\*\* NOTE TO SPECIFIER \*\* Panel Built Inc.; In-plant Offices, Mezzanine Platforms, Security Booths, Ballistic Rated Buildings and Cleanrooms.  
This section is based on the products of Panel Built Inc., which is located at:  
302 Beasley St. P. O. Box 2658  
Blairsville, GA 30514  
Toll Free Tel: 800-636-3873  
Tel: 706-745-6540  
Fax: 800-594-3245  
Email:[request info (info@panelbuilt.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Panel+Built+Inc.&coid=45639&rep=&fax=800-594-3245)  
Web:<http://www.PanelBuilt.com>  
[[Click Here](https://www.arcat.com/arcatcos/cos45/arc45639.html)] for additional information.  
Panel Built was founded in 1995 by brothers Pat and Mike Kiernan, and began with the construction of pre-manufactured buildings. Today, Panel Built offers a complete line of custom modular offices, mezzanines, security booths, pre-assembled exterior buildings, and cleanrooms. All our multiple product lines are produced on-site, in four state-of-the-art manufacturing facilities. We offer "A Better Way to Create Space" for all of your building projects.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Prefabricated metal buildings.
    2. Towers.
  1. REFERENCES

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

* + 1. American Institute of Steel Construction (AISC):
       1. Manual of Steel Construction-Allowable Stress Design.
    2. American National Standards Institute (ANSI).
    3. American Society of Civil Engineers:
       1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
    4. ASTM International (ASTM):
       1. ASTM A36 - Standard Specification for Carbon Structural Steel.
       2. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
       3. ASTM A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
       4. ASTM A513 - Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing.
       5. ASTM A529 - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality.
       6. ASTM A572 - Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
       7. ASTM A653/A - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
       8. ASTM A1008/A - Standard Specification for Steel Bars, Carbon and Alloy, Cold- Finished.
       9. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
       10. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
       11. ASTM B632/B632M - Standard Specification for Aluminum-Alloy Rolled Tread Plate.
       12. ASTM C578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
       13. ASTM C1048 - Standard Specification for Heat-Treated Flat Glass - Kind Hs, Kind Ft Coated and Uncoated Glass.
       14. ACI 318-14 – Building Code Requirements for Structural Concrete.
       15. AWS D1.1 – Structural welding code - Steel
    5. Building Officials Code Administrators International (BOCA).
    6. International Building Code (IBC):
       1. Latest edition.
    7. National Fire Protection Association (NFPA):
       1. NFPA 70 - National Electric Code.
    8. Occupational Safety & Health Administration (OSHA):
       1. Regulations shall be met or exceeded in the design.
    9. Underwriters Laboratories (UL):
       1. UL 752 - Standard for Bullet Resisting Equipment.
    10. National Institute of Justice
        1. NIJ 0108.01 – Ballistic Resistant Protective Materials
    11. Uniform Building Code (UBC).
  1. SUBMITTALS
     1. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.

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

* + 1. Verification Samples: Two representative units of each type, size, pattern and color.
    2. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.
    3. Certificates: Product certificates signed by the manufacturer certifying material compliance with specified performance characteristics and criteria, and physical requirements.
    4. Warranty documents specified herein.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if Prefabricated Steel Structures are not required.

* + 1. Adherence to applicable portions of state and local Shelter codes is the responsibility of the owner. Shelter manufacturer shall not be responsible for permits, special engineering calculations, or architectural type drawings unless otherwise notified in writing 3 weeks prior to release of bid document.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* 1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  3. 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 recommended limits.
  4. WARRANTY
     1. Manufacturer's standard limited warranty unless indicated otherwise.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Kontek Industries, 805 McCombs Ave, Kannapolis, NC 28083 www.kontekindustries.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 \_\_\_\_\_\_\_\_\_\_\_.
  1. GUARD BOOTHS
     1. 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.

* + - 1. Capable of withstanding effects of gravity loads and the following loads and stresses within limits and under conditions indicated.
      2. Design Loads: Determine loads based on following minimum design wind, loads, snow loads, and pressures:

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

* + - * 1. Uniform Pressure: 50 lbs per sq ft (244 kg per sq m) acting inward or outward.
        2. Uniform Pressure: As indicated on Drawings.
        3. Wind Load on Buildings: 120 mph; Exp. C.
        4. Wind Load on Buildings: As indicated on Drawings.
        5. Snow Loads: 50 lbs per sq ft (244 kg per sq m).
        6. Snow Loads: As indicated on Drawings.
      1. Seismic Performance: Capable of withstanding effects of seismic events according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads".
      2. Thermal Movements: Resulting from following maximum range of change range ambient and surface temperatures. Prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
         1. Temperature Range of Change:

Ambient: 120 degrees F (67 degrees C)

Material Surfaces: 180 degrees F (100 degrees C)

* + - 1. Electrical Devices: UL listed with wiring bearing UL classification and conforming to 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. Delete the following Performance Requirement paragraph if not required.

* + 1. 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.

* + 1. 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.
       1. Cooperate with regulatory agency or authority and provide data as requested by authority having jurisdiction.

\*\* NOTE TO SPECIFIER \*\* If a professional engineers' stamp is required on shop drawings please designate state. Delete if not required.

* + - 1. 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.
      2. Shop drawings are to be stamped and certified by a Professional Engineer.
         1. State where building will be located: \_\_\_\_\_\_\_\_.
    1. Materials:
       1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish specified.
          1. Sheet: ASTM B209.
          2. Extruded Shapes: ASTM B221.
          3. Rolled Tread Plate: ASTM B632/B 632M, Alloy 6061-T4 or 6061-T6.
       2. Cold-Rolled Steel Sheet: ASTM A1008/A, Commercial Steel (CS), Type B.
       3. Zinc-Coated (Galvanized) Steel Sheet: ASTM A653/A, commercial quality, G90 (Z275) coating designation; mill phosphatized.
       4. Aluminum Tread Plate: 1/8 inch (3 mm) aluminum plate per ASTM B209.
       5. Steel Mechanical Tubing: ASTM A513, welded steel mechanical tubing.
       6. Expanded Polystyrene (EPS) Core: Minimum of .95 pcf complying with ASTM C578 Type 1.
       7. Ballistics-Resistant Glazing: Comply with requirements of UL 752 and/or NIJ.
       8. Anchorages: Anchor bolts as indicated on drawings.
    2. Prefabricated Steel Buildings:
       1. Outside Height: 96 inches (2438.4 mm).
       2. Interior Floor to Ceiling Height: 90 inches (2286 mm).
       3. Dimensions: 3 x 5 feet (915 x 1524 mm)
       4. Dimensions: 3 x 6 feet (915 x 1829 mm)
       5. Dimensions: 4 x 4 feet (1219 x 1219 mm).

\*\* 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. Dimensions: 4 x 6 feet (1219 x 1829 mm).
      2. Dimensions: 4 x 8 feet (1219 x 2438 mm).
      3. Dimensions: 5 x 8 feet (1524 x 2438 mm)
      4. Dimensions: 5 x 10 feet (1524 x 3048 mm
      5. Dimensions: 6 x 6 feet (1829 x 1829 mm)
      6. Dimensions: 6 x 8 feet (1829 x 2438 mm)
      7. Dimensions: 6 x 10 feet (1829 x 3048 mm)
      8. Dimensions: 6 x 12 feet (1829 x 3658 mm)
      9. Dimensions: 8 x 8 feet (2438 x 2438 mm)
      10. Dimensions: 8 x 10 feet (2438 x 3048 mm)
      11. Dimensions: 8 x 12 feet (2438 x 3658 mm)
      12. Dimensions: 8 x 16 feet (2438 x 4877 mm)
      13. Dimensions: \_\_\_\_ x \_\_\_\_ feet (\_\_\_\_ x \_\_\_\_ mm).
      14. Dimensions: As indicated on Drawings
      15. Prefabricated Welded Framing System: Min 16 gauge (1.52 mm) mechanical tube.

\*\* NOTE TO SPECIFIER \*\* Delete any of the following options not required.

* + - * 1. Lifting Lugs: Provided

\*\* NOTE TO SPECIFIER \*\* Single sliding door one side is standard. Delete door types not required.

* + - 1. Door Type: Sliding door on one side.
      2. Door Type: Sliding doors on both sides.
      3. Door Type: Swinging doors.
      4. Door Type: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* Fixed widows with one horizontal sliding window are standard. Delete window types not required.

* + - 1. Window Type: Fixed windows 360 and one slider with insect screen and positive locking device.
      2. Window Type: Additional horizontal sliding windows.
      3. Window Type: Vertical Sliding Windows.
      4. Window Type: One Cashier Window.
      5. Window Type: As indicated on Drawings.

\*\* NOTE TO SPECIFIER \*\* 1/8 inch clear tempered safety glass, is standard. Delete glazing types not required. Delete Low E if not required.

* + - 1. Glazing Type: 1/8 inch (3 mm) thick, clear tempered safety glass.
      2. Glazing Type: 3/16 inch (4.5 mm) thick, clear tempered safety glass.
      3. Glazing Type: 1/4 inch (6 mm) thick, clear tempered safety glass.
      4. Glazing Type: 3/4 inch (19 mm) thick, insulated, clear tempered safety glass.
      5. Glazing Type: 1/4 inch (6 mm) thick, clear polycarbonate.
      6. Glazing Type: As indicated on Drawings.
      7. Glazing Type: Ballistic protection as specified.
      8. Glazing Tint: Gray.
      9. Glazing Tint: Bronze.
      10. Glazing Tint: Green.
      11. Glazing Tint: Clear.
      12. Low E.

\*\* NOTE TO SPECIFIER \*\* Flat deck roof is standard. Delete roof types if required. Decorative corner arches are optional. Delete if not required.

* + - 1. Roof Type: Flat Deck Roof painted.
      2. Roof Type: EPDM.
      3. Roof Type: Standing seam.
      4. Roof Type: As indicated on Drawing.

\*\* NOTE TO SPECIFIER \*\* 4 inch (102 mm) is standard. Delete roof overhang options not required.

* + - 1. Roof Overhang: 4 inch (102 mm).
      2. Roof Overhang: 9 inch (229 mm).
      3. Roof Overhang: 12 inch (305 mm).
      4. Roof Overhang: 24 inch (610 mm).
      5. Roof Overhang: As indicated on drawing.
      6. Finish: Manufacturer's standard epoxy primer with a urethane finish as follows:

\*\* NOTE TO SPECIFIER \*\* Custom colors are available. Exterior and Interior can also be different colors.

* + - * 1. Color: As selected by the Architect from manufacturer's standard colors.
        2. Exterior and the interior to be the same color.
      1. Base and Floor. Floor to be mounted to 2 to 4 inch (51 to 102 mm) minimum steel tube or channel steel base frame.

\*\* NOTE TO SPECIFIER \*\* Delete finished floor options not required.

* + - * 1. Finished Floor: Nonskid powder coated steel tread plate.
        2. Finished Floor: Nonskid galvanized steel tread plate.
        3. Finished Floor: Nonskid Aluminum tread plate.
        4. Finished Floor: Commercial Vinyl Tile.
        5. Finished Floor: Rubber anti-fatigue tile.
        6. Finished Floor: As indicated on Drawings.
      1. Wall Panel:
         1. Mig welded to frame.
         2. Mechanically fastened to frame.
         3. Exterior Face: 16 gauge painted steel.
         4. Exterior Face: As indicated on drawings.
         5. Core: Polyisocyanurate insulation.
         6. Core: Closed cell spray foam.
         7. Core: E.P.S. insulation.
         8. Interior Face: 16 gauge painted steel.
         9. Interior Face: As indicated on drawings.

\*\* NOTE TO SPECIFIER \*\* Delete overall thickness options not required.

* + - * 1. Overall Thickness: 2 inches (51 mm) R-10.
        2. Overall Thickness: 2 inches (76 mm) R-12.
        3. Overall Thickness: R-value as indicated on drawing.

\*\* NOTE TO SPECIFIER \*\* Delete interior ceiling options not required.

* + - 1. Interior Ceiling: Prefinished steel, 16 gauge painted steel. Insulation above ceiling rating to be specified.
      2. Interior Ceiling: None: Bottom of roof panel shall be finished ceiling.
      3. Building Accessories:
         1. Trailer Package: Building base with integrated trailer hitch and axle assembly.

Stabilizing jacks

Qty 3

As required

Lights: Brake and turn signal.

No lights

\*\* NOTE TO SPECIFIER \*\* Delete building accessories not required Coordinate selection of doors and ballistic windows with selections identified in previous building paragraphs.

* + - * 1. Sliding Doors: Horizontal sliding unit with steel frame. Top hung.

Half Glass Steel Sliding Door (WxH): 30 x 82 inches (762 x 2082 mm) with mortised laminated hook bolt lock capable of being keyed.

Glazing: 1/8 inch (3.18 mm) thick, clear tempered safety glass.

As indicated on the Drawings.

* + - * 1. Swinging Doors: 1-3/4 inches (44 mm) thick, tubular-frame design.

Commercial Grade Steel Swing Door (WxH): 36 x 80 inches (813 x 2032 mm) with 12 x 12 inch (305 x 305 mm) lite.

Single bore steel lever handle lockset. Keyed entry with interior push button.

Commercial Grade Steel Swing Door (WxH): 36 x 80 inches (813 x 2032 mm). No Glass.

As indicated on the Drawings.

* + - * 1. Ballistic Fixed Windows: Glazed with interior stops which are mechanically fastened to interior face of window rough openings. Glass sealed with glazing silicone or butyl tape.

\*\* NOTE TO SPECIFIER \*\* Delete ballistic resistant glazing options not not required.

Ballistic Resistant Glazing, UL 752: Level I.

Ballistic Resistant Glazing, UL 752: Level II.

Ballistic Resistant Glazing, UL 752: Level III.

Ballistic Resistant Glazing, UL 752: Level IV.

Ballistic Resistant Glazing, UL 752: Level V.

Ballistic Resistant Glazing, UL 752: Level VI.

Ballistic Resistant Glazing, UL 752: Level VII.

Ballistic Resistant Glazing, UL 752: Level VIII.

Ballistic Resistant Glazing NIJ: Level I.

Ballistic Resistant Glazing NIJ: Level II.

Ballistic Resistant Glazing NIJ: Level IIA.

Ballistic Resistant Glazing NIJ: Level III.

Ballistic Resistant Glazing NIJ: Level IIIA.

Ballistic Resistant Glazing NIJ: Level IV.

\*\* NOTE TO SPECIFIER \*\* Ballistic resistant wall panels and doors are optional. Delete if not required

* + - * 1. Ballistic Protection: Ballistic resistant wall panels, doors and glazing in accordance to the following level:

\*\* NOTE TO SPECIFIER \*\* Delete ballistic resistant glazing options not not required.

Ballistic Resistant Glazing, UL 752: Level I.

Ballistic Resistant Glazing, UL 752: Level II.

Ballistic Resistant Glazing, UL 752: Level III.

Ballistic Resistant Glazing, UL 752: Level IV.

Ballistic Resistant Glazing, UL 752: Level V.

Ballistic Resistant Glazing, UL 752: Level VI.

Ballistic Resistant Glazing, UL 752: Level VII.

Ballistic Resistant Glazing, UL 752: Level VIII.

Ballistic Resistant Glazing NIJ: Level I.

Ballistic Resistant Glazing NIJ: Level II.

Ballistic Resistant Glazing NIJ: Level IIA.

Ballistic Resistant Glazing NIJ: Level III.

Ballistic Resistant Glazing NIJ: Level IIIA.

Ballistic Resistant Glazing NIJ: Level IV.

* + - * 1. Electrical Power Service: In accordance with NEC Standards.

Service: 100 amp, 120/240 VAC, single-phase, main breaker 3 wire service with 14 circuit breaker panel

As shown on drawings or specified by architect.

* + - * 1. Wiring Method: Copper wiring in surface mounted 1/2 inch (13 mm) minimum EMT conduit.
        2. Wiring Method: Copper wiring No. 12 min MC cable concealed in panel and attached to surface mounted 2 x 4 boxes at receptacle and switch locations.
        3. Wiring Devices: One 120-V 20 amp duplex receptacle.
        4. Wiring Devices: One 120-V 20 amp GFCI power duplex receptacle with tester on exterior.
        5. Wiring Devices: One telephone/computer prep 3/4 inch (19 mm) conduit to junction box.
        6. Indoor Lighting:

Ceiling-mounted LED light fixtures:

48 inches (1219 mm) long.

Acrylic lens: 48 inches (1219 mm).

As indicated on drawing.

Single-pole switch mounted adjacent to door to control lighting fixtures.

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

* + - * 1. Outdoor Lighting:

\*\* NOTE TO SPECIFIER \*\* Delete lighting fixtures not required.

Flood Light: LED 120 V. White.

Flood Light: LED 120 V. Bronze.

\*\* NOTE TO SPECIFIER \*\* Delete switch option not required.

Switch: Single-pole mounted adjacent to door to control lighting fixtures.

Switch: Photoelectric controller.

* + - * 1. Heating Unit: Wall-mounted and thermostatically controlled.

\*\* NOTE TO SPECIFIER \*\* Delete heater unit option not required.

Electric Heater: Fan-forced operation enclosed in enameled steel cabinet. 110 V, 5120 btu (1500 W).

Electric Heater: Fan-forced operation. Surface mounted. 230/208 V, 13,000/10,000 Btu.

Infrared Heater: 1500 watt 120 V.

\*\* NOTE TO SPECIFIER \*\* Delete the air conditioning/ventilating equipment not required.

* + - * 1. Thru-wall Air Conditioning: 110 V. 9,900 btu.
        2. Thru-wall Air Conditioning: 110 V. 9,900 btu, high mount.
        3. Thru-wall Heating/Air Conditioning: 230/208V. 9,000/11,100 btu (2.64/3.25 kW) Heat Pump
        4. Thru-wall Heating/Air Conditioning: 12,000/11,100 btu (3.52/3.22 kW) Heat Pump
        5. Thru-wall Heating/Air Conditioning: 18,000/11,100 btu (5.27/3.22 kW) Heat Pump
        6. Thru-wall Heating/Air Conditioning: 9,300/11,000 btu (2.72/3.22 kW) AC with Electric Heat
        7. Thru-wall Heating/Air Conditioning: 12,000/11,100 btu (3.52/3.22 kW) AC with Electric Heat.
        8. Thru-wall Heating/Air Conditioning: 18,000/11,100 btu (5.27/3.22 kW) AC with Electric Heat.
        9. Roof Mount Air Conditioning: 110V, 13,500 btu (3.96 kW).
        10. Roof Mount Heating/Air Conditioning: 13,500 btu (3.96 kW) with 5,600 btu (1.64 kW) electric heat, 110V.
        11. HVAC Cooling And Heating; Mini Split System: Mounted on wall/ceiling of modular building. Compressors will be mounted externally on roof or on a concrete pad external to building. Properly seal conduit and refrigerant lines at penetrations through the walls or roof. All HVAC and related items to be in accordance with local and state building codes.
        12. Wall Exhaust Fan: 180 cfm (5.1 cu m per min).

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

* + - * 1. Counters: Laminate Type.
        2. Counters: Painted Steel.
        3. Counters: Stainless Steel.

\*\* NOTE TO SPECIFIER \*\* Delete storage drawers not required.

* + - * 1. Storage Drawers: Thru-wall transaction drawer, stainless steel housing with bullet resistant plastic drawer, counter mounted.
        2. Storage Drawers: Locking storage drawer, mounted underside of counter.
        3. Storage Drawers: Locking Cash Drawer, mounted underside of counter.

\*\* NOTE TO SPECIFIER \*\* Restrooms are optional. Delete if not required. If required, delete plumbed fixtures option not required.

* + - * 1. Restrooms:

Plumbed Fixtures: Installed on site.

Plumbed Fixtures: Installed at the factory with service hookups in field by others.

\*\* NOTE TO SPECIFIER \*\* Delete restroom package not required.

Restroom Package; non-ADA: With following items wired and installed.

Lighting with wall switch.

Thru wall exhaust fan.

Heater: Wall mounted electric with fan forced operation. 5120 btu (1500 W) thermostat in an enamel coated 20 gauge steel cabinet.

Swing door with privacy lock.

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

Fixtures: Standard toilet.

Fixtures: Wall mounted lavatory.

Fixtures: One Toilet tissue holder.

Fixtures: Paper towel holder.

Fixtures: Mirror.

Fixtures: Water Heater. 2.5 gal (9.5 L).

Fixtures: Instantaneous water heater.

Restroom Package; ADA: With following items wired and installed:

Lighting with wall switch.

Thru wall exhaust fan.

Heater: Wall mounted electric with fan forced operation, 5120 btu (1500 W), thermostat in an enamel coated 20 gauge steel cabinet.

Swing door with privacy lock.

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

Fixtures: ADA elongated toilet.

Fixtures: ADA wall mounted lavatory.

Fixtures: One 18 inch (457 mm) grab bar.

Fixtures: One 36 inch (914 mm) grab bar.

Fixtures: One 42 inch (1067 mm) grab bar.

Fixtures: One Toilet tissue holder.

Fixtures: Paper towel holder.

Fixtures: Mirror.

Fixtures: Water Heater. 2.5 gal (9.5 L).

Fixtures: Instantaneous water heater.

* + - 1. Fabrication:
         1. Fabricate structures and shelters completely in factory.
         2. Fabricate panels at factory and install at project site.
         3. Pre-glaze windows and doors at factory.
         4. Prewire structures and shelters at factory; ready for connection to service at Project site.
         5. Fabricate for forklift unloading under base of booth with forklift pockets in base of booth or welded in place or lifting lugs at roof that are suitable for placement of the structure on prepared foundations.
  1. TOWERS
     1. Basis of Design: Custom Designed Prefabricated Free-Standing Factory Towers supplied by Kontek industries.
        1. Free-standing. Will not use existing walls or building columns for vertical support.
        2. Installation: Capable of being erected, dismantled, and relocated with hand tools.
     2. Construction:
        1. Structural Steel: Meet or exceed requirements of American Institute of Steel Construction (AISC), Manual of Steel Construction-Allowable Stress Design.
        2. Bar Joist Design: Meet or exceed requirements of Steel Joist Institute (SJI) "Standard Specification for Open Web Steel Joists, K-Series.
        3. OSHA (Occupational Safety & Health Administration) Regulations: Met or Exceed.
        4. Other Codes Specified by Customer: Building Official's Code of America (BOCA), Uniform Building Code (UBC), or International Building Code (IBC), will be met by manufacturer.
     3. Loads and Deflections:
        1. Design shall meet the customer's requirement for live load.
        2. Structure shall be designed to withstand horizontal forces as required for the seismic zone at the site of installation.
        3. Stairs and landings shall be designed for a live load of 100 psf.
        4. Special requirements for concentrated loads shall be met by the manufacturer as specified by the customer.
     4. Structure:
        1. Railing: 1-1/2 inch (38 mm) x 11 gauge square tube, minimum.
           1. Kick Plate: 4 inch (102 mm) high x 14 gauge steel.
           2. Standard Handrail Designs: Include OSHA, IBC Factory Use Group, IBC Mercantile Use Group, and BOCA.
        2. Columns:
           1. Spacing: Meet field conditions and requirements of customers.
           2. Size: W6 minimum wide flange beam.
           3. Base Plates: 12 x 12 x 1 inch (305 x 305 x 16 mm). Anchor Bolts: four minimum, 1/2 inch (13 mm) diameter.
        3. Structural Steel, Support Members and Bar Joists:
           1. All field connections must be bolted.
        4. Stairs: Bolted construction.
           1. Standard Designs: Include OSHA, IBC Factory Use Group, IBC Mercantile Use Group, and BOCA
     5. Materials:
        1. Structural Steel Beams: Hot rolled wide flange meeting ASTM A36.
           1. Minimum yield strength of 36,000 psi (248211 kPa): FY: 36 KSI.
        2. Columns: Hot rolled wide flange meeting ASTM A36.
           1. Minimum yield strength of 36,000 psi (242811 kPa): FY: 36 KSI.
        3. Decks: One of the following Designs:

\*\* NOTE TO SPECIFIER \*\* Delete design options not required. Other decking options available as requested by customer. Contact manufacturer for more information.

* + - * 1. Bar Grating: Minimum of welded steel with openings 4 x 1-3/16 inch (102 x 30 mm) and 1 x 1/8 (25 x 3 mm) inch bearing bars, attached to structure with saddle anchors set over bearing bars with tek screws and painted black.
        2. Steel Plate: Minimum of 1/8 inch (3 mm) thick, plain or diamond plate meeting ASTM A36.
      1. Structural Bolts: A325.
    1. Exterior finish:

\*\* NOTE TO SPECIFIER \*\* Special colors and powder coating bar joists can be done upon request. .

* + - 1. Structural beams, columns, landings, handrail and gates are powder coated.
         1. Color: As determined by the Architect from Manufacturer's standard colors.
      2. Structural beams, columns, landings, handrail and gates are hot dipped galvanized.
      3. Structural beams, columns, landings, handrail and gates are primed and painted.
         1. Primer: red oxide
         2. Paint: color and system as indicated on drawings
    1. Foundation:
       1. Precast concrete: Minimum 4,000 psi compression strength at 28 days.
          1. Minimum 3 inches of cover over reinforcing steel.
          2. Broom finish surface.
       2. Modular
          1. Include cast in lifting devices.
          2. Installed above grade on surface.
       3. Minimum 4 inch conduit cast in foundation.
          1. Conduit to extend 4 inch above top of foundation.
       4. Tower baseplate Anchors:
          1. Cast in threaded rod minimum ½ inch diameter F1554-Gr55
          2. Expansion anchors minimum ½ inch diameter.
          3. Adhesive anchors minimum ½ in diameter.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly constructed and prepared.
      2. 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.

* + 1. Verify the rough-in of required mechanical and electrical services prior to placement of the structure.
    2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
  1. PREPARATION
     1. Clean surfaces thoroughly prior to installation.
     2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
  2. INSTALLATION
     1. Install in accordance with manufacturer's instructions approved submittals and in proper relationship with adjacent construction.
     2. Separate dissimilar materials using nonconductive tape, paint, or other material not visible in finished work.
     3. Anchor securely in place, allowing for required movement, including expansion and contraction.

\*\* NOTE TO SPECIFIER \*\* Delete if Prefabricated steel structures are not required.

* + 1. Prefabricated Steel Structures:
       1. Install on flat level concrete pad per manufacturer's placement drawings. Position units over utility stub-ups. Verify Shelter is level and anchor.
          1. Anchors are supplied on site, by others. Comply with local codes.

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

* 1. FIELD QUALITY CONTROL
     1. Field Inspection: Coordinate field inspection in accordance with appropriate site personnel.

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

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate personnel.
  1. CLEANING AND PROTECTION
     1. Clean products in accordance with the manufacturers’ recommendations.
     2. Protect installed products until completion of project.
     3. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION