. Sections to be insulated with CFC free polyurethane, foamed in place by means of a continuous process.
         1. Energy values: R=9.05 in accordance with DASMA TDS-163.
         2. End stiles 20 gauge galvanized steel.
         3. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
      2. Finish: Exterior skin has a woodgrain embossed texture. Interior skin has a stucco embossed finish. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Wicker Tan.
        3. Exterior Color: Sandtone.
        4. Exterior Color: Dark Brown.
        5. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:
         1. Amarr Lock.
      2. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive.
        2. Amarr 3280, 1/2 HP belt drive.
    1. Amarr Hillcrest HI3000 Residential Traditional, 2 inches (51 mm) heavy duty triple layer insulated doors.
       1. Door Size: As indicated on the Drawings.
       2. Door Sections Design:
          1. Panel Design:

Bead Board Panel face.

LP Bead Board Panel face.

Recessed Panel face.

Raised Panel face.

* + - * 1. Top Section style:

\*\* NOTE TO SPECIFIER \*\* Select the top section required from the following paragraphs. Delete paragraphs not required.

Closed style.

Clear window style.

Obscure Decratrim window style.

Stockton Decratrim window style.

Prairie Decratrim window style.

Cathedral Decratrim window style.

Cascade Decratrim window style.

Moonlite Decratrim window style.

Waterford Decratrim window style.

Wagon Wheel Decratrim window style.

Sunray Decratrim window style.

Full Sunray Decratrim window style.

Thames Decratrim window style.

Arched Thames Decratrim window style.

Victorian DecraGlass window style.

Riviera DecraGlass window style.

Chalet DecraGlass window style.

Americana DecraGlass window style.

Heartland DecraGlass window style.

Mission DecraGlass window style.

Prairie DecraGlass window style.

Jardin DecraGlass window style.

Trellis DecraGlass window style.

\*\* NOTE TO SPECIFIER \*\* The following windows are optional. Delete if not required.

* + - * 1. Window Lites: Framed lites with 3/32 inch (2.4 mm) thick clear single strength glass.
        2. Window Lites: Framed lites with 1/8 inch (3.2 mm) thick double strength glass.
        3. Window Lites: Framed lites with insulating glass.
      1. Door Sections: 2 inches (51 mm) thick, sandwich construction consisting of 27 gauge exterior and interior steel. Sections to be insulated with CFC free polyurethane, foamed in place.
         1. Energy values: R=9.05 in accordance with DASMA TDS-163.
         2. End stiles 20 gauge galvanized steel.
         3. Stiles galvanized steel and engineered for quick hardware attachment through prepunched extruded holes.
         4. Provide 18 gauge galvanized primed steel support plates 2-5/8 by 4-3/8 inches (67 by 111 mm) located under each hinge location, pre-punched for hinge attachment.
         5. Section joint formed to a weather tight seal.
      2. Finish: Exterior skin has a woodgrain embossed texture. Interior skin has a stucco embossed finish. Door exterior and interior pre-painted steel consisting of a hot dipped galvanized coating applied to the base metal, a 0.2 mil baked prime coat and an 0.8 mil baked polyester top coat. Interior coat 0.2 mil primer with a 0.3 mil white top coat. Inside of the exterior and interior skins to be finished with a 0.2 to 0.3 mil primer.

\*\* NOTE TO SPECIFIER \*\* Select color required from the following paragraphs. Delete paragraphs not required.

* + - * 1. Exterior Color: True White.
        2. Exterior Color: Wicker Tan.
        3. Exterior Color: Sandtone.
        4. Exterior Color: Dark Brown.
        5. Exterior Color: As select by the Architect from the manufacturer's standard selections.
      1. Hardware:

\*\* NOTE TO SPECIFIER \*\* The following hardware is optional. Delete if not required.

* + - * 1. Amarr Lock.
        2. Alpine Lock.
        3. Blue Ridge Handles.
        4. Blue Ridge Strap Hinges.
        5. Castle Rock Handles.
        6. Castle Rock Strap Hinges.
        7. Canterbury Handles.
        8. Canterbury Ring Handles.
        9. Canterbury Strap Hinges.
        10. Versailles Handles.
        11. Versailles Strap Hinges.
        12. Versailles Hinge.
      1. Openers:

\*\* NOTE TO SPECIFIER \*\* The following opener paragraphs are optional. Delete paragraphs not required.

* + - * 1. Amarr 3585, 3/4 HP belt drive.
        2. Amarr 3280, 1/2 HP belt drive.

\*\* NOTE TO SPECIFIER \*\* Select from the following residential steel door models as required for the project; delete models not used.

* 1. RESIDENTIAL ALUMINUM DOORS
     1. Amarr Vista VI1000 aluminum full-view door.
        1. Door Size: As indicated on the Drawings.
        2. Door Sections: 2 inches (51 mm) thick Class II clear anodized finish.
           1. Rails and stiles 6063-T6 extruded aluminum.
           2. Center stiles to be 2-3/4 inches (70 mm).
           3. End stiles to be 3-3/8 inches (86 mm).
           4. Top rails to be 3-7/8 inches (98 mm).
           5. Intermediate rails to be 2-1/2 inches (64 mm) per pair.
           6. Bottom rails to be 2-7/8 inches (73 mm).
           7. Stiles and rails secured with 5/16 inch (8 mm) diameter through rods.

\*\* NOTE TO SPECIFIER \*\* Select from the following color options; delete options not used.

* + - 1. Door Finish:
         1. Aluminum rails and stiles clear anodized finish.
         2. Aluminum rails and stiles dark bronze anodized finish.
         3. Aluminum rails and stiles black anodized finish.
         4. Aluminum rails and stiles white powder coat finish.

\*\* NOTE TO SPECIFIER \*\* Select the following option if custom powder coat color is required. Provide RAL color number and description. Custom powder coat color must meet AAMA 2604 minimum requirements to be used. Delete option if not used.

* + - * 1. Aluminum rails and stiles custom powder coat \_\_\_ RAL color number \_\_\_\_\_\_\_\_\_ that meets AAMA 2604 minimum standards.

\*\* NOTE TO SPECIFIER \*\* Select from the following options; delete options not used.

* + - 1. Solid Panels: 0.050 inch (1.3 mm) aluminum panels in continuous vinyl gasket and held in place with an aluminum bead.
      2. Perforated Aluminum Panels: Aluminum panels with 0.312 inch (7.9 mm) square perforations on 1/2 inch centers.
      3. Louvered Aluminum Panels: Aluminum panels with up to 7 columns of twelve 3 inch by 3/4 inch (76.2 mm by 19.1 mm) vents.
      4. Solid Insulated Panels: 1/2 inch (12.7 mm) overall panel composed of 0.050 inch (1.3 mm) aluminum interior and exterior panels with an extruded polystyrene (EPS) core sealed with glazing tape and an aluminum glazing bead.
      5. Glazing: 1/8 inch (3.2 mm) DSB glass panels in continuous vinyl gasket and held in place with an aluminum bead.
      6. Glazed Panels: 1/8 inch (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.
      7. Glazed Panels: 1/2 inch (12.7 mm) overall with insulated double pane 1/8 inch (3.2 mm) DSB glass panels sealed with glazing tape and an aluminum glazing bead.
      8. Glazed Panels: 1/2 inch (12.7 mm) overall with insulated double pane 1/8 inch (3.2 mm) Tempered glass panels sealed with glazing tape and an aluminum glazing bead.
      9. Openers:
         1. Amarr 3585, 3/4 HP belt drive.
         2. Amarr 3280, 1/2 HP belt drive.

\*\* NOTE TO SPECIFIER \*\* Edit the following to include the paragraph(s) applicable to the Insulated, Commercial or Aluminum door(s) and door sizes specified and indicated on the Drawings. Delete the paragraphs not required. Indicate the door size(s) required on the Drawings.

* 1. FABRICATI0N
     1. Commercial Insulated Steel Doors.
        1. Standard maximum size: Amarr 1000 up to 24 feet 2 inches wide by 24 feet 1 inch high (7.4 m by 7.3 m).
           1. Galvanized struts (truss bars): Provide on all doors 14 feet 2 inches (4.3 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        2. Standard maximum size: Amarr 1380 up to 18 feet 2 inches wide by 14 feet 1 inch high (5.5 m by 3.7 m).
           1. Galvanized struts (truss bars): Provide on all doors 14 feet 3 inches (4.3 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        3. Standard maximum size: Amarr 2700 up to 32 feet 2 inches wide by 24 feet 1 inch high (9.8 m by 7.3 m).
           1. Galvanized struts (truss bars): Provide on all doors 12 feet 4 inches (3.8 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        4. Standard maximum size: Amarr 2720 up to 16 feet 2 inches wide by 24 feet 1 inch high (4.9 m by 7.3 m).
           1. Galvanized struts (truss bars): Provide on all doors 12 feet 4 inches (3.8 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        5. Standard maximum size: Amarr 1350 up to 18 feet 2 inches wide by 14 feet 1 inch high (5.5 m by 3.7 m).
           1. Galvanized struts (truss bars): Provide on all doors 14 feet 3 inches (4.3 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        6. Standard Maximum Size: Amarr 2442: Width: 32 feet 2 inches (8.6m). Height: 24 feet 1 inch (7.3m)
           1. Galvanized Struts (Truss Bars): Provide on all doors 16 feet 2 inches (4.9 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
     2. Commercial Steel Doors.
        1. Standard maximum size: Amarr 2000 up to 26 feet 2 inches wide by 24 feet 1 inch high (8.0 m by 7.3 m).
           1. Galvanized struts (truss bars): Provide on all doors 14 feet 3 inches (4.3 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        2. Standard maximum size: Amarr 2400 up to 24 feet 2 inches wide by 24 feet 1 inch high (7.4 m by 7.3 m).
           1. Galvanized struts (truss bars): Provide on all doors 14 feet 3 inches (4.3 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        3. Standard maximum size: Amarr 2500 up to 20 feet 2 inches wide by 14 feet 1 inch high (6.15 m by 4.3 m).
           1. Galvanized struts (truss bars): Provide on all doors 14 feet 3 inches (4.3 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
     3. Commercial Aluminum Doors.
        1. Standard maximum size: Amarr 3500 up to 12 feet 2 inches wide by 12 feet 1 inch high (3.7 m by 3.7 m) for doors with aluminum or glass panels.
           1. Aluminum struts (truss bars): Provide on all doors wider than 16 feet 2 inches (4.9 m) and wider to prevent deflection of no more than 1/120 of the spanned width when in the open position.
        2. Standard maximum size: Amarr 3550
           1. Up to 24 feet 2 inches wide by 18 feet 1 inch high (7.4 m by 4.9 m) for doors with 1/8 inch glass panels.
           2. Up to 20 feet 2 inches wide by 18 feet 1 inch high (6.2 m by 4.7 m) for doors with 1/2 inch insulated double pane glass panels.
           3. Provide struts that do not block the viewable area of glazed panels on doors 16 feet 4 inches (5.0m) and wider to prevent deflection of no more than 1/120 of the span width when in the open position.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare opening to permit correct installation of door unit to perimeter air and vapor barrier seal.
   3. INSTALLATION
      1. Install in accordance with manufacturer's instructions. Doors to be interior face mounted on a prepared surface.
      2. Anchor assembly to wall construction and building framing without distortion.
      3. Securely brace door tracks suspended from structure. Secure tracks to structural members or solid backing only.
      4. Fit and align door assembly, tracks and operating hardware.
      5. Install perimeter weatherstripping.
      6. Adjust door assembly to smooth operation and in full contact with weatherstripping.
   4. CLEANING
      1. Clean doors, frames and glass.
      2. Remove labels and visible markings.
   5. PROTECTION
      1. Protect installed products until completion of project.
      2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION