

SECTION 101400

SIGNAGE

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following sign requirements:
1. Provide all signs in accordance with, and as required by Federal, state, or local building code or ordinances including ADAAG – Americans with Disabilities Act Accessibility Guidelines, 2010 Standards, as issued by the US Department of Justice. Code compliant signage shall include, but not be limited to, building egress, elevator operation, fire safety regulations, and health and safety requirements.
 2. Provide identification signage at entrances to all enclosed rooms, except storage closet spaces within enclosed rooms. Where applicable, major area identification signs shall include, but not be limited to, common use spaces, lounges, multi-purpose spaces, food service spaces, etc. Where applicable, general room identification signs shall include, but not be limited to, electrical and telecom rooms and closets, utility and mechanical spaces, restrooms, offices, work space rooms, and resident rooms and suites.
 3. Provide directional, orientation, and wayfinding signage at key circulation decision points as necessary to allow easy navigation to major destinations, and throughout the facility.
 4. Provide supplemental signage including:
 - a. Special area identification
 - b. Building dedication
 - c. Building address
 - d. Primary building identification
 - e. Other
- B. The items below are included as part of this specification:
1. Core building sign type drawings, including overall sign shape, size, type styles, symbols, graphic layouts, colors, and finishes.
 2. Supplemental sign type drawings and descriptions.
- C. Sustainable Design Intent: Comply with project requirements intended to achieve sustainable design, measured and documented according to the LEED Green Building Rating System, of the US Green Building Council. Refer to Section 018110,

SUSTAINABLE DESIGN REQUIREMENTS for certification level and certification requirements.

- D. Related Work: The following items are not included in this Section and are specified under the designated Sections:
1. Divisions 21-26 for labels, tags, and nameplates for fire protection, plumbing, HVAC and electrical systems and equipment.
 2. Division 26 - Electrical for illuminated, self-luminous, and photoluminescent exit sign units.
- E. Bid Proposal and Quantities
1. The sign subcontractor shall submit a lump sum bid proposal to design, fabricate, supply, and install all sign elements described in this Section, including the following itemized fees and costs:
 - a. A lump sum fixed fee for the Delegated Design tasks listed in section 2.2 below.
 - b. A lump sum cost to fabricate, supply, and install all sign elements described in this section. Lump sum costs will include any and all costs associated with the work.
 2. The sign subcontractor shall submit an itemized list indicating all Core Building and Supplemental Sign Types, together with quantities for each, which are included in their bid proposal.

1.3 ACTION SUBMITTALS

- A. Delegated Design Submittal: The sign subcontractor shall submit the following Delegated Design submittals to the General Contractor prior to fabrication, under the provisions of Section 01 33 00: Submittal Procedures.
1. Construction shop drawings for all sign types showing shape, size, type styles, symbols, dimensioned graphic layouts, methods of graphic application, colors, materials, and fabrication and mounting details.
 2. Elevations showing placement of typical sign elements for each unique mounting condition, for each sign type.
 3. Sign message schedule.
 4. Sign location plans.
 5. Full size, or half size printed proofs for each sign type and each unique layout.
 6. Two samples of each of the following Sign Types: \$SIGNTYPES\$
 7. Two color chip samples of each color and finish of exposed materials, minimum 4" x 4", applied to actual sign material substrates.
- B. As-Built Drawings: Upon completion of the installation, the sign subcontractor will submit as-built drawings, and maintenance instructions to the facility representative. The sign subcontractor will supply to the facility representative re-order instructions for replacement of sign parts such as name strips, and for the ordering of new signs.

1.4 INFORMATION SUBMITTALS

- A. The sign subcontractor shall submit the names of five projects, completed in the last three years, which are similar in scope to this project. The sign subcontractor shall provide information for each project including contact name, telephone number, and email address.

1.5 QUALITY ASSURANCE

- A. Sign Design and Programming: The sign subcontractor shall retain qualified sign design professionals with experience in all phases of sign program design and documentation, including, but not limited to: typographic layout, material and finish selection, sign message schedule compilation, and sign construction detailing.
- B. Regulatory Requirements: Comply with all federal, state and local laws, codes, ordinances, and regulations related to signs, including ADAAG – Americans with Disabilities Act Accessibility Guidelines, 2010 Standards, as issued by the US Department of Justice.
- C. Permits: The sign subcontractor shall obtain and pay for any permits required for signs, if these permits are separate from the basic building permit obtained by the General Contractor.
- D. Sustainable Design Intent: In the selection of the products and materials of this section, as well as for the entire project, preference will be given to those with the following characteristics:
 - 1. Water based.
 - 2. Water-soluble.
 - 3. Can be cleaned with water.
 - 4. Non-flammable.
 - 5. Biodegradable.
 - 6. Low, or preferably no, volatile organic compound (VOC) content.
 - 7. Manufactured without compounds that contribute to smog in the lower atmosphere.
 - 8. Manufactured without compounds that contribute to ozone depletion in the upper atmosphere.
 - 9. Manufactured without compounds that contribute to smog in the lower atmosphere.
 - 10. Manufactured without compounds that contribute to ozone depletion in the upper atmosphere.
 - 11. Do not contain methylene-chloride.
 - 12. Do not contain chlorinated hydrocarbons.
 - 13. Contains the most possible post-consumer or post-industrial content.

1.6 PROJECT CONDITIONS

- A. The sign subcontractor shall notify the General Contractor of any special anchoring provisions, requiring wood blocking, in walls and ceilings prior to sign installation, and before walls and ceilings are closed.

- B. The sign subcontractor shall be responsible for field measuring for each sign element that fits into or is constrained within an architectural space.
- C. All work will be performed in accordance with a schedule approved by the General Contractor. All sign installation work will be completed prior to occupancy permit inspections. Temporary signs are not included.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle signage in accordance with manufacturer's recommendations. Pack each sign so as to prevent scratches and surface damage. Every effort should be made to use biodegradable and recyclable packaging materials.
- B. If stored at the site, all materials will be in an elevated, dry location, protected by a waterproof covering. The location will be coordinated with the General Contractor.
- C. Store all adhesives at room temperatures of no less than 55 degrees.

1.8 WARRANTY

- A. **Manufacturer's Warranty:** Provide manufacturer's standard warranty against defects in materials and workmanship for a period of three years from the date of installation. Warranty is void if product is not installed, cleaned, or maintained according to the manufacturer's recommendations.

PART 2 - PRODUCTS

2.1 BASIS OF DESIGN

- A. **Basis-of-Design:** Subject to compliance with requirements, the products shown for each sign category are intended to be the basis of design. Equal sign products will not be acceptable unless they are submitted to the Architect for approval prior to receipt of bids. All work will be as shown on the Contract Drawings.
- B. **Acceptable Signage Subcontractors:** Subject to compliance with requirements, prequalified acceptable sign subcontractors include, but are not limited to, the following:
 - 1. Acme Signage
123 Oak Street
Anytown, NY 10010
888-555-1212
<http://www.company.com>
 - 2. Better Sign Systems
80 Washington Avenue
Anytown, NY 10010
888-555-1212
<http://www.company.com>
 - 3. Signs of Wonder
100 Main Street
Anytown, NY 10010
888-555-1212

2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: The sign subcontractor shall retain qualified sign design professionals to perform the following tasks:
1. Review building documentation, including but not limited to: floorplans, elevations, door schedule, finish schedule, stair plans and sections, life safety diagrams, and applicable code summary.
 2. Analyze building circulation and identify decision points.
 3. Compile list of sign types proposed for the project to address code requirements, wayfinding, and operational needs.
 - a. Follow best practices for sign programming taking into account building type, user profile, and owner disposition, to facilitate safe and easy navigation throughout the facility.
 - b. Utilize those sign types in the Encompass "Groton" family which are most appropriately suited to the functional needs of the work.
 - c. Identify additional signage elements, not included in the Encompass "Groton" family, as may be necessary to meet unique building operational or code-mandated requirements.
 4. Identify and define locations for the following:
 - a. Room, space, and area identification signs.
 - b. Code, regulatory, and informational signs.
 - c. Directional and orientation signs.
 5. Prepare sign message schedule.
 - a. The sign subcontractor will meet with the Architect and the Owner, as necessary, to compile all text and graphic content for each sign element.
 - b. The resulting sign message schedule shall be submitted by the sign subcontractor, and will list each individual sign, together with a unique sign location number, sign type designation, sign message and graphic content, quantity, and notes of clarification, if any.
 - c. All text and graphics on sign type drawings are shown for illustration purposes only and are not illustrative of final graphic sign content.
 - d. All room numbering and room name information shown on the architectural plans is for general reference only and is not illustrative of the final graphic sign content.
 6. Prepare graphic artwork
 - a. The sign subcontractor will be responsible for production of all graphic artwork for all sign types, including orientation and wayfinding floor plans.

- b. The sign subcontractor will meet with the Architect and the Owner, as necessary, to confirm the content of all floor plans including the location of fire safety equipment and preferred evacuation routes.
- 7. Prepare sign location plans indicating approximate position of each sign with its unique location number.
- 8. Design all Supplemental Signage, described in Section 2.4, to be compatible with, and similar to, core building signage, with respect to typography, graphic layout, materials, finishes, and construction details.

2.3 CORE BUILDING SIGNAGE, INTERIOR

- A. Interior core building signs will be the Encompass "Groton" GRO-9910 sign family, encompasssign.signviewonline.com
 - 1. Wall mount plaques will be supplied and installed by sign subcontractor, and will include the following:
 - a. Acrylic wall mount plaques with digitally printed graphics
 - b. Fabricated acrylic insert plaques with removable paper inserts
 - c. Thermoformed acrylic plaques with raised graphics and Braille
 - d. Project wall mount plaques will include acrylic faces with surface applied vinyl graphics, and extruded aluminum mounting brackets
 - e. All components to be cut on CNC equipment and all dimensional and alignment tolerances shall not exceed +/- .005".
 - 2. Vinyl graphics will be supplied and installed by sign subcontractor, and applied to designated architectural surfaces.

2.4 SUPPLEMENTAL SIGNAGE

- A. Special area identification signage shall be as shown on the construction drawings, or as described below, and will include the following:
 - 1. None
- B. Building address signage shall be as shown on the construction drawings, or as described below, and will include the following:
 - 1. None
- C. Primary building identification signage shall be as shown on the construction drawings, or as described below, and will include the following:
 - 1. None
- D. Other miscellaneous supplemental signage shall be as shown on the construction drawings, or as described below, and will include the following:
 - 1. None

2.5 MATERIALS

- A. The following is a list of primary materials to be used on this project:

1. Acrylic shall be clear Acrylite cast acrylic sheet, smooth both faces, as manufactured by Evonik Industries, www.acrylite.net
 2. Paint shall be acrylic polyurethane MAP, as manufactured by Matthews Paint, Delaware, OH, www.matthewspaint.com
 3. Markerboard shall be Acrylite Markerboard, as manufactured by Evonik Industries, www.acrylite.net.
 4. Silicone adhesive shall be 732 Multipurpose RTV Sealant, as manufactured by Dow Corning, Midland, MI, www.dowcorning.com
 5. Foam tape shall be VHB 5952, as manufactured by 3M Company, St. Paul, MN, www.3M.com
 6. Pressure sensitive vinyl graphic film shall be Scotchcal 77125 Electrocut Graphic Film, as manufactured by 3M Company, St. Paul, MN, www.3M.com
- B. All other secondary materials shall be as shown on the construction drawings.

2.6 FABRICATION

- A. The following general fabrication standards will apply:
1. All graphic elements, including text and symbols, will be reproduced from computer generated digital artwork. All vector artwork created for graphic reproduction will be output at a minimum resolution of 1200 dpi. All computer generated non-vector artwork will be saved at 300 dpi, at full size, and will be output at a minimum resolution of 1200 dpi.
 2. All graphic elements, including text and symbols, will be reproduced with sharp inside and outside corners and edges. No rounded corners or edges shall be permitted.
 3. All graphic elements will be produced in such a manner that all edges and corners of letterforms, symbols, color bands, rules, and borders, are true and clean. All printed inks shall be applied evenly without pinholes, scratches, banding, or orange-peel texture.
 4. All graphic elements produced by direct to substrate digital printing shall be output on a Mimaki JFX 200 flat bed printer, utilizing Mimaki LUS-150 UV ink system, or approved equal.
 5. All painted components will be spray finished in such a manner that exposed surfaces are free of dust under the paint surface, as well as free of orange-peel texture, runs, color streaks, or build-up at edges. Sharp edges and corners will be broken prior to painting. All surfaces shall be prepared, primed, and finished in accordance with the published application instructions of the paint manufacturer.
 6. All Braille on tactile signs shall be accurate Grade 2 translations, and shall conform to the provisions of ADAAG and ICC/ANSI A117.1 with regard to size, position, spacing, capitalization and profile (domed top) characteristics.
 7. Thermoformed acrylic plaques with raised graphics and Braille shall be produced utilizing a high-pressure thermoforming process at 4,000 psi, and 350 degrees F, and shall form a monolithic component.

8. All fabrication workmanship shall be of best quality in every particular, complete in every detail, and strictly in accordance with best practices. All exposed and fabricated joints shall be tight and completely smooth. All sign faces shall be free of cupping, oil-canning, or other deflections.

PART 3 - EXECUTION

3.1 SITE INSPECTION

- A. Examine mounting surfaces, areas, and conditions with the General Contractor present. Check for compliance with requirements for installation, and other factors affecting the performance of the work.

3.2 INSTALLATION

- A. All signs shall be shop-fabricated, and where practical, delivered to the site completely assembled. All signs that cannot be delivered fully assembled shall be erected and assembled so that all parts fit accurately with hairline joints.
- B. Install all signs according to the manufacturer's recommendations, and as indicated on approved submittals.
- C. Install all signs plumb and level at specific locations shown on the sign location plans and construction drawings.
- D. Exposed fasteners will not be permitted, unless specifically shown and required on the construction drawings, or approved by the Architect.

3.3 CLEANING

- A. Clean all signs following installation with a mild, non-streaking, wall cleaning solution for normal dirt and fingerprints. Care should be taken not to scratch the sign surface.

3.4 CONSTRUCTION WASTE MANAGEMENT

- A. Separate and recycle materials and packaging in accordance with the project Waste Management Plan. Remove from the site any materials and packaging not included in the Waste Management Plan.

END OF SECTION