

PROJECT MANUAL

BEVERLY HILLS CIVIC CENTER
BEVERLY HILLS, CALIFORNIA
90210

October 11, 2012

Designer:
FOLLIS DESIGN
927 Weimar Avenue
Altadena, CA 91001

DIVISION 00

PROCUREMENT AND CONTRACTING
REQUIREMENTS

TABLE OF CONTENTS

00001 Project Title Page
00010 Table of Contents

DIVISION 1 GENERAL REQUIREMENTS

Section 01100 Summary of Work
01100A Substitution Request Form
01500 Temporary Facilities and Controls

DIVISION 2

Not Used

DIVISION 3 CONCRETE

Section 03300 Cast-In-Place Concrete

DIVISION 4 MASONRY

Section 04450 Stone Veneer

DIVISION 5 - 9

Not Used

DIVISION 10 SPECIALTIES

Section 10400 Signs and Graphics

DIVISION 11 - 16

Not Used

END OF TABLE OF CONTENTS

DIVISION 01

GENERAL REQUIREMENTS

SECTION 01100
SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY

- A. The Project consists of signage and graphics for Beverly Hills Civic Center in Beverly Hills, California, in compliance with the Contract Documents and Code requirements.

1.02 REFERENCE STANDARDS

- A. When reference standards and specifications published by technical societies, institutions, associations and governmental agencies, such as ASTM, ANSI, ACI and the like are referenced in the Specifications, the applicable edition, except as listed in subparagraph 1 and 2 below, shall be the latest date of issue 30 days before bids are received, when bids are requested, or on effective date of the Agreement if there are no bids.

- 1. Where a publication date follows the standard.
- 2. Where date of issue are listed in governing building code and regulations.

- B. No provisions of any referenced standards or specifications (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of the City, or Contractor, or any of their consultants, agents or employees from those set forth in the Contract Documents.

- C. Unless the Contract Documents indicate otherwise:

- 1. Where conflict exists between referenced documents and Contract Documents, or between referenced documents, the one having more stringent requirements shall apply.
- 2. Refer requirements that are different but apparently equal, and uncertainties as to which quality level is more stringent to the City for a decision before proceeding with the affected work, including preparation of shop drawings.

- D. Where both a standard and a brand name are specified for a product in the Project Manual, the proprietary product named shall conform to or exceed the requirements of the specified reference standard. The listing of a trade name in a Project Manual shall not be construed as warranting that such product conforms to the respective reference standard.

- E. Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity.

1.03 DEFINITIONS

- A. In addition to other definitions included in these Specifications, the following applies to the Work:
1. **Approved, approved equal, or equal**, mean as approved and accepted by the City as defined in the General Conditions and this Section.
 2. **As necessary** means essential to the completion of the Work.
 3. **As required** means as required by the Contract Documents.
 4. **As selected, as approved, as directed** or words of similar import mean as selected by, as approved by, or as accepted by the City. No implied meaning shall be interpreted to extend the City's responsibility into the Contractor's area of Contractor's supervision.
 5. **As shown, as detailed, as indicated** and words of similar import mean as indicated on the Drawings.
 6. **Building Department and Authorities Having Jurisdiction**: All agencies, individually or collectively, charged by statute with administration/enforcement of the requirements of the Building Code at the Project location.
 7. **Computer Data Base** means the digital computer data issued by the City as a part of the Contract Documents, including graphic artwork files, 2-dimensional and 3-dimensional computer model and possibly drawing files in CADD format.
 8. **Concealed** means embedded in masonry, concrete or other construction, installed within furred spaces, within a wall/partitions or above suspended ceilings, in trenches, in crawl spaces, or in enclosures.
 9. **Division** means Division of these Specifications except where the obvious intent is the act or process of dividing. **Divisions** are groups of related Sections.
 10. **Equipment** means a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.
 11. **Exposed** means not installed underground or concealed as defined above.
 12. **Exterior** means a space that does not meet the definition for "interior" below.
 13. **Fabricated** means items specifically assembled or made out of selected materials to meet individual design requirements for the Project.
 14. **Furnish** (materials) means to supply and deliver to the Project ready for installation and in operable condition.

15. **Include/including** means include/including, without limitation.
16. **Install** (services or labor) means to place in final position, complete, anchored, connected, and in operable condition.
17. **Interior** means a space completely enclosed by walls, solid door(s), floor and ceiling.
18. **Manufactured** applies to standard units usually mass-produced.
19. **Manufacturer's directions, instructions, recommendations, specifications** means manufacturer's written directions, instruction, recommendations, specifications.
20. **Match** means providing a portion of the Work using the same product, technique, sequence, dimensions, finishes, color, texture, and degree of craftsmanship as (1) another portion of the Work, (2) existing conditions adjacent to the new portion of the Work, (3) as an approved sample, range of samples, or mock-up or sample panel, or (4) as a control sample in the City's possession.
21. **Materials** are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
22. **Named products** are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature current as of the date of the Contract Documents.
23. **Product(s)** means new materials, machinery, components, systems, fixtures, equipment, and terms of similar intent.
24. **Provide** means to supply, fabricate, deliver, place, and connect, complete in-place, ready for operation and use. When neither **furnish, install** nor **provide** is stated, **provide** is implied.
25. **Section** means Section of these Specifications, except where the obvious intent is one of several components, a piece. **Section** is usually a basic unit of Work.
26. **Shall** is mandatory.
27. **Similar** means a portion a the Work that matches the whole or part of another portion of the Work but has a different geometric configuration.
28. **Submit, submittal, submission** mean submit to the City for review, unless otherwise stated.

29. **Symmetrical** means a portion of the Work which matches adjacent work, or itself, but reversed about centerline(s) or the axis of a surface or a space.

1.04 SHOP DRAWINGS/PROJECT DATA/SAMPLES

- A. General: The following supplements the General Conditions for Construction.
1. Submit shop drawings, product data and samples required by the Specifications for the City's review before proceeding with the work affected by the submittals.
- B. Shop drawings: Identify details by reference to sheet and detail numbers shown on Drawings.
- C. Product data:
1. Manufacturer's standard schematic drawings: Modify drawings to delete information not applicable to Project and supplement standard information to provide additional information applicable to Project.
 2. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data:
 - a. Clearly mark each copy to identify pertinent materials, products or models.
 - b. Show dimensions and clearances required, performance characteristics and capacities, and wiring diagrams and controls.
- D. Samples: Unless otherwise specified, submit samples of sufficient size and quantity to clearly illustrate characteristics of product or material, and full range of colors.
1. Whenever possible, provide color and texture samples on actual product specified.
- E. Submission requirements: Schedule submissions at least 7 days before dates reviewed submittals will be needed by the Contractor.
1. Submit one reproducible transparency and 2 blue line prints of shop drawings, and number of copies of project data which Contractor requires for distribution, plus 3 copies which will be retained by City.
 2. Submit 3 samples, unless specified otherwise.
- F. Resubmission requirements:
1. Shop drawings: Revise initial drawings as required and resubmit as specified for initial submittal. Indicate on drawings any changes which have been made other than those requested by City.

2. Product data and samples: Submit new data and samples as required for initial submittal.
- G. Project file: Keep copy of reviewed shop drawings and product data in the Project file.
- H. Other submittals: With closeout submittals, submit the following to the City.
1. Project record documents as specified below.
 2. Warranties and bonds.

1.05 PRODUCT AND SUBSTITUTIONS

- A. In agreeing to the terms and conditions of the Contract the Contractor has accepted the responsibility to schedule and verify that the specified products will be available when needed to comply with the accepted construction schedule, and to place orders for all required materials in timely manner to meet the accepted construction schedule, without delay in the Work.
- B. It is the intent of the Contract Documents that products incorporated into the Project comply with the Contract Documents and the following:
1. New and undamaged.
 2. Best of their respective kind.
 3. Furnished in a timely manner, in ample quantities to facilitate proper and timely execution of the Work.
 4. Of one manufacturer for each specific purpose, insofar as practicable.
 5. Complete with all accessories, trim finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
- C. Minimum quantities or quality levels: In every instance the quantity or quality level shown or specified is the minimum to be provided or performed.
1. Within specified tolerances the actual installation may comply exactly with the minimum quantity or quality specified, or may exceed that minimum within reasonable limits.
 2. Refer instances of uncertainty to the City for decision before proceeding.
- D. Compatibility of options: When the Contractor is given the option of selecting between 2 or more products for use on the Project, the Contractor shall verify that product selected will be compatible with the products previously selected, even if previously selected products were also options.

- E. The City will consider written requests from Contractor for substitutions when submitted in compliance with the following.
1. Submit 5 copies of requests for substitutions. Include in request:
 - a. Reason for request.
 - b. Complete data substantiating compliance of proposed substitution with Contract Documents.
 - c. For products:
 - (1) Product identification, including manufacturer's name and address.
 - (2) Manufacturer's literature, including product description, performance and test data, and reference standards.
 - (3) Samples.
 - (4) Name and address of similar projects on which product was used, and date of their installation.
 - d. For construction methods:
 - (1) Detailed description of proposed method.
 - (2) Drawings illustrating methods.
 - e. Itemized comparison of proposed substitution with product or method specified.
 - f. Data relating to changes in construction schedule.
 - g. Accurate cost data on proposed substitution in comparison with product or method specified.
 - h. Approval from applicable Building Department of product submitted for substitution. Approval may be in the form of a research report, test report or other form acceptable to the City.
- F. Substitutions will not be considered if: They are indicated or implied on shop drawings or project data submittals without formal request submitted in compliance with the requirements of this Section.
1. Make request for substitutions prior to the preparation of shop drawings, product data and samples; do not prepare shop drawings, product data and samples based on substitutions which have not been accepted by the City.

1.06 PRODUCT HANDLING/STORAGE/PROTECTION

- A. General: Transport, deliver, handle, and store materials and equipment to prevent the intrusion of foreign matter, moisture, and to prevent damage. In all cases, comply with the following.

1. Material and equipment manufacturer's instruction regarding temperature limitations.
 2. Other environmental conditions required to maintain the original quality of the materials and equipment.
 3. Protect existing materials from damage when moving and storing materials inside the building. Provide durable protection, such as boarding of openings through which materials will be transported, and sturdy, waterproof runners on floors of finished spaces through which materials are moved.
- B. Packaging:
1. Deliver packaged materials to the Project site or place of fabrication in manufacturer's original containers with seals unbroken and labels intact until incorporated into the work.
 2. Wrapped or bundled materials shall clearly bear the manufacturer's name and trade mark, an UL or FM label, when applicable.
- C. Removal: Remove damaged or otherwise unsuitable material and equipment promptly from the site and replace with satisfactory material at no additional cost to the City.
- D. Storing: Locate storage piles, stacks or bins to avoid being disturbed, and protect from damage of any sort. Do not block required exitways with storage piles.
- E. Protection: Keep finished surfaces clean and unmarred until Substantial Completion.
- 1.07 CLEANING
- A. General: This Article supplements other provisions on cleaning found in the Contract Documents.
1. Keep work and adjacent areas free from accumulations of waste, debris and rubbish caused by construction operations.
 2. At completion of Work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces. Leave Project clean and ready for occupancy.
- B. Maintain premises, adjacent and public properties free from accumulations of waste, debris, and rubbish caused by construction operations.
- C. Use cleaning materials which have a high flash point, are non-toxic, and are recommended by the manufacturer of the surfaces to be cleaned to not damage these surfaces.

- D. Remove grease, dust, dirt, stains, labels, fingerprints and other foreign materials from sight-exposed finished surfaces; polish surfaces so designated to shine finish.
- E. Repair, patch and touch-up marred surfaces to specified finish to match adjacent surfaces when acceptable to the City.

1.08 PROJECT RECORD DOCUMENTS

- A. Maintain at site one copy of Contract Drawings, Specifications, Addenda, shop drawings, and modifications to original Specifications and Drawings.
- B. Do not use record documents for construction purposes. Make documents available at all times for inspection by City.
- C. Keep record documents current. Record and properly dimension deviations on the record drawings within 24 hours after work in affected area is completed. Use a fine felt or nylon tip pen with waterproof colored ink for marking. Legibly mark to record actual constructions where it deviates from the Contract Documents.
- D. At completion of Project, deliver record documents to City.

1.09 SPECIFICATION ABBREVIATIONS

- A. For acronyms, and for addresses and telephone number of the associations, societies and institutes referenced in the Specifications refer to "Sources of Construction Information" published by, and available from the Construction Specification Institute, 99 Canal Plaza Center, Suite 300, Alexandria, VA 22314 (800) 689-2900.

END OF SECTION

SUBSTITUTION REQUEST FORM

PROJECT _____

LOCATION _____

DESIGNER'S PROJECT NUMBER _____

SUBSTITUTION NO. ____ (number consecutively)

CONTRACTOR'S REQUEST AND SUBSTANTIATION

1. THIS SUBSTITUTION IS REQUESTED FOR THE FOLLOWING REASONS:

2. SECTION OF SPECIFICATIONS TO WHICH THIS REQUEST APPLIES IS _____

3. IN SUPPORT OF THIS REQUEST, PRODUCT DATA FOR PROPOSED SUBSTITUTION IS ATTACHED, CONSISTING OF DESCRIPTION OF PRODUCT OR ITEM, REFERENCE STANDARDS, AND PERFORMANCE AND TEST DATA, SAMPLE IS ATTACHED, OR SAMPLE WILL BE SENT IF REQUESTED. (cross out paragraphs not applicable).

4. FOLLOWING IS ITEMIZED COMPARISON OF ORIGINAL PRODUCT OR ITEM SPECIFIED WITH PROPOSED SUBSTITUTION:

ORIGINAL SUBSTITUTION

NAME OR BRAND _____

MANUFACTURER _____

CATALOG NO. _____

SIGNIFICANT VARIATIONS _____

5. UNIT COSTS, FOR PRODUCT OR ITEM ONLY, PRODUCT OR ITEM FURNISHED AND INSTALLED (check one) ARE AS FOLLOWS:

ORIGINAL PRODUCT OR ITEM: \$ _____ PER _____

SUBSTITUTION: \$ _____ PER _____

6. PROPOSED CREDIT TO OWNER FOR THIS SUBSTITUTION: \$ _____

7. EFFECTS OF THE PROPOSED SUBSTITUTION ON OTHER PARTS OF THE WORK, OR ON SEPARATE CONTRACTS, ARE DESCRIBED AS FOLLOWS. THIS LIST IS ALL INCLUSIVE:

8. THE PROPOSED SUBSTITUTION WILL WILL NOT (check one) AFFECT DIMENSIONS SHOWN ON THE DRAWINGS.

9. THE UNDERSIGNED, HAVING THOROUGHLY INVESTIGATED THE PROPOSED SUBSTITUTION, HEREBY STATES THAT HE (A) BELIEVES THAT IT IS EQUAL OR SUPERIOR IN ALL RESPECTS TO THE ORIGINALLY SPECIFIED PRODUCT EXCEPT FOR THE VARIATIONS DESCRIBED IN ARTICLE 2, ABOVE, (B) WILL PROVIDE THE SAME WARRANTY OR WARRANTIES AS SPECIFIED, (C) HAS INCLUDED ALL COST DATA AND COST IMPLICATIONS OF THE PROPOSED SUBSTITUTION, (D) WILL PAY REDESIGN AND SPECIAL INSPECTION COSTS CAUSED BY THE USE OF THIS SUBSTITUTION, (E) WILL REIMBURSE SEPARATE CONTRACTORS FOR ADDITIONAL COSTS CAUSED BY THE USE OF THIS SUBSTITUTION, (F) WILL COORDINATE THE INCORPORATION OF THE PROPOSED SUBSTITUTION IN THE WORK, (G) WILL MODIFY OTHER PARTS OF THE WORK AS MAY BE NECESSARY AND AS APPROVED BY THE DESIGNER TO MAKE ALL PARTS OF THE WORK COMPLETE AND FUNCTIONING, (H) AFFIRMS THAT MAINTENANCE AND SERVICE PARTS WILL BE LOCALLY AVAILABLE FOR THE PROPOSED SUBSTITUTION, AND (I) WILL WAIVE FUTURE CLAIMS FOR ADDED COST(S) TO ANY PARTY CAUSED BY THE PROPOSED SUBSTITUTION.

CONTRACTOR _____ DATE _____

CONTRACTOR'S SIGNATORY _____ TITLE _____

DESIGNER'S REVIEW AND ACTION

FURNISH ADDITIONAL INFORMATION IN THE FOLLOWING CATEGORIES AND RESUBMIT:

SIGN CONTRACTOR'S STATEMENT OF CONFORMANCE AND RESUBMIT.

THE PROPOSED SUBSTITUTION IS APPROVED SUBJECT TO THE FOLLOWING CONDITIONS:

A CHANGE ORDER REFLECTING A DEDUCTION FROM THE CONTRACT SUM IN THE AMOUNT OF \$ _____ WILL BE ISSUED.

DESIGNER'S SIGNATURE _____ DATE _____

END OF FORM

SECTION 01500
TEMPORARY FACILITIES AND CONTROLS

1.00 GENERAL

1.01 SUMMARY

- A. Provide all temporary facilities and controls required to complete the Work.
- B. Maintain strict supervision on use of all temporary facilities and controls. Enforce compliance with applicable standards. Prevent abuse of services.
- C. Costs of installation, operation and removal of all temporary facilities shall be borne by the Contractor, except as noted below.
 - 1. Electrical power used during construction, will be provided by the Owner at no cost to the Contractor, unless available power source is not sufficient, or not located within reach, in which case provide alternate source for electrical power.
 - 2. Water used during construction will be provided by the Owner at no cost to the Contractor.

1.02 LIGHT AND POWER

- A. Maintain in a safe manner and utilize so as not to constitute a hazard to persons or property.
- B. Characteristics of current furnished by the Owner is limited to that existing and available; if current of other characteristics or quantity is required by Contractor, the Contractor shall supply the power as necessary at no extra cost to Owner.
 - 1. Total load connected to any circuit shall not exceed 25% of the circuit capacity labeled in panelboard. Contractor shall repair and make good damage to existing electrical facilities caused by his use, as directed and approved, at no additional cost to the Owner.
- C. Comply with legal requirements.

1.03 WATER

- A. Provide and maintain temporary water services for drinking purposes.

B. Water will be available from existing hose bibbs, outlets that do not interfere with the normal operation of the facilities.

1. Provide temporary backflow prevention devices as required by Code.

1.04 TOILETS

A. Provide and maintain temporary portable toilets and other sanitary facilities for all workers on the Project as required by, and in compliance with, legal requirements.

B. Do not use existing toilet facilities.

1.05 FIRST AID/FIRE PROTECTION/OTHER TEMPORARY FACILITIES

A. Provide as required by, and in compliance with, legal requirements.

1.06 PERMANENT SYSTEMS USED AS TEMPORARY FACILITIES

A. When any portions of the permanent systems are in operating condition, that part of the system may be used as a temporary facility provided that the Contractor:

1. Obtains the Owner's approval.

2. Assumes full responsibility for the system used.

3. Pays all costs for operation, maintenance, cleaning and restoration of the system.

4. Operates the system under the supervision of the subcontractor responsible for the system's installation and ultimate performance.

1.07 MISCELLANEOUS TEMPORARY CONSTRUCTION AIDS

A. Provide and maintain all miscellaneous temporary construction aids required for proper execution of the work, such as ladders, railings, hoists, barricades, enclosures, etc.

1.08 BARRIERS

A. Security:

1. The Owner may provide such watchman service as he deems necessary to protect his interest during the progress of the work. Any protection provided by the Owner will not in any way relieve the Contractor of the responsibility for the safety of the Work and the acceptance thereof.

2. The Contractor shall employ such watchman service as he may deem necessary to properly protect and safeguard the work. The Owner shall not in any way be liable or responsible for the damage or loss to the work due to trespass or theft.
 3. Provide protection for materials, tools and equipment employed on the Project including the workers tools. The Owner shall not be held to have incurred any liability for loss of, and damage to, materials, tools and equipment of the Contractor, or of those employed by him, by contract or otherwise.
- B. Protection: Continuously maintain protection as necessary to protect the work as a whole and in part, and portions of the building which will remain occupied and operational from accidents, injuries or damage.
1. Properly protect the work:
 - a. With lights, guard rails, temporary covers, and barricades.
 - b. Enclose excavations with proper barricades.
 - c. Brace and secure all parts of the work against storm and accident.
 - d. Provide such additional forms of protection which may be necessary under existing circumstances.
 2. Provide and maintain in good condition all protective measures as may be required to adequately protect the public from hazards resulting from this Work and to exclude unauthorized persons from the work. When regulated by Building Code and other public authorities having jurisdiction, such legal requirements for protection shall be considered as minimum requirements; be responsible for the protection in excess of such requirements as required.
- 1.09 POLLUTION CONTROL, TOXIC AND FLAMMABLE MATERIALS
- A. Comply with all pollution control regulations in effect at site for all materials, equipment and work procedures used on the Project.
- 1.10 TRAFFIC REGULATION
- A. Traffic maintenance: Determine the routing of construction vehicles before starting work, following instructions which will be provided by the Owner and based on the safeguards and procedures necessary to carry out the Work.
 1. In addition:

- a. Be responsible for controlling construction traffic within and adjacent to the site.
 - b. Provide all entrances and safeguards required or necessary to the progress of the work, and effectively control such traffic to provide minimum hazard to the work and all persons.
 - c. Route all construction equipment, trucks, and similar vehicles via existing public streets to and from the site as approved by the governing authorities.
 - d. Obtain and pay for permits and inspections necessitated by the use of public streets, sidewalks, curbs, and paving. Post guarantees and bonds that may be required, and repair and make good any damages thereto, acceptable to the authorities having jurisdiction.
 - e. Keep driveways, parking areas (unless otherwise acceptable to the Owner) and streets adjacent to the site open to vehicular and pedestrian traffic.
 - f. Maintain constant access for law enforcement agencies, fire and ambulance service.
 - g. Provide and maintain for proper control of traffic and safety of all concerned:
 - (1) All necessary barricades, suitable and sufficient lights, reflectors, and danger signals.
 - (2) Warning and closure signs, directional and detour signs.
 - (3) And whatever additional measures necessary.
 - h. Indicate on a 24 hour basis all restricted and dangerous conditions existing on or adjacent to the site.
 - (1) Illuminate barricades, danger signals, warning signs and obstructions at night.
 - (2) Keep warning lights burning from one hour before sunset until one hour after sunrise.
- B. Parking: Parking for workers employed on the work will not be available at the site. Each vehicle will need to cover their parking fees.

1.11 REMOVAL

- A. Remove all temporary facilities and controls upon completion of construction operations or when they are no longer needed, whichever comes first.

END OF SECTION

DIVISION 02

Not Used

DIVISION 03

CONCRETE

SECTION 03300
CAST-IN-PLACE CONCRETE

1.00 GENERAL

1.01 SUMMARY

A. Section includes:

1. Provide cast-in-place concrete for footings.
2. Epoxy injections, where needed.

1.02 SUBMITTALS

A. Procedure: In accordance with Section 01100.

B. Data: Manufacturers' brochures and technical data for all manufactured products.

C. Certificates:

1. Cement certification.
2. Admixture certification: Include chloride ion content.
3. Batch plant tickets.

D. Concrete mix designs for approval: Certified concrete mix designs for initial and any subsequent changes in mix designs.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations.

B. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for 5 years. Use experienced installers.

C. Deliver, handle, and store materials in accordance with their manufacturer's printed instructions.

D. Employ an independent testing agency acceptable to Owner to design concrete mixes and to perform material evaluation tests. Provide 7 and 28 day cylinder tests. Comply with ASTM C 143, C 173, C 31 and C 39.

2.00 PRODUCTS

2.01 MATERIALS

- A. Formwork: APA rated B-B Plyform forms sufficient for structural and visual requirements, or equal.
- B. Reinforcement:
 - 1. Bars: Deformed steel, ASTM A 615, Grade 60.
 - 2. Mesh: Welded steel wire fabric, ASTM A 185.
- C. Concrete materials:
 - 1. Cement: Portland cement, ASTM C 150, Type 1.
 - 2. Aggregate: Normal weight aggregates, ASTM C 33.
- D. Admixtures, all with less than 1% chloride ions:
 - 1. Water-reducing type and superplasticizer as required for workability; Euclid, Sika, L&M or equal.
 - 2. Air-entraining type for use in foundations exposed to freeze-thaw; Euclid, Sika, L&M or equal.
- E. Curing compound: ASTM C 309, Type I, guaranteed not to affect the bond, adhesion, or effectiveness of finishes and surface treatment specified herein to be applied to concrete.
- F. Epoxy for injection: Hilti, or equal.
- G. Concrete mixes: Engage a testing laboratory acceptable to Owner to perform material evaluation tests and to design concrete mixes to provide:
 - 1. Concrete of the compressive strength indicated on the Drawings.
 - 2. Adequate workability and proper consistency to permit concrete to be worked readily into the forms and around reinforcement without segregation and excessive bleeding.
 - 3. Other requirements noted on the Drawings and specified herein.

3.00 EXECUTION

3.01 FORMWORK

- A. In general follow the guidelines of ACI 347. Construct forms to obtain concrete of the shapes, dimensions and profiles indicated, with tight joints.
- B. When patching formed concrete, seal form edges against existing surfaces to prevent leakage; set forms so that patch is flush with adjacent surfaces.
- C. Design and construct forms to prevent bowing-out of forms between supports and to be removable without prying against or otherwise damaging fresh concrete.

3.02 REINFORCING STEEL

- A. Drilling for dowels in existing concrete: Use sharp bits, drill hole slightly oversize, fill with epoxy grout, insert the dowel, and remove excess epoxy.
- B. Place other reinforcement as indicated and within the guidelines established by ACI 315.
 - 1. Accurately position, support, and secure reinforcement against displacement until concrete is cast.
 - 2. When cast on existing concrete surfaces, support reinforcement on precast concrete supports with embedded wire ties.

3.03 CONCRETE PLACEMENT

- A. Comply with ACI 301, 304, 305, 306, 311, 318, 347, CRSI "Manual of Standard Practice", and ASTM C 94. Do not change mix design without approval. Calcium chloride admixtures are not permitted.
- B. Chamfer exposed edges/corners to provide straight lines.
- C. Tolerance: +1/8 in. in 10 ft. for grade, alignment, and straightness.
- D. Construction joints: Use keyways, continue reinforcement through joint.
- E. Slab finishes: After trowel finishing, roughen surface by fine brooming perpendicular to traffic direction, unless otherwise indicated.
- F. Cure and protect work. Report defective work in writing.

3.04 EPOXY INJECTION

- A. Blow-out cracks with compressed air. Dam cracks on the interior of the building to prevent excessive spillage of grout.
- B. Pump grout using equipment specifically designed for the purpose. Full penetration is required, all voids must be filled. Equipment is subject to the Designer's approval, and, when requested, manufacturer's data for the equipment shall be submitted for the Designer's evaluation.
- C. After removal of forms or dams, remove excess grout and finish flush with adjacent surfaces.

END OF SECTION

DIVISION 04

MASONRY

SECTION 04450
STONE VENEER

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes
 - 1. Stone veneer, complete with mortar, metal ties, anchors, dowels, and other accessories.
- B. Related work:
 - 1. Concrete base: Section 03300.
 - 2. Sign cabinet and welded stone clips: Section 10400.

1.2 SUBMITTALS

- A. Procedure: In accordance with Section 01100.
- B. Samples: 3 sets, not less than 12-inch by 12-inch, showing the full range of stone color, finish and texture variations to be expected in the Work.
- C. Shop drawings:
 - 1. Cutting and setting drawings showing sizes, dimensions, sections and profiles of stone, the arrangement and provisions for jointing, anchoring and fastening, supports, and other necessary details for, and reception of other work.
 - 2. Indicate location of each stone on the setting drawings with number designation corresponding to number marked on each unit.
 - 3. Show location of inserts (for stone anchors and supports) to be built into or attached to supporting work.

1.3 QUALITY ASSURANCE

- A. Available stock: Before start of fabrication, certify in writing, to the Designer, that sufficient stock of the approved stone is available and on hand for completion of the work of this Contract, within the Contract time schedule.
- B. Coordination: Before starting shop drawings, notify the Designer, and request his review of the work of this Section. Review and coordinate reveals, and obtain Designer's approval prior to installation.
- C. Stone veneer attachment and anchorage system:

1. Engineer the stone attachment and anchorage system, within the physical limitations indicated.
 2. Where required, obtain the Building Department approval of the anchorage system, after submitting shop drawings to the Designer, and pay costs therefore.
 3. Fasteners and connections are shown schematically. A California-licensed professional engineer, employed by the Contractor, shall determine final types and sizes.
 - a. Fasteners or connections shall not conflict with or require revision of the finish profiles of the stone and the supporting work.
 - b. Connections to the structural frame shall not impose any eccentric loading, or induce twisting or warping.
 - c. Connections to the structural frame shall be able to accommodate misalignment of the steel structure within limits allowed by the AISC tolerances.
 4. Stone attachment system shall provide a method for stone panel replacement without compromising the integrity of the stone panel or the back-up support system. This method shall be detailed and identified on the shop drawings.
- D. Uniformity:
1. Obtain all stone from a single quarry, with consistent color range and texture. For adjacent pieces, fabricate veneer from the same block or contiguous blocks.
 2. Uniformity of the stone veining, texture, and color are of paramount importance. Extreme range of stone veining, texture and color must be approved by the Designer on at least 20 full size samples prior to signing of contract for stone procurement.
 3. Stone surfaces to be exposed in the Work showing varying levels of sheen and texture from stone-to-stone, and stone showing "wheel" and other fabrication marks will be rejected and require replacements at no extra cost to Owner.
 - a. Paving with cleft finish shall comply with ADA requirements. Stones with an even texture are of paramount concern, and vertical differential shall not exceeding 3/16 -inch. Hand select stone for consistent surfaces.
 4. The Contractor will be required to balance and harmonize the stone installation to prevent pieces with extreme variations of color and patterns from being installed next to each other (light next to dark, patterned next to plain, etc.)
- E. Stone fabricator's qualifications: Firm with a minimum of 5 years of successful experience in work similar to that required for this Project.

1.4 HANDLING

- A. Procedure: In accordance with Section 01100.
- B. Protection: Protect stone against damage during its fabrication, handling and installation.
- C. Handling:
 - 1. To prevent chipping, breaking, soiling and other damage.
 - 2. Do not use pinch or wrecking bars without protecting stone edges with wood covers tied securely in place.
 - 3. Lift stone with non-staining wide belt type slings wherever possible; do not use wire rope or ropes containing staining substances.
- D. Storage:
 - 1. On wood skids or pallets and covered with non-staining, waterproof covering permitting free air circulation.
 - 2. Place and stack stone to distribute its weight evenly and to prevent its breaking or cracking.

PART 2 PRODUCTS

2.1 MATERIALS

- A. General:
 - 1. Marble free of checks, spalls, stains, discoloration, unusual patterns or other imperfections, and matching the Designer's control samples.
 - 2. The Designer must accept inherent variations characteristic of the quarry from which the stone is taken before stones are finished.
- B. Stone types and source: As indicated on Drawings.
- C. Strip liner: Any sound stone of the same kind as the piece it is being laminated to.

2.2 MORTAR AND GROUT

- A. Cement: White Portland cement, conforming to ASTM C 150, Type I, except complying with the staining requirements of ASTM C 91 for not more than 0.03 percent water soluble alkali.
- B. Setting plaster: Plaster of Paris, ASTM C 59.
- C. Hydrated lime: ASTM C 207, Type S.

- D. Sand: ASTM C 144, non-staining.
- E. Thin set: Laticrete 254.
- F. Water: Potable and fresh.

2.3 STONework ACCESSORIES

- A. Stone anchors: Stainless steel, type, number and size to satisfy Code requirements.
- B. Mesh reinforcement for stone setting bed: 2 by 2 by 16/16 wire or 3 by 3 by 13/13 wire or 1-1/2 by 2 by 16/13 wire complying with ASTM A 82 and A 185 for fabric. Weight shall be 1.8 lb./sq. yd. minimum.
- C. Structural adhesive for stone liner: 2-part waterproof, UV stable, non-shrink, polyester, epoxy or urethane adhesive compound which will not induce or support mildew and fungus growth, by Akemi North America, Bonstone Materials Corp., or Laticrete International.
- D. Sealant: Dow Corning Corp.: 756.
- E. Sealant backer rod: ASTM D 1667.
 - 1. Compressible rod stock of closed-cell polyethylene foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam or other flexible, permanent, durable non-absorptive material recommended by the sealant manufacturer.
 - 2. Provide size and shape of rod that will control the joint depth for sealant placement, break bond of sealant at bottom of joint, form optimum shape of sealant bead on back, and provide a highly compressible backer to minimize the possibility of sealant extrusion when joint is compressed.

2.4 MIXES

- A. For hardware installation, spots and setting: One part cement, 3 parts sand and 1/5 part lime.
- B. For setting bed: As specified hereafter.

2.5 FABRICATION

- A. General:
 - 1. Fabricate stonework as detailed on final shop drawings and in compliance with the recommendations of the applicable stone association.
 - 2. Provide greater stone thickness than indicated where (a) stone thickness indicated is insufficient for the stone size, (b) the extent of the cut-outs decreases the strength of the remaining material, and (c) required for secure anchorage and adequate bearing areas or surfaces.

3. Fabricate adjacent pieces of the same stone from one block or contiguous blocks for color and pattern match.
4. Finish all exposed surfaces, including exposed edges, as indicated on the Drawings and to match approved samples.
5. Provide holes and slots cut or drilled for anchors, fasteners, supports and lifting devices, as shown and as necessary to secure stonework in place. Make holes and slots in the edge of the stone a minimum of 3/4-inch deep and center between the faces.
6. Cut and back-check stone as required for proper fit and clearance. Shape beds to fit supports.
7. Glue and dowel liner securely to back of panels.

B. Cutting:

1. Cut stonework accurately to shapes and dimensions shown on final shop drawings, maintaining fabrication tolerances of the applicable stone association.
2. Dress joints (bed and vertical) straight and perpendicular to stone face.
3. Layout stone to provide uniform 1/16-inch wide joints.

C. Fabrication tolerances:

1. Unless otherwise required to maintain construction tolerances or coordination with supports and attachments, comply with applicable stone association for finish, bedding dimensions and other requirements, except the nominal thickness tolerance shall be plus 3/16-inch
2. When options are allowed by the stone association, the more stringent applies. Backs of pieces shall always be sawn.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine conditions and measurements affecting the work of this Section at site.
- B. Correct conditions detrimental to the proper and timely completion of this work before proceeding with installation.

3.2 INSTALLATION

A. General:

1. Do not use stone with chips, cracks, voids, stains and other defects, which might be visible in the finished work.

2. Clean stone before setting.
3. Employ skilled stone fitters at the site to do necessary field cutting as stone is set.
4. Do not allow stone to contact ferrous metal surfaces.
5. Set stone in compliance with the accepted shop drawings.
6. Select stones to avoid objectionable variations in color, texture and grain between adjacent pieces as approved by the Designer.

B. Veneer:

1. Provide anchors, supports, fasteners and other attachments to securely anchor stonework in place. Comply with approved shop drawings.
2. Shim and adjust accessories as required for proper setting of stone.
3. Completely fill holes, slots and other sinkages for anchors, dowels, fasteners and supports with mortar during setting of stones.
4. Install veneer plumb and level with joints uniform in width and accurately aligned.
5. Provide setting buttons to prevent extrusion of mortar.
6. Fill joints of veneer with back-up and sealant specified. Tool joints slightly concave.

3.3 TOLERANCES

A. Tolerances for the building frame and other work are specified in other Sections. Make provisions for these tolerances in designing and installing stonework and its anchorage system so that when completed stonework shall be within the following tolerances.

1. Sealant joint width between stone pieces: Plus 1/8 inch
2. Overall length and height (or width) stone edge to stone edge: plus 1/16 inch.
3. Offset (in/out) between adjacent stone edges: 1/16 inch maximum.
4. Thickness nominal 2 inches: 1/16 inch.
5. Where more than one tolerance applies, the more restrictive shall govern.

B. Correct errors and inconsistencies.

3.4 ADJUSTING/CLEANING

- A. Repair of stone will be permitted only when the piece to be repaired is marked for easy identification and the results are acceptable to the Designer; otherwise remove and replace pieces which are loose, hollow sounding (indicating poor bonding to setting bed), broken, chipped, stained or otherwise damaged.
 - 1. Provide new matching units, install as specified and point-up joints to eliminate evidence of replacement.
 - 2. Repoint defective and unsatisfactory joints to provide a neat, uniform appearance.

- B. Clean stonework after sealant has cured using clean water and stiff-bristle brushes. Do not use wire brushes, acid type cleaning agents or other cleaning compounds with caustic or harsh fillers.

END OF SECTION

DIVISIONS 05-09

Not Used

DIVISION 10

SPECIALTIES

SECTION 10400
SIGNS AND GRAPHICS

1.00 GENERAL

1.01 SUMMARY

A. Section includes:

1. Signage and graphics.
2. Signage cabinets and welded stone clips.
3. Supplementary parts and components such as inserts, clips, fasteners, anchors, bracing, and other miscellaneous supports and accessories required for a complete installation.

B. Work furnished but installed in other Sections:

1. Anchors for casting into concrete footings and base: Section 03300.

C. Related work:

1. Concrete footings: Section 03300.
2. Stone cladding: Section 04450.
3. Electrical supply and conduit: By Owner.

1.02 SUBMITTALS

A. Submit the following in compliance with the requirements of Section 01100:

1. Large scale, dimensioned shop drawings of all signs. Include artwork for signs, maps, sign messages and other graphics, and elevations, sections, and large scale details of copy and lettering layout.
 - a. Show anchorages and accessory items.
 - b. Show full-size details of exposed edges, joints between materials, and details which affect appearance must be included.
 - c. Show locations of required joints and seams.
 - d. Provide location template drawings for signs supported or anchored to other construction.

- e. Manufacturer to produce artwork in accordance with the dimensions and notes on the Drawings.
 - f. Reproduction of the Contract Drawings as shop drawings is not acceptable.
 - g. Coordinate the shop drawings with the work of other trades which is a part of, or will be incorporated in the signage, such as stone veneer and electrical. The work to be performed by other trades shall be noted, including adjacent and abutting materials to which this work is to be secured.
 - (1) Obtain the approval of the signage shop drawings by these related trades (as evidenced by their stamp and signature thereon) before submitting shop drawings to the Designer.
- 2. Paint colors: 4 in. square samples of each color to be used for painted finishes applied using the same technique for finished sign. Produce in fabricators shop; do not provide manufacturer's paint-outs.
 - 3. Samples of each sign form and material showing finishes, colors and surface texture
- B. Wiring diagrams from the manufacturer for illuminated sign units.
 - C. Structural calculations, when appropriate, as specified in Article 1.03.
 - D. With closeout submittals, furnish the Owner recommended maintenance instructions, and provide a list to identify acceptable maintenance materials.
- 1.03 QUALITY ASSURANCE
- A. General requirements:
 - 1. Written dimensions on the Drawings take precedence over scaled dimensions. Verify and be responsible for dimensions and conditions shown on the Drawings.
 - 2. Notify Designer of discrepancies in the Drawings or sign schedule, when provided, in-field dimensions or conditions, and changes required in construction details.
 - 3. Provide Designer with field measurements, specific detail issues, and other required information or photographs to verify existing conditions and layout conform with design intent.
 - 4. Copy, quantities and references shown on sign schedules, when provided, shall have precedence over Drawings.

5. Graphics shall match specified typeface, punctuation, capitalization, and spacing.
 6. Work shall conform to building codes of the City of Beverly Hills, and shall be approved where required. Contractor to obtain and pay for required permits.
 7. If artwork is provided by Follis Design will be in Macintosh Adobe Illustrator, or .eps file format only. This would not include design drawings, sign schedule, location plans, etc., which are the responsibility of the Contractor.
 - a. Automated conversion (translation) of information and data from the system and format used by Follis Design to an alternate system or format cannot be accomplished without the introduction of deviations, anomalies and errors. The Contractor agrees to assume all risks associated therewith.
- B. Fabricator's qualifications: Firm with not less than 5 years of sign production experience similar in size and scope to this Project, and whose qualifications indicate the ability to comply with the requirements of this Section.
- C. Requirements of regulatory agencies, and Codes:
1. State Fire Marshal, Title 19.
 2. Uniform Building Code (UBC) and Standards.
- D. UL and NEMA compliance: Provide lighting fixtures and electrical components for illuminated signs that are labeled and listed by UL and comply with applicable NEMA standards.
- E. Coordination: Before starting shop drawings, notify the Designer, and request his review of the work of this Section. Review and coordinate layouts for each sign, and obtain Designer's approval prior to manufacturing.
- F. Pre-installation meeting: Prior to installing any signage, arrange a pre-installation meeting between signage fabricator, manufacturer, the trade responsible for the installation, and the Designer.
1. If more than one trade will be responsible for the work of this Section, these trades shall attend the meeting.
 2. Those present shall review the Drawings, Specifications, signage artwork, and clarify typical and unique sign installations, conditions and locations.
- G. Design criteria:
1. The Drawings do not include all fabricating details required for the structural integrity of the signs and their anchors, including consideration for static, dynamic and erection loads during handling, erecting, and service at the installed locations.

2. It shall be the responsibility of the Contractor to perform the complete structural design of the signs and to incorporate all the reasonable safety factors necessary to protect the Owner against public liability, and to obtain necessary permits.
 3. Designs that survive rational engineering analyses will be acceptable.
 4. The above does not authorize the Contractor to alter in any way the exterior appearance of the signs.
 5. Anchors and supporting connections are shown schematically. Final types and sizes shall be determined by a California-licensed civil engineer employed by the Contractor.
 - a. In no case shall the fasteners or connections conflict with or require revision of the finish profiles of the signage or the supporting work.
 - b. Change or redesign of the sign support system to accommodate the tendons and concrete work shall be at the Contractor's cost and be the responsibility of the Contractor's engineer.
- H. Qualifications for welding work: Qualify welding procedures and welding operators in compliance with AWS "Qualification" requirements for AWS D1.1.
1. Verify that welders to be employed in this work have satisfactorily passed AWS qualification tests.
 2. If recertification of welders is required, retesting will be Contractor's responsibility.
- 1.04 HANDLING
- A. Pack, wrap, crate, bundle, box, bag, or otherwise package, handle, transport, and store fabricated work as necessary to provide protection from damage.
- 1.05 COPYRIGHT
- A. The designs are Copyrighted by Follis Design. Follis Design hereby grants the Contractor the limited right to fabricate the designs herein for the sole purpose of completing this Contract.
 - B. Contractor may not manufacture, reproduce, or exhibit these designs, or modify them for any purpose, without expressed, written permission of Follis Design.
- 1.06 WARRANTY
- A. Warrant this work against defective materials, workmanship, and design for 3 years from Substantial Completion.

- B. Fading, cracking, warping, peeling, delaminating, rusting, corroding, and structural failure, including distortion by whatever cause, shall be construed to mean failure because of faulty materials and workmanship.
- C. Failures during the warranty period shall be repaired or replaced, at no cost to the Owner, together with any damage to finishes, fixtures, equipment and graphics that may be damaged as a result of this defective workmanship.

2.00 PRODUCTS

2.01 MATERIALS

- A. General requirements for metal components:
 - 1. Provide materials which have been selected for their surface flatness, smoothness and freedom from blemishes wherever exposed to view in the finished work.
 - 2. Materials shall have been cold-rolled, cold-finished, cold-drawn, extruded, stretcher-leveled and machine cut to the highest commercial standards for flatness, with edges and corners sharp and true to angle or curvature as required.
 - 3. Exposed-to-view surfaces which exhibit pitting, seam marks, roller marks, stains, oil canning, discolorations or other imperfections will not be acceptable.
- B. Stainless steel: ASTM A 666 Type 302/304, unless otherwise indicated.
 - 1. Plate: ASTM A 167.
- C. Aluminum: Alloy selected by the Contractor.
 - 1. Extruded bars, rods, shapes and tubes: ASTM B 221.
 - 2. Sheets and plates: ASTM B 209, gage(s) light enough to permit workability but heavy enough to accurately retain the brake shape or contour without oil-canning when fastened to backing or blocking.
 - 3. Rolled and extruded structural shapes: ASTM B 308.
- D. Acrylic: As indicated on Drawings.
 - 1. Finish edges so that no sawmarks are visible.
- E. Vinyl: As indicated on Drawings.
- F. Paint: Aliphatic acrylic polyurethane by Matthew Paint a division of PPG, or equal. Colors as indicated.

1. System for aluminum: Primers, catalysts and reducers as recommended by manufacturer. Aliphatic acrylic polyurethane finish coat.
 2. System for acrylic: Matthews Tie Bond 74-777SP and aliphatic acrylic polyurethane finish coat, unless manufacturer recommends a different system.
 3. Clear coat: Apply aliphatic acrylic polyurethane clear coat over painted surfaced, satin finish.
- G. Silicone adhesive used for installing signs: Manufactured by Dow Corning, General Electric, or equal.
- H. Welding electrodes and filler metal:
1. Stainless steel: TIG using rods made from alloyed Type 308 stainless steel, as required for color match, strength and compatibility in the fabricated items.
 2. All other metals: Type and alloy recommended by producer of the metal to be welded, as required for color match, strength and compatibility in the fabricated items.
- I. Fasteners: Powder-actuated fasteners are not acceptable.
1. For aluminum: Aluminum or Type 305 stainless steel.
 2. Structural steel bolts: ASTM A 307; where higher strength is required submit bolt specifications with shop drawings.
 3. Chemical anchors: Chem-Stud by Rawplug Co., Inc. or HIT C-100 System by Hilti used with machine bolts complying with FS FF-B-575, Grade 5.
 - a. Select drilled-in and chemical anchors to resist loads imposed thereon with a safety factor of 4 minimum for static loads, and 10 minimum for dynamic and overhead loads.
- J. Hinges: Continuous stainless steel piano hinge.
- K. Lighting: UL approved exterior LED lights as indicated on the Drawings.
- L. Solar light kit: As indicated on the Drawings.
- M. Bituminous paint: Cold-applied asphalt mastic complying with SSPC Paint 12 but containing no asbestos fibers, or cold-applied asphalt emulsion complying with ASTM D 1187.

2.02 FABRICATION

- A. Produce artwork for signs, sign messages, and other graphics, unless otherwise noted.

- B. Execute cut, routed, painted, and vinyl copy in such a manner that edges and corners of finished letterforms are true and clean.
 - 1. Letterforms shall comply with the prescribed type style proportions.
 - 2. Sign copy shall be clean, crisp, sharp, and free of ticks, discontinuous curves, line waver, or other imperfections or blemishes.
- C. Sign colors shall be consistent in chroma, value and coverage, shall maintain proper opacity or translucency, and shall be free of blistering, bleeding, cracking, and other imperfections.
 - 1. If digital prints are used, color to be formulated to match paint colors indicated on Drawings.
- D. Properly prepare, prime, and paint surfaces following the paint manufacturer's printed instructions.
 - 1. Use painting methods that will result in full coverage of joints, corners, edges and all exposed surfaces.
 - 2. Dry film thickness and application procedure to be in accordance with the manufactures printed recommendations. Do not apply succeeding coats until previous coat has cured. Sand between coat applications where required to produce an even and smooth surface.
 - 3. Apply additional coats when undercoats or other conditions show through final coat until the cured film is of uniform finish, color, and appearance.
 - 4. The finish coat shall be smooth and even, free of runs, cloudiness, spotting, laps, brush marks, runs, sags, orange peel, holidays or other imperfections.
- E. Metal signs are to have generous eased edges, which take off the sharp square edge. Match Designer's control sample.
- F. Signs with internally illumination using LED lights have acrylic sign copy pushed through aluminum face plate. Hinge open sign face using concealed hinges and fasteners. Structural supports and footings, as indicated and approved on shop drawings.
- G. Comply with AWS for recommended practices in shop welding.
 - 1. Use only qualified welding technicians.
 - 2. Maintain proper welding temperature to avoid discoloring adjacent metal.
 - 3. Clamp components in jigs during welding to avoid distortion. Alligatored, discolored and warped components will be rejected.

- H. Weld metal signs. Grind and fill exposed welded seams and joints, and finish flush and smooth with adjacent area. Such seams shall be invisible after final finish has been applied. No light leaks, waves, or oil-canning will be permitted. Using epoxy and VHB tape in lieu of welding is unacceptable.
- I. Separate ferrous and non-ferrous metals with non-conductive gaskets to prevent electrolysis. In addition to gaskets, provide stainless steel fasteners to secure ferrous and non-ferrous metals.
- J. Provide acrylic edges, where indicated, with sandblasted appearance. Water cut, lazer cut, or provide uniformly sandblasted edges.
- K. Computer-cut and space vinyl letters. Pre-space for approval by Designer, with 3M Series 2 application tape, prior to installation of sign. No exceptions will be allowed.
- L. Do not affix labels to any sign or directory unit. Location of required labeling (by City or UL) shall be approved by Designer prior to application, or shall be removed and relocated, at no cost to the Owner, when so requested.
- M. Apply a heavy coat of bituminous paint to metal surfaces in contact with concrete. Do not apply on exposed surfaces.

3.00 EXECUTION

3.01 INSPECTION

- A. Verify conditions and measurements affecting the work of this Section at site. Make sure that detrimental conditions are corrected before proceeding with installation.

3.02 INSTALLATION

- A. Locate signs where shown or as directed in the field by the Designer. Install level, plumb and at height indicated, with sign surfaces free from distortion and other defects. Walls and substrates to be free of visual markings. Touch up walls and substrates with same finish where visual markings can not be removed.
- B. Provide required fasteners and anchors. Fasteners shall be concealed unless noted otherwise.
- C. Where exposed fasteners must be used, they shall be stainless steel, and finished to match surrounding area/sign, unless noted otherwise.

3.03 CLEANING/PROTECTION

- A. Remove protective coatings and identifying stickers and numbers and paper wrapping at the completion of installation.
- B. Repair damage to signs or surroundings to the satisfaction of the Designer, or replace.

- C. After installation, clean soiled sign surfaces according to the manufacturer's instructions. Protect units from damage until acceptance by the Owner.

END OF SECTION

DIVISIONS 11-16

Not Used