



## SECTION 13129

### PREFABRICATED METAL BUILDINGS AND SHELTERS

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**\*\* NOTE TO SPECIFIER \*\* Austin Mohawk and Company, Inc.; Prefabricated or factory-built structures.**

This section is based on the products of Austin Mohawk and Company, Inc., which is located at:

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[ [Click Here](#) ] for additional information.

Austin Mohawk, Inc. was created in 2004 with the merging of Austin Fabricating, Inc., (buildings and shelters) and Mohawk Manufacturing, Inc. (canopies), two longtime sister companies. In their respective industries, each was among the oldest and most well respected manufacturers. Together, we expect to bring an even stronger and more integrated product line to our customers.

Austin Mohawk has spent more than 80 years building superior quality, prefabricated metal structures. Our product lineup includes pre-manufactured buildings, shelters, and metal canopies. Prefabricated or factory-built structures have significant advantages over site-built construction including economy, speed, quality, and flexibility. Our prefabricated metal buildings and booths can be custom built in aluminum or steel. From security buildings to cashier booths to parking booths, our custom built booths and buildings are modular, functional, and aesthetically pleasing. Our metal canopies and walkway covers are designed, fabricated and shipped for on-site erection.

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#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

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

A. Prefabricated Steel Shelters.

##### 1.2 RELATED SECTIONS

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

**others as required.**

- A. Section 03300 - Cast-In-Place Concrete: Concrete pad, foundations and anchor bolts.
- B. Section 02870 - Bollards: Metal, concrete and stone bollards.
- C. Section 05500 - Metal Fabrications.
- D. Section 08710 - Door Hardware.
- E. Section 07900 - Joint Sealers.
- F. Division 15 - Plumbing: Plumbing services and connections.
- G. Division 16 - Electrical: Electrical power service and wiring connections.

### 1.3 REFERENCES

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

- A. ASTM A 513 - Standard Specification for Electric-Resistance-Welded Carbon And Alloy Steel Mechanical Tubing.
- B. ASTM A 653/A - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- C. ASTM A 1008/A - Standard Specification for Steel Bars, Carbon and Alloy, Cold-Finished.
- D. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- E. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- F. ASTM B 632/B 632M - Standard Specification For Aluminum-Alloy Rolled Tread Plate.
- G. ASTM C-578 - Standard Specification For Rigid, Cellular Polystyrene Thermal Insulation.
- H. ASTM C 1048 - Standard Specification for Heat-Treated Flat Glass - Kind Hs, Kind Ft Coated and Uncoated Glass.
- I. ASCE 7 - Minimum Design Loads for Buildings and Other Structures
- J. APA PRP-108 or PFS PRP-133 - Performance Standards and Policies for Structural-Use Panels.
- K. ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities.
- L. NFPA 70 - National Electric Code.
- M. UL 752 - Standard for Bullet Resisting Equipment.
- N. IBC - International Building Code.

- O. NIJ National Institute of Justice (NIJ) Standard 0101.04 (Ballistic Resistance of Personal Body Armor).

#### 1.4 DESIGN REQUIREMENTS

**\*\* NOTE TO SPECIFIER \*\* Edit as required to suit project requirements. Standard loads are specified below, consult with manufacturer for requirements that exceed those specified as follows.**

- A. Provide factory built, prefabricated structures and shelters capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated.
- B. Wind Loads: Determine loads based on the following minimum design wind pressures:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.**

- 1. Uniform pressure of 50 lbf/sq ft, acting inward or outward (standard).
- 2. Uniform pressure as indicated on Drawings.
- 3. Wind Load:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required.**

- a. Buildings: 120 mph (2000 IBC Exp. C). (standard).
- b. Shelters: 90 mph. (standard).
- 4. Snow Loads: 50 lbf/sq ft. (standard).
- C. Seismic Performance: Provide factory built, prefabricated structures and shelters capable of withstanding the effects of earthquake motions determined according to:
  - 1. ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads".
- D. Thermal Movements: Provide factory built, prefabricated structures and shelters that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
  - 1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
- E. Electrical Devices: Devices UL listed with wiring bearing UL classification and conforming to the current NEC,

**\*\* NOTE TO SPECIFIER \*\* Adherence to applicable state and local codes is the responsibility of the Owner. For modular buildings, several state codes have requirements for third party design approval and inspection for compliance and/or the provision of P.E. stamped drawings. Verify the requirements for your jurisdiction. These costs, if applicable, vary significantly between states and are available from building manufacturer at additional cost. Typically metal buildings on Federal Reservations do not require State or Local approvals. Metal shelters do not generally require design approval and inspection for compliance. Delete the following Performance Requirement paragraph if not required.**

#### 1.5 PERFORMANCE REQUIREMENTS

**\*\* NOTE TO SPECIFIER \*\* The following states generally require third party design approval and inspection for modular buildings unless the project is a US Government or Agency job. Delete if not required:  
Alabama, Arizona, California, Colorado, Connecticut, Florida, Georgia, Idaho, Indiana,**

Iowa, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New Mexico, Nevada, North Carolina, Ohio, Oregon, Pennsylvania (if building will be occupied by more than 4 people), Rhode Island, South Carolina, Tennessee, Texas, Virginia, Washington, Wisconsin.

**\*\* NOTE TO SPECIFIER \*\* If a professional engineers' stamp is required on the shop drawings for metal buildings or shelters, please designate state. Delete if not required. Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Virgin Islands, Washington, West Virginia, Wisconsin, Wyoming.**

- A. Cooperate with regulatory agency or authority and provide data as requested by authority having jurisdiction.

#### 1.6 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Construction details, material descriptions, dimensions of individual components and profiles, and finishes.
  - 2. Preparation instructions and recommendations.
  - 3. Storage and handling requirements and recommendations.
  - 4. Installation methods.
- C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Certificates: Product certificates signed by the manufacturer certifying material compliance with specified performance characteristics and criteria, and physical requirements.
- F. Warranty documents specified herein.

#### 1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing prefabricated structures and shelters with a minimum documented experience of twenty years and with a quality assurance program utilizing an independent third party quality control firm with a 5-stage, 35 step, quality inspection for each system.
- B. Preinstallation Meetings: Conduct meetings to verify project requirements, substrate conditions, utility connections, manufacturer's installation instructions, and warranty requirements. Comply with Division 1 requirements.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect all components and accessories from corrosion, deformation, damage and

deterioration when stored at job site. Keep materials free from dirt and foreign matter.

## 1.9 PROJECT CONDITIONS

- A. 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.

## 1.10 WARRANTY

- A. Provide the manufacturer's 5 year limited warranty on anodized aluminum surfaces against oxidation and the manufacturers 20 year limited warranty against peeling, flaking and chipping of deck and fascia when properly maintained.

**\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if the stated accessory items are not required.**

- B. Provide manufacturer's warranties on all accessory items provided such as, but not limited to, air conditioning, lights, and heating units.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Austin Mohawk and Company, Inc., which is located at: 2175 Beechgrove Place ; Utica, NY 13501; Toll Free Tel: 800-765-3110; Tel: 315-793-3000; Fax: 315-793-9370; Email: [info@austinmohawk.com](mailto:info@austinmohawk.com); Web: [www.austinmohawk.com](http://www.austinmohawk.com)

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

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.2 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish specified, and as follows:
  - 1. Sheet: ASTM B 209.
  - 2. Extruded Shapes: ASTM B 221.
  - 3. Rolled Tread Plate: ASTM B 632/B 632M, Alloy 6061-T4 or 6061-T6.
- B. Cold-Rolled Steel Sheet: ASTM A 1008/A, Commercial Steel (CS), Type B.
- C. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A, commercial quality, G90 (Z275) coating designation; mill phosphatized.
- D. Aluminum Treadplate: 1/8-inch aluminum plate conforming to ASTM B 209.
- E. Steel Mechanical Tubing: ASTM A 513, welded steel mechanical tubing.
- F. Expanded Polystyrene (EPS) Core: Minimum of .95 pcf complying with ASTM C-578 Type 1.
- G. Oriented Strand Board (OSB): Standard Grade; minimum physical properties conforming to APA PRP-108.

- H. Clear Tempered Float Glass: ASTM C 1048, Kind FT, Condition A, Type I, Class 1, Quality q3.
- I. Ballistics-Resistant Glazing: Comply with requirements of UL 752 and/or NIJ.
- J. Anchorages: Anchor bolts, as specified in Section 03300.

2.3 PREFABRICATED STEEL SHELTERS

A. Size:

**\*\* NOTE TO SPECIFIER \*\* Select the size required from the following paragraphs and delete those not required. The maximum shipping width for custom sizes is 16 feet.**

- 1. 3 feet by 4 feet.
- 2. 4 feet by 4 feet.
- 3. 4 feet by 5 feet.
- 4. 4 feet by 6 feet.
- 5. 4 feet by 7 feet.
- 6. 4 feet by 8 feet.
- 7. 4 feet by 9 feet.
- 8. 4 feet by 10 feet.
- 9. 5 feet by 5 feet.
- 10. 5 feet by 6 feet.
- 11. 5 feet by 7 feet.
- 12. 5 feet by 8 feet.
- 13. 5 feet by 9 feet.
- 14. 5 feet by 10 feet.
- 15. 6 feet by 6 feet.
- 16. 6 feet by 8 feet.
- 17. 6 feet by 10 feet.
- 18. 6 feet by 12 feet.
- 19. 6 feet by 15 feet.
- 20. 8 feet by 8 feet.
- 21. 8 feet by 10 feet.
- 22. 8 feet by 12 feet.
- 23. 8 feet by 14 feet.
- 24. 8 feet by 16 feet.
- 25. 10 feet by 10 feet.
- 26. 10 feet by 12 feet.
- 27. 10 feet by 14 feet.
- 28. 10 feet by 16 feet.
- 29. 10 feet by 20 feet.
- 30. 12 feet by 12 feet.
- 31. 12 feet by 14 feet.
- 32. 12 feet by 16 feet.
- 33. 12 feet by 18 feet.
- 34. 12 feet by 20 feet.
- 35. Custom: \_\_\_\_\_ by \_\_\_\_\_.

B. Height: Nominal outside height 96 inches (2438 mm). Interior floor to ceiling height 88 inches (2235 mm).

C. Prefabricated with 14 gauge (1.78 mm) mechanical tube, welded framing system. Exterior smooth and flat with no exposed fasteners on building exterior.

1. Shelter Style:

**\*\* NOTE TO SPECIFIER \*\* Select the shelter style required from the following paragraphs and delete those not required. Coordinate custom styles with Austin Mohawk.**

- a. Classic.
- b. Barrel Vault.
- c. Parkway Full Glass.
- d. Colonial.
- e. Half Glass.
- f. Statesman.
- g. Classic Full Glass.
- h. Tempo.
- i. Poolville.
- j. Classic Half Glass.
- k. Professional.
- l. St. James.
- m. Vanity Fair.
- n. Custom as indicated on Drawings.

2. Roof Type:

**\*\* NOTE TO SPECIFIER \*\* Select the roof type required from the following paragraphs and delete those not required. Flat deck roof is standard.**

- a. Flat Deck Roof with 3 inch high overlapping deck pans
- b. Standing Seam Hip
- c. Expanded Metal Hip
- d. Cedar Shingle Hip
- e. Asphalt Shingle Hip
- f. Standing Seam Mansard
- g. Cedar Shingle Mansard
- h. Asphalt Mansard
- i. Optional Decorative Sill Reveal
- j. Optional Decorative Corner Arches
- k. As Indicated on Drawing

3. Roof Overhang:

**\*\* NOTE TO SPECIFIER \*\* Select the overhang required from the following paragraphs and delete those not required.**

- a. 4 inch overhang (standard).
- b. 6 inch overhang.
- c. 12 inch overhang.
- d. 24 inch overhang.
- e. As indicated on the Drawings.

D. Frame Construction: Framing shall be 14 gauge (1.78 mm) or heavier mechanical tube. All joints shall be MIG welded.

1. Finish: Provide manufacturer's epoxy primer with a urethane finish as follows:

**\*\* NOTE TO SPECIFIER \*\* Select the color required from the following paragraphs and delete those not required. Custom colors are available at additional cost.**

- a. Color as selected from manufacturers standard colors.
- b. Custom color as selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* Glazed wall panels are optional, delete if not required. Panels are provided full height unless lower wall panels are also specified. If required, select the glazing required and delete those not required. Clear 3/16 inch tempered glass is Standard.**

E. Glazed Window Panels: Glazed within wall panel system extrusions and not fastened to the exterior wall. Glass sealed with concealed gasket system.

- 1. 3/16 inch (4.76 mm) thick, clear tempered safety glass.
- 2. 3/16 inch (4.76 mm) thick, gray tinted tempered safety glass.
- 3. 3/16 inch (4.76 mm) thick, bronze tinted tempered safety glass.
- 4. 3/16 inch (4.76 mm) thick, green tinted tempered safety glass.

5. 1/4 inch (6 mm) thick, clear polycarbonate.

**\*\* NOTE TO SPECIFIER \*\* Lower wall panels are optional, delete if not required.**

F. Lower Wall Panel: Exterior face of manufacturers standard 18 gauge galvanized steel, an E.P.S. insulation core and a 18 gauge galvanized steel interior face. Panels shall be MIG welded into place.

1. Overall thickness:

**\*\* NOTE TO SPECIFIER \*\* Select the thickness required and delete the one not required.**

- a. 2 inches (50.8 mm).
- b. 3 inches (76.2 mm).

2. Finish: Interior and exterior panel faces shall have a manufacturer's epoxy primer with a urethane finish as follows:

**\*\* NOTE TO SPECIFIER \*\* Select the color required from the following paragraphs and delete those not required. Custom colors are available at additional cost.**

- a. Color as selected from manufacturers standard colors.
- b. Custom color as selected by the Architect.

G. Ceiling: Interior ceiling, foam core panel system providing smooth flat interior. Fabricate of 24 gauge prefinished steel painted white with expanded polystyrene core.

H. Roof: Galvanized steel, 20 to 24 gauge, G-60 zinc coating, interlocking pan sections, 3 inches (76.2 mm) high varying widths and capable of supporting a minimum 40 psf (1915 Pa) live load. Roof drains into full perimeter gutter system.

I. Anchoring: Shelter requires a 6 inch (152 mm) thick (minimum) concrete pad 12 inch (305 mm) (minimum) larger than the shelter in length and width. Shelter anchored to the pad using height adjustable steel base plates with minimum 2 inch by 1/4 inch (51 mm to 6.3 mm) expansion anchors. Concrete pad by others.

**\*\* NOTE TO SPECIFIER \*\* Shelter accessories are optional, select the accessories required from the following paragraphs and delete the items not required.**

## 2.4 SHELTER ACCESSORIES

A. Ash receptacles: Stainless Steel.

B. Benches:

**\*\* NOTE TO SPECIFIER \*\* Select the bench(s) required from following paragraphs and delete those not required.**

1. 6 foot (1.82 m) mill finish aluminum bench.
2. 8 foot (2.44 m) mill finish aluminum bench.
3. 10 foot (3.05 m) mill finish aluminum bench.
4. 12 foot (3.66 m) mill finish aluminum bench.

C. Lighting Fixtures: Supplied only for wiring and installation by others.

**\*\* NOTE TO SPECIFIER \*\* Select the light fixture(s) required from following paragraphs and delete those not required.**

1. Hi Abuse Fixture, Linear Fluorescent 40 Watts, Lamp Quantity 2, 120 V. Length 49.38 inches (1254 mm), width 9.25 inches (235 mm), depth 3.38 inches (85.8 mm), white, cold weather.
2. Flood light, QTZ, RAB QF500W 120V, White.
3. Flood light, QTZ, RAB QF500W 120V, Bronze.

**\*\* NOTE TO SPECIFIER \*\* Select the switch required from following paragraphs and delete those not required.**

4. Provide single-pole switch mounted adjacent to door to control lighting



- fixtures.  
5. Provide photoelectric controller.

**\*\* NOTE TO SPECIFIER \*\* Select the heating unit required from following paragraphs and delete those not required.**

- D. Heating Unit: Wall-mounted, thermostatically controlled:
1. 230 /208V, 13,000/10,000 Btu, electric fan force, surface mounted electric heater.
  2. Infrared Heater, 3.2KW, 60Hz 208V, single phase 15.4 amp or three phase 8.9 amp with a BtuH 10922, beam pattern .

**\*\* NOTE TO SPECIFIER \*\* Select the air conditioning/ventilating equipment required from following paragraphs and delete those not required.**

- E. Thru-wall Air Conditioning:
1. 9,900 Btu, 110V.
  2. 9,900 Btu, high mount, 110V.
- F. Thru-wall Heating/Air Conditioning:
1. 11,600/11,400 btu with electric heat 230/208V.
- G. Wall Exhaust Fan:
1. Duct diameter 10-3/8 Inches.
  2. Motor 120 V, 1625 RPM, 1.7 amps, with air flow @ 0.000 inch static pressure 480.

## 2.5 FABRICATION

- A. Fabricate factory built, prefabricated structures and shelters completely in factory.
- B. Preglaze windows and doors at factory.
- C. Prewire factory built, prefabricated structures and shelters at factory, ready for connection to service at Project site.
- D. Separate dissimilar materials using nonconductive tape, paint, or other material not visible in finished work.
- E. Fabricate factory built, prefabricated structures and shelters for forklift unloading under base of booth with forklift pockets in base of booth or welded in place concealed lifting lugs at roof that are suitable for placement of the structure on prepared foundations.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine supporting foundations for compliance with manufacturer's requirements, including installation tolerances and other conditions affecting performance of supporting members.
- B. Check installed anchor bolts for accuracy. Verify that bearing surfaces are ready to receive the work.

**\*\* NOTE TO SPECIFIER \*\* Select the following paragraph if required. Delete if not required.**

- C. Verify the rough-in of required mechanical and electrical services prior to placement of the structure.

- D. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Separate dissimilar materials using nonconductive tape, paint, or other material not visible in finished work.
- C. Place on prepared concrete foundations and slabs provided as specified under Section 03300.
- D. Anchor securely in place, allowing for required movement, including expansion and contraction.

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

- E. Connect mechanical services as specified under Division 15.
- F. Connect electrical services as specified in Division 16.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION