



Park Hill School District

Building Successful Futures • Each Student • Every Day

Request for Proposals

PHHS Preston Field Signage Improvements

RFP NO. OP2603

Notice

The Park Hill School District (District) will accept proposals for the PHHS Preston Field Signage Improvements as described herein.

Qualified Firms (Respondent) are invited to submit four (4) bound copies marked "Copy", one (1) unbound original marked "Original", and one (1) flash drive in PDF format which contain the Firm's entire response. Please limit these materials to a maximum of 10 – 8 ½" x 11" pages.

Proposal Shall Be Labeled

"Proposal - PHHS Preston Field Signage Improvements"

and Addressed to

Dr. Marcus Fryatt - Chief Operations Officer
Park Hill School District – Support Services Center
9501 N Seymour Ave., Kansas City, MO 64153

Proposal Must be Received by

12:00 PM CDT, Tuesday, September 1, 2026

Written Questions Regarding this RFP may be Directed to

Dr. Marcus Fryatt – Chief Operations Officer
Email: fryattm@parkhill.k12.mo.us

General District Information

www.parkhill.k12.mo.us

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PART I – INTRODUCTION

The Park Hill School District is seeking proposals from qualified signage contractors for improvements to stadium signage at Park Hill High School's Preston Field. The intent of this project is to enhance facility identification, improve visual consistency with District branding, and update existing signage elements serving students, staff, visitors, and community members.

The selected contractor shall provide a turnkey solution including field verification, fabrication, delivery, installation, cleanup, and warranty services.

INFORMATION ABOUT THE DISTRICT

The Park Hill School District (District) is in the southern third of Platte County, Missouri located just north of downtown Kansas City, Missouri. Park Hill is a public school district, serving students in prekindergarten through grade 12. The district includes 12 elementary schools, four middle schools, three high schools (including two traditional high schools and an innovative, personalized high school program), a day school, and an early childhood education center. Park Hill School District has approximately 11,500 students enrolled in grades PK-12. The district employs more than 2,000 staff members.

The Park Hill School District is a place where students, parents, teachers, administrators, staff, and community members are Building Successful Futures • Each Student • Every Day! Park Hill is an award-winning school district with the highest recognition provided by Missouri for academic achievement.

The District utilizes a strategic plan, known in Missouri as the Comprehensive School Improvement Plan (CSIP) to guide programming and improvement efforts inside and outside of the classroom.

Firms interested in working with the District are encouraged to familiarize themselves with the following documents and incorporate relevant district data into their response to the RFP:

- Strategic Plan/Comprehensive School Improvement Plan (CSIP) – <https://www.parkhill.k12.mo.us/about/strategic-plan-2023-2028>
- 2025 Student Demographic Profile and Enrollment Projections - <https://boepublic.parkhill.k12.mo.us/attachments/51dedc25-5664-44dd-8c2c-d6be2ae9bfe7.pdf>
- District Bond Project Detail- <https://www.parkhill.k12.mo.us/about/go-park-hill>

- 2025-2026 District Budget (includes annual Capital Improvement Plan and complete list of Bond Projects by School) -
<https://resources.finalsite.net/images/v1756216963/parkhillk12mous/neiq95tycwkd2ekqhtsu/2025-2026PHSDBudget.pdf>

TIMELINE FOR RFP PROCESS

The timeline listed below is the District's estimation to complete the RFP process. All efforts shall be made to abide by this schedule, but it may change due to different circumstances.

Activity	Date	Time
RFP Issue Date	Friday, July 31, 2026	
Question Cut-off date	Monday, August 17, 2026	10:00 AM CDT
Addendum Issue Date (Posted to District Website) https://www.parkhill.k12.mo.us/requests-for-proposals	Wednesday , August 19, 2026	2:00 PM CDT
Proposal Due Date	Tuesday, September 1, 2026	12:00 PM CDT
Committee Recommendation to Board of Education – Public Meeting	TBD	6:30 PM CDT
Vote for Approval – Board of Education – Public Meeting	TBD	6:30 PM CDT
Projects Start – Kickoff Meetings with Building Design Teams (Project Bundle 1 and 2)	TBD	TBD

PART II – SCOPE OF SERVICES

The project includes improvements to stadium signage located on the east and west sides of Preston Field at Park Hill High School.

Contractors shall provide all labor, materials, equipment, supervision, transportation, permits (if required), and incidentals necessary to complete the work.

SCOPE ITEM 1 – WEST SIGN RENOVATION

The existing west-facing sign shall be updated to display what is shown on sheet #3 of the PHHS Stadium Signage bid document.

Final technical specifications will be issued as part of the bid documents and incorporated into the contractor's scope of work. Please see technical specifications at the end of this document.

Respondents shall provide turnkey pricing for fabrication and installation consistent with those final specifications.

SCOPE ITEM 2 – EAST SIGN LETTER REPLACEMENT

The existing east-facing, field-side sign currently displaying:

Park Hill School District

Shall be removed and replaced to display: PARK HILL HIGH SCHOOL

This shall match the font on the west side and be non-illuminated. Letters shall not exceed 2' in height.

Park Hill High School

Contractors shall provide the following for both items:

- Removal and disposal of existing lettering.
- Fabrication and installation of new lettering.
- Field verification of dimensions prior to fabrication.
- Durable exterior-grade materials designed for long-term exposure.
- Secure mounting systems suitable for the existing structure.
- Repair of any damage resulting from removal or installation.

Lettering Requirements

- Font style shall be specified by the District.
- Letters may consist of both upper-case and lower-case characters.
- Individual letters shall not exceed twenty-four (24) inches in height.
- Letter spacing and layout shall be subject to District approval prior to fabrication.

GENERAL PROJECT REQUIREMENTS

Site Verification

Contractors shall verify all dimensions and existing conditions prior to fabrication.

Safety

All work shall be performed in accordance with applicable federal, state, and local safety requirements.

Installation

Installation shall be coordinated with District personnel to minimize disruption to school activities and athletic programming.

Cleanup

The contractor shall remove all debris and construction materials from District property upon completion of the work.

Warranty

Respondents shall provide warranty information for:

- Sign materials
- Finishes and coatings
- Mounting systems
- Installation workmanship

Warranty periods shall be clearly identified within the proposal.

PART III – INSTRUCTIONS TO RESPONDENTS

To facilitate an efficient and equitable review process, proposal submissions shall not exceed **ten (10) pages total, printed front and back**, excluding the cover letter, table of contents, dividers, references, product data sheets, warranty documentation, and required forms.

The District encourages concise responses focused on the requirements outlined in this Request for Proposal. The District reserves the right to deem excessively lengthy submissions non-responsive.

1. Respondents are to submit four (4) bound copies of their proposal marked "Copy", one (1) unbound original marked "Original", and one (1) flash drive in PDF format which contains the Respondent's entire response. The print and electronic versions should be identical.
2. Responses are to be limited to a maximum of 10 – 8 ½" x 11" pages. If additional pages are submitted, the District review committee will base evaluation on the first 20 pages. Front and back sides of pages may be used (for a total of 20 pages of content). The cover page and table of contents are included within the page limit.
3. Information provided by the Firm must be responsive to the RFP and relevant to criteria.
4. Firms must address all information specified by this RFP, organized in the order listed below, to be deemed responsive.
5. **Questions.** It is the responsibility of each Firm before submitting a response to examine the proposal documents thoroughly and request an interpretation or clarifications via email soon after discovering any conflicts, ambiguities, errors, or omissions in the proposal documents. **Requests for question clarification must be received no later than 10:00 AM on Monday, August 17, 2026.** The email must contain this RFP number, name, date, and numbered questions. Park Hill School District will not answer questions transmitted through facsimile or methods other than set forth in this paragraph. All questions will be answered in an addendum. The addendum will be posted to the district website on or before 2:00 PM CDT Tuesday, August 19, 2026. The District is not responsible for questions received after the due date, or questions in email lost due to spam filters or technical issues.
 - a. All questions shall be submitted to fryattm@parkhill.k12.mo.us and will be addressed by the District.
 - b. All addendums(s) must be signed and included with the submitted proposal. Any submissions without this signed acknowledgement may be considered non-responsive.
6. **Proposals are due on Tuesday, September 1, 2026 at 12:00 PM CDT.** Complete proposals should include the following
 - a. Title Page
 - b. Letter of Introduction
 - c. Table of Contents with page numbers to the following sections
 - i) Corporate Information
 - ii) Relevant Experience with Similar Projects
 - iii) Firm Personnel
 - iv) Product Specifications
 - v) Pricing Proposal
 - vi) Installation Plan
 - vii) Certifications and Compliance
 - viii) Alignment with District Strategic Goals and Core Values
 - ix) Firm's Interest and Value Proposition
 - d. Signed copy of RFP Addendum to acknowledge receipt (Addendum available on the district website on or before 2:00 PM CDT Tuesday, August 19, 2026)

PART IV – REVIEW AND SELECTION PROCESS

The District will utilize a committee and scoring rubric to evaluate the responses to this RFP and to narrow the list of firms to interview. The committee may include representatives from the following groups: staff members, Board of Education members, community members, students and architects. The committee will use a scoring rubric comprised of criteria detailed below by section.

PROPOSAL ORGANIZATION & SELECTION CRITERIA

To facilitate the evaluation process and ensure that all proposals are reviewed equitably, respondents are required to structure their submissions in the format outlined below. The District reserves the right to request additional information or clarification during the evaluation process.

I. Corporate Information

Provide:

- **Company name and address**
- **Years in business**
- **Primary contact information**
- **Overview of services offered**

II. Relevant Experience

Provide a minimum of three (3) similar signage projects completed within the last five years, including:

- **Project name**
- **Client name**
- **Project description**
- **Reference contact information**

III. Firm Personnel

Identify key personnel assigned to the project, including:

- **Project manager**
- **Design representative (if applicable)**
- **Installation lead**

IV. Product Specifications

Provide details regarding:

- **Proposed materials**
- **Manufacturing methods**
- **Finish options**

- Installation methods
- Maintenance information
- Warranty information

V. Pricing Proposal

Provide an itemized pricing breakdown as follows:

Item	Cost
West Sign Renovation	\$_____
East Sign Letter Replacement	\$_____
Alternate/Additive Options	\$_____
Total Proposed Cost	\$_____

Pricing shall include all labor, materials, equipment, delivery, installation, permits, taxes, overhead, profit, and incidentals.

VI. Installation Plan

Provide:

- Shop drawing timeline
- Fabrication timeline
- Installation schedule
- Estimated project completion date

VII. Certifications and Compliance

- Proof of insurance and bonding.
- Certifications (e.g. ASTM, ISO, FIFA Quality, etc.)
- Compliance with local, state, and federal regulations.

VII. Alignment with District Strategic Goals and Core Values

Demonstrate your firm's understanding of and alignment with the Park Hill School District's strategic vision and core values.

- Describe how your firm's approach supports the District's commitment to excellence, fiscal responsibility, equity, and community engagement
- Provide strategies your firm employs to ensure cost control, financial transparency, and sustainable long-term planning

IX. Firm's Interest and Value Proposition

Explain your firm's motivation and commitment to partnering with the Park Hill School District.

- a. Describe why your firm is particularly interested in this opportunity
- b. Highlight your firm's unique qualifications, innovative practices, or added value for the District, students, staff, and community
- c. Provide any additional information that reinforces your qualifications or distinguishes your team

REVIEW PROCESS

PROPOSAL EVALUATION

The period of evaluation is expected to occur within two weeks of the submissions date but may be extended if necessary. The committee will create a short list of firms that will be invited to the interview in-person.

The District will evaluate proposals using a best-value methodology.

Criteria	Weight
Relevant Experience	25%
Product Quality and Approach	20%
References	15%
Project Schedule	10%
Pricing	30%

The District reserves the right to:

- Reject any or all proposals.
- Waive informalities.
- Request clarification of submitted information.
- Conduct interviews if deemed necessary.
- Negotiate pricing or scope adjustments.
- Award the project in the best interest of the District.

This evaluation structure is consistent with the framework utilized in recent Park Hill capital project RFPs.

V. TERMS AND CONDITIONS

In submitting a response to this Request for Proposal vendors hereby understand the following:

A. Park Hill School District reserves the right to reject any and/or all submittals and responses to these and/or related documents, to accept any item(s) in the submittal, to waive any irregularity in the submittals, and further if determined to be non-responsive in any form, or if determined to be in the best interest of Park Hill School District.

B. Park Hill School District interprets the term "Lowest Responsible and Best Bidder" as requiring Park Hill School District to: (a) choose between the kinds of materials, goods, wares, or services subject to the proposal, and (b) determine which proposal is most suitable for its intended use or purpose. Park Hill School District can consider, among other factors, such things as references, past performance, the availability of service(s), part(s) material(s) and/or supply(s), warranty, maintenance, freight costs, performance of product and labor cost of items upon which proposals are received. Responses may be rejected if all proposal specifications are not met.

C. That Respondent, if an individual, is of lawful age and competent to enter into and perform the Work contemplated and, if a corporation, is duly incorporated and authorized to do business in this state.

D. That this Proposal is made without any understanding or agreement with any other person, firm or corporation submitting a proposal for the same purpose. That this Proposal is made without any understanding or agreement with any other person, firm, or corporation that such person, firm, or corporation refrain from responding and this Proposal is in all respects fair and without collusion or fraud.

E. That no member of the Board of Education of this District, nor any officer, employee or person whose salary is paid by said District, in whole or in part, is directly or indirectly interested in this Proposal or any labor or material to be supplied under any Contract or any portion of the profits.

F. That the prices stated herein are net, exclusive of all federal, state, and municipal sales and excise taxes.

G. Alternate proposals (two or more proposals submitted) will be considered for an award. Park Hill School District reserves the right to make the final determination of actual equivalency or suitability of such proposals with respect to requirements outlined herein. The proposals submitted, and any further information acquired through interviews, will become and is to be considered a part of the final completed contract. If there is any variance or conflict, the proposal specifications will control.

H. Respondents MUST mail the requested fully completed documentation to the Park Hill School District Operations Department at 9501 N Seymour Ave., Kansas City, MO 64153 or before the date and time specified. Proposals received after that time will not be accepted nor considered.

I. All requested information must be supplied. If respondents cannot respond to any part of this request, respondents should state the reason they cannot respond and note an exception. Respondents may provide supplemental information to assist Park Hill School District in analyzing its proposal.

J. If the respondent refuses or fails to make deliveries of the materials within the times specified on the face of the Request for Proposal or purchase order, Park Hill School District may, by written notice, terminate the contract or purchase order.

K. The respondent will certify and warrant that goods, personal property, chattels, and equipment sold and delivered are free and clear of any and all liens or claims of liens.

L. The successful respondent will hold and save Park Hill School District, and its officers, agents, servants/employees harmless from liability of any patented, or unpatented invention, process, article, or appliance manufactured, or used in the performance of the contract, including its use by Park Hill School District. Vendors working on Park Hill School District property or on behalf of Park Hill School District will be required to carry minimum insurance listed in RFP document.

M. All items furnished, if applicable, must be the best of their respective kinds, and will be free from defects in material and workmanship. Items will be subject to Park Hill School District inspection and approval at any time within 30 days after delivery. If a substitution is made, it will be the decision of a Park Hill School District representative to determine if it is of equal quality. Items furnished must be manufactured in compliance with all existing legal or governmental directives.

N. All proposals shall be valid and constitute an irrevocable offer to contract on the terms and conditions contained in this Request for Proposals for ninety (90) days after opening. Contracts entered into based on submitted proposals are revocable if contrary to law.

O. All project participants, consultants, engineers, contractors, and subcontractors, must comply with all applicable Federal, State and Local laws pertaining to contracts entered into by governmental agencies. All participants must comply with the Americans with Disabilities Accessibility Guidelines (ADAAG).

P. The respondent responding to this proposal solicitation proposes to furnish all materials, labor, supplies, equipment and incidentals necessary to provide the equipment/materials/services described herein in accordance with the Notification of Solicitation (if applicable), Request for Information (if applicable), Request for Proposal, Addenda, Contract, Bonds, Insurance, Plans, Specifications, any Instructions, Mandatory Requirements and Conditions.

Q. Unless specified elsewhere in the document, all prices quoted must be F.O.B. specified destination and will include all delivery, handling, and any other charges related to delivery including surcharges.

R. The respondent hereby certifies that he or she has carefully examined all of the documents for the project, has carefully and thoroughly reviewed this Request for Proposal, has inspected the location of the project (if applicable), and understands the nature and scope of the work to be done; and that this proposal is based upon the terms, specifications, requirements, and conditions of the Request for Proposal documents. The respondent further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope of the project as previously mentioned.

S. It will be understood that any submittal and any and/or all referencing information submitted in response to this Request for Proposal will become the property of Park Hill School District and will not be returned. As an educational entity, Park Hill School District is subject to making records available for disclosure after Board of Education approval of the recommendation.

T. Park Hill School District will not be responsible for any expenses incurred by any vendor in the development of a response to this Request for Proposal including any onsite (or otherwise) interviews and/or presentations, and/or supplemental information provided, submitted, or given to Park Hill School District and/or its representatives. Further, Park Hill School District will reserve the right to cancel the work described herein prior to issuance and acceptance of any contractual agreement/purchase order by the recommended vendor even if the Board of Education has formally accepted a recommendation.

U. By submission of a response, the respondent agrees that at the time of submittal, he or she: (1) has no interest (including financial benefit, commission, finder's fee, or any other remuneration) and will not acquire any interest, either direct or indirect, that would conflict in any manner or degree with the performance of the respondent's services, or (2) benefit from an award resulting in a "Conflict of Interest". A "Conflict of Interest" will include holding or retaining membership, or employment, on a board, elected office, department, or committee sanctioned by and/or governed by the Park Hill School District Board of Education. Respondents will identify any interests, and the individuals involved, on separate paper with the response and will understand that Park Hill School District may reject their proposal/quotation. The respondent certifies that this proposal is submitted without collusion, fraud, or misrepresentation as to other respondents, so that all proposals for the project will result from free, open, and competitive bidding among all vendors.

V. Park Hill School District will issue a purchase order/contract for the acquisition of products/services specified as a result of an award made in reference to this document. Contract documents will be subject to any regulations governed by the laws of the State of Missouri and any local resolutions specifically applicable to the purchase.

W. Any dispute arising out of the contract documents, or their interpretation will be litigated only within the courts of the State of Missouri. No prepayment of any kind will be made prior to shipment. Payment will be made upon verification of delivery, compliance with specifications, assurance that the product/service performs as specified and warranted, and receipt of correct invoicing.

X. Park Hill School District requests a just in time order process to alleviate storage issues and to ensure factory warranty stays engaged until products are installed.

Y. If a current update to a product is available, please provide the current solution and note the change.

Z. All associated costs required to complete project as specified should be included in your final proposal.

AA. Empty fields in a Respondent's pricing sheet(s) will be assumed to indicate that there is no bid on that particular item.

BB. Park Hill School District reserves the right to request a written extension of their bid price through a specific date.

VI. SIGNATURE PAGE

The undersigned, on behalf of the Respondent, certifies that: (1) this offer is made without previous understanding, agreement or connection with any person, firm, or corporation making a bid on the same project; (2) is in all respects fair and without collusion or fraud; (3) the person whose signature appears below is legally empowered to bind the firm in whose name the proposal is entered; (4) they have read the complete Request for Proposal and understand all provisions; (5) if accepted by Park Hill School District, this Proposal is guaranteed as written and amended and will be implemented as stated; and (6) mistakes in writing of the submitted Proposal will be respondent responsibility.

Name of Respondent: _____

Primary Contact: _____

Email Address: _____

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Phone Number: _____

Fax: _____

Signature: _____

PARK HILL HS STADIUM IMPROVEMENTS

FOOTBALL PRESS BOX SIGNAGE

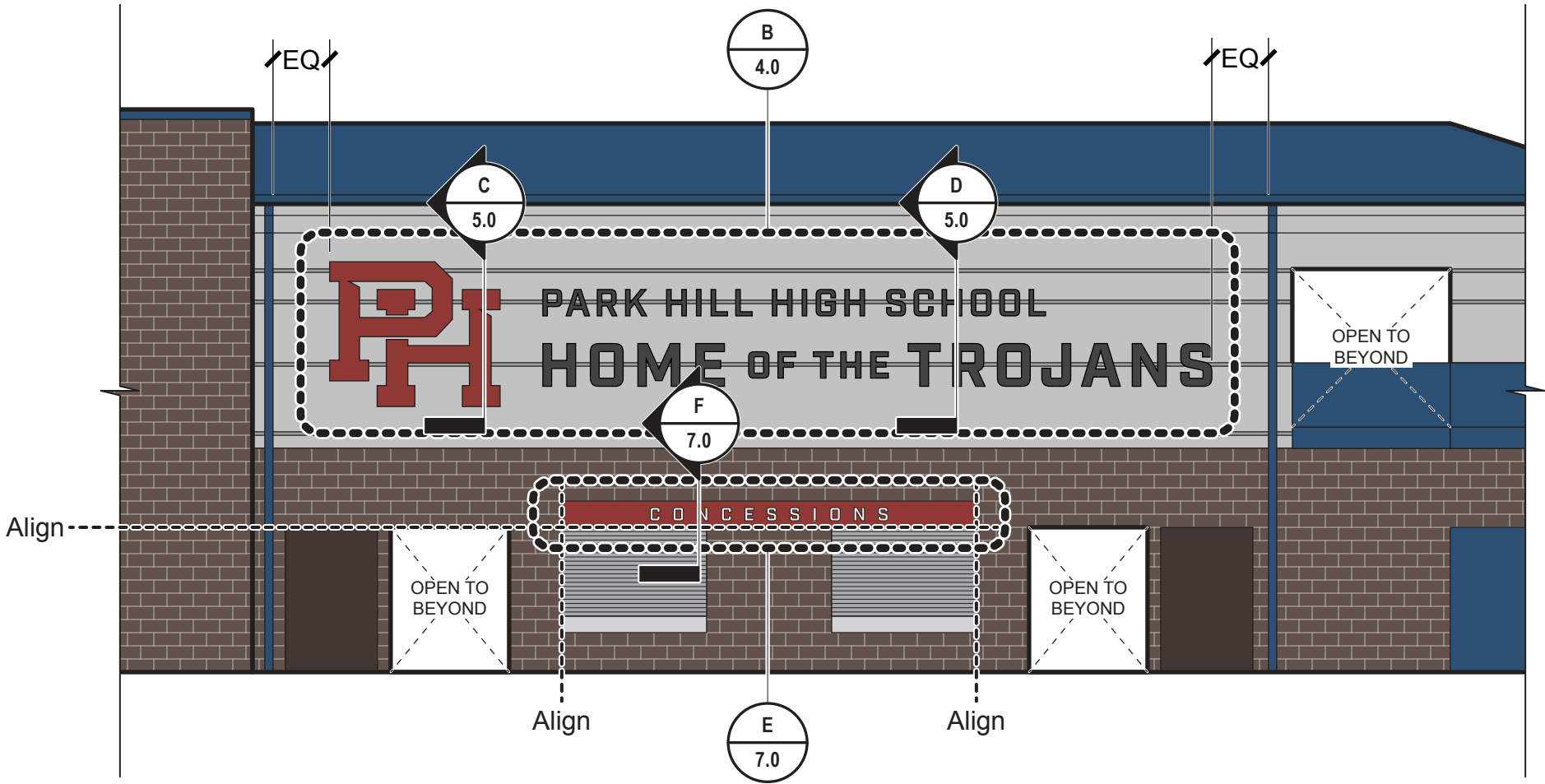
25132.00 – Park Hill SD PHHS Stadium Improvements
Park Hill School District

July 24, 2026

DEMO NOTES

- ① Coordinate removal of existing signage by others





NOTES

Base Bid: Non-illuminated PH & letters

Alternate: Illuminated PH & letters. Signage contractor responsible for all electrical work

Concessions signage is non-illuminated for both Base Bid and Alternate.

Artwork to be supplied by Architect.

All dimensions and mounting conditions must be verified in the field and included in shop drawings.

All attachments to be concealed UNO.

NOTES

Base Bid: Non-illuminated PH & letters

Alternate: Illuminated PH & letters. Signage contractor responsible for all electrical work

Artwork to be supplied by Architect.

All dimensions and mounting conditions must be verified in the field and included in shop drawings.

All attachments to be concealed UNO.



BASE BID:
10 14 00.A10
Face and return paint color TBD
Satin finish
Seams welded, sanded and painted so as to appear seamless

ALTERNATE:
10 14 00.A11
Full bleed flex face sign
Translucent face print color TBD
Return paint color TBD
Satin finish

BASE BID:
10 14 00.A10
Paint face and returns SW 7069 Iron Ore
Satin finish

ALTERNATE:
10 14 00.A12
Aluminum
Trimless halo illuminated with 3/4" visible acrylic
Paint face and returns SW 7069 Iron Ore
Satin finish

B Detail - PH & Letters
SCALE: 1/4" = 1'-0"

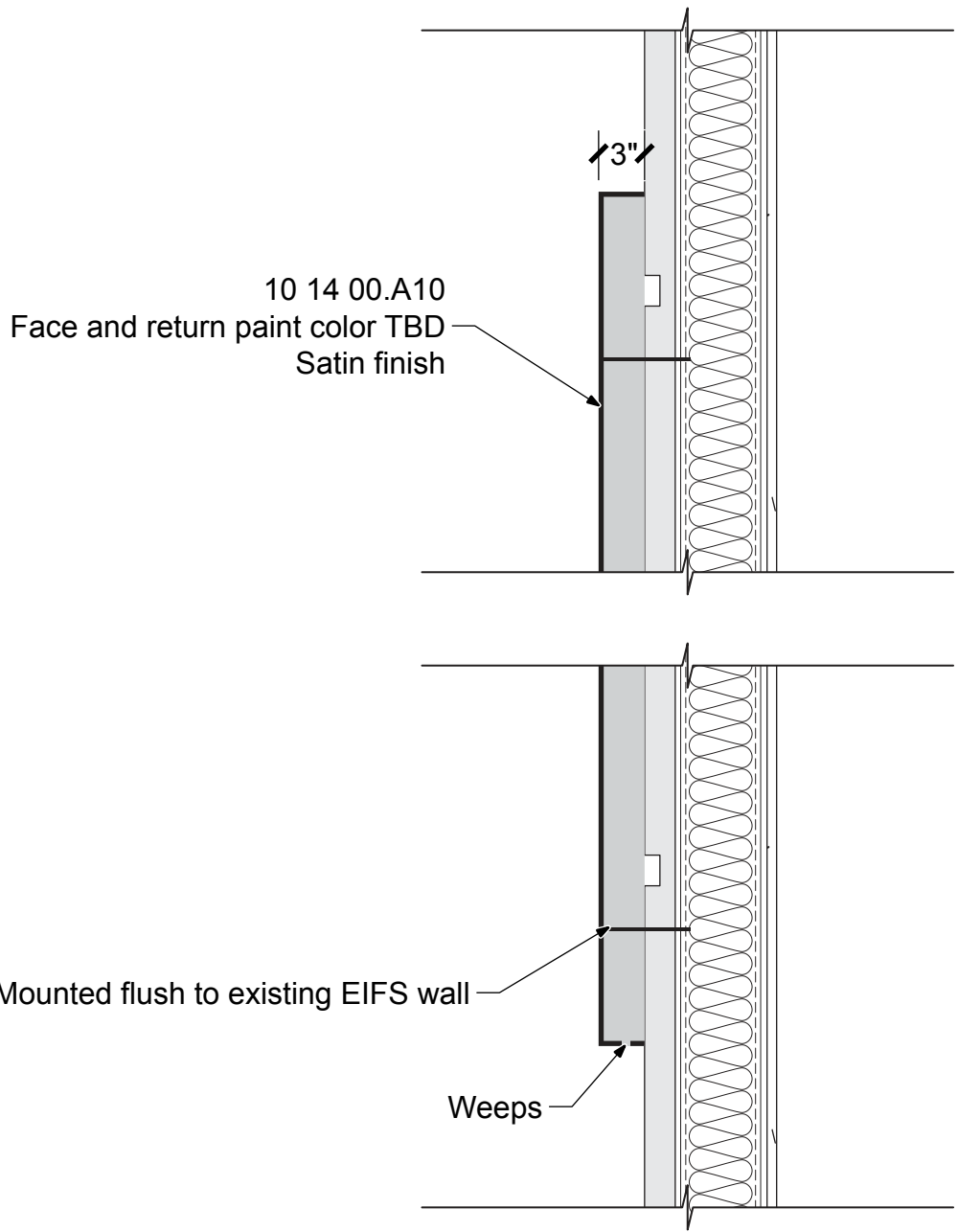
NOTES

Base Bid: Non-illuminated PH & letters

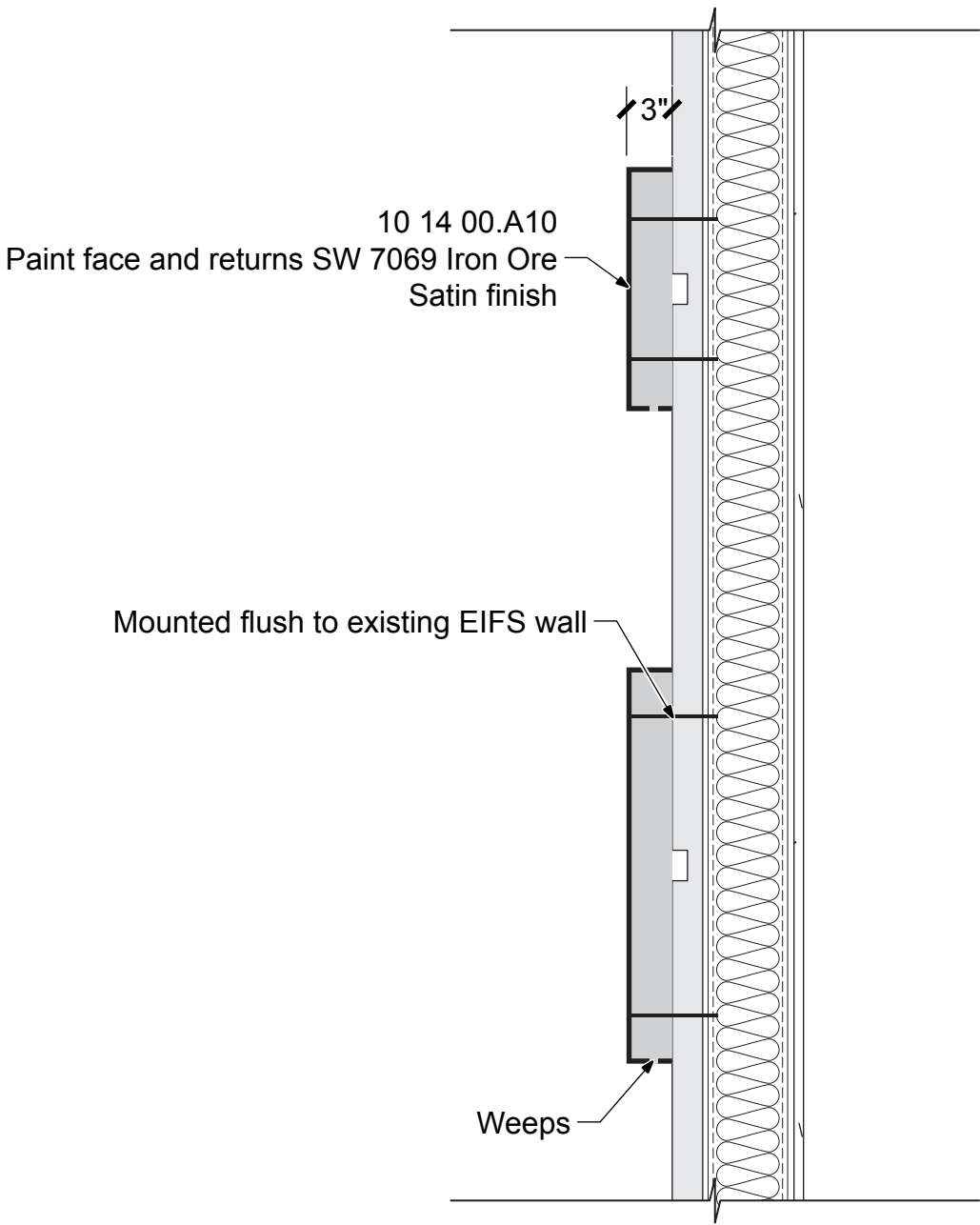
Artwork to be supplied by Architect.

All dimensions and mounting conditions must be verified in the field and included in shop drawings.

All attachments to be concealed UNO.



C Section - PH - Base Bid
SCALE: 1" = 1'-0"



D Section - Letters - Base Bid
SCALE: 1" = 1'-0"

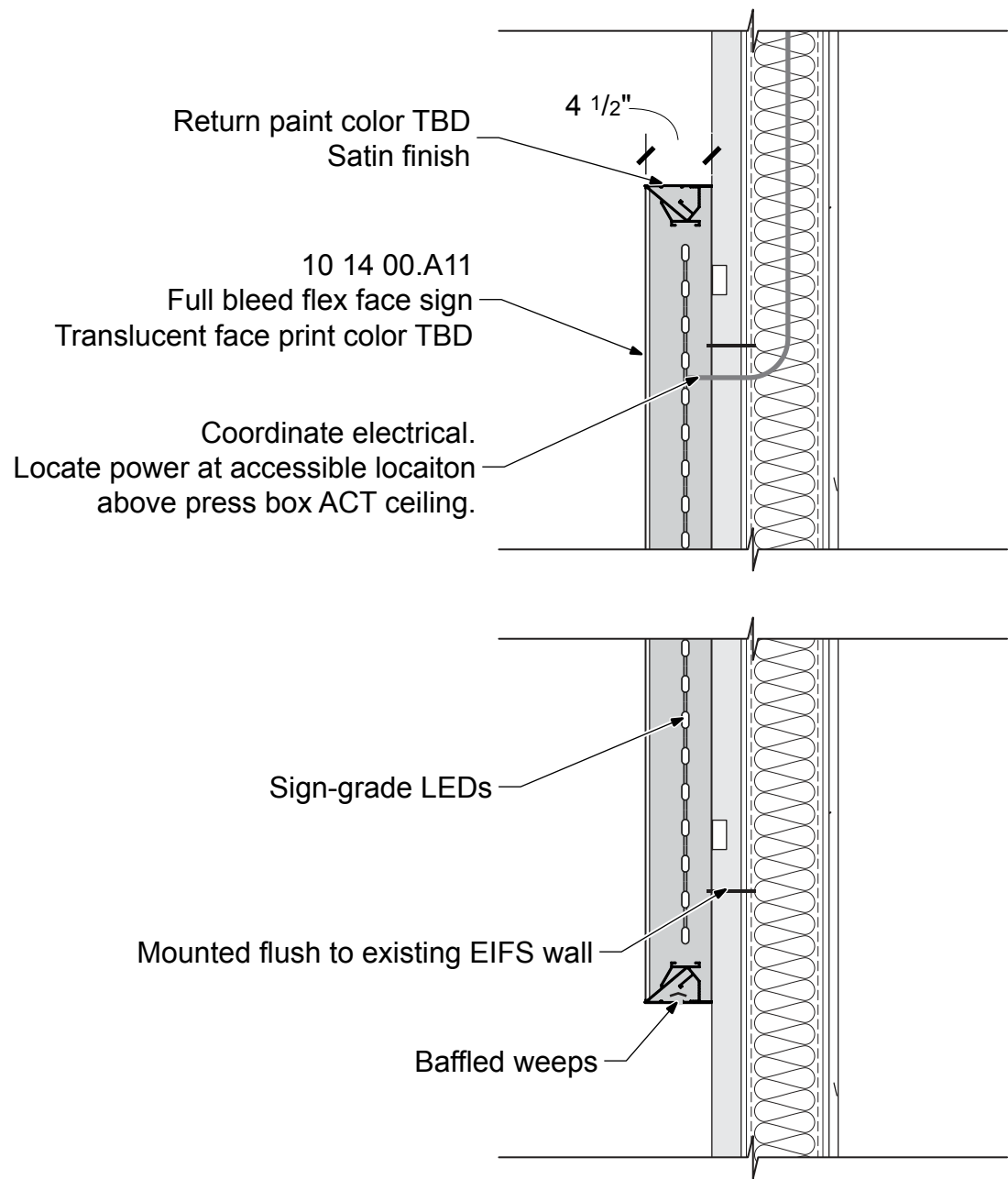
NOTES

Alternate: Illuminated PH & letters. Signage contractor responsible for all electrical work

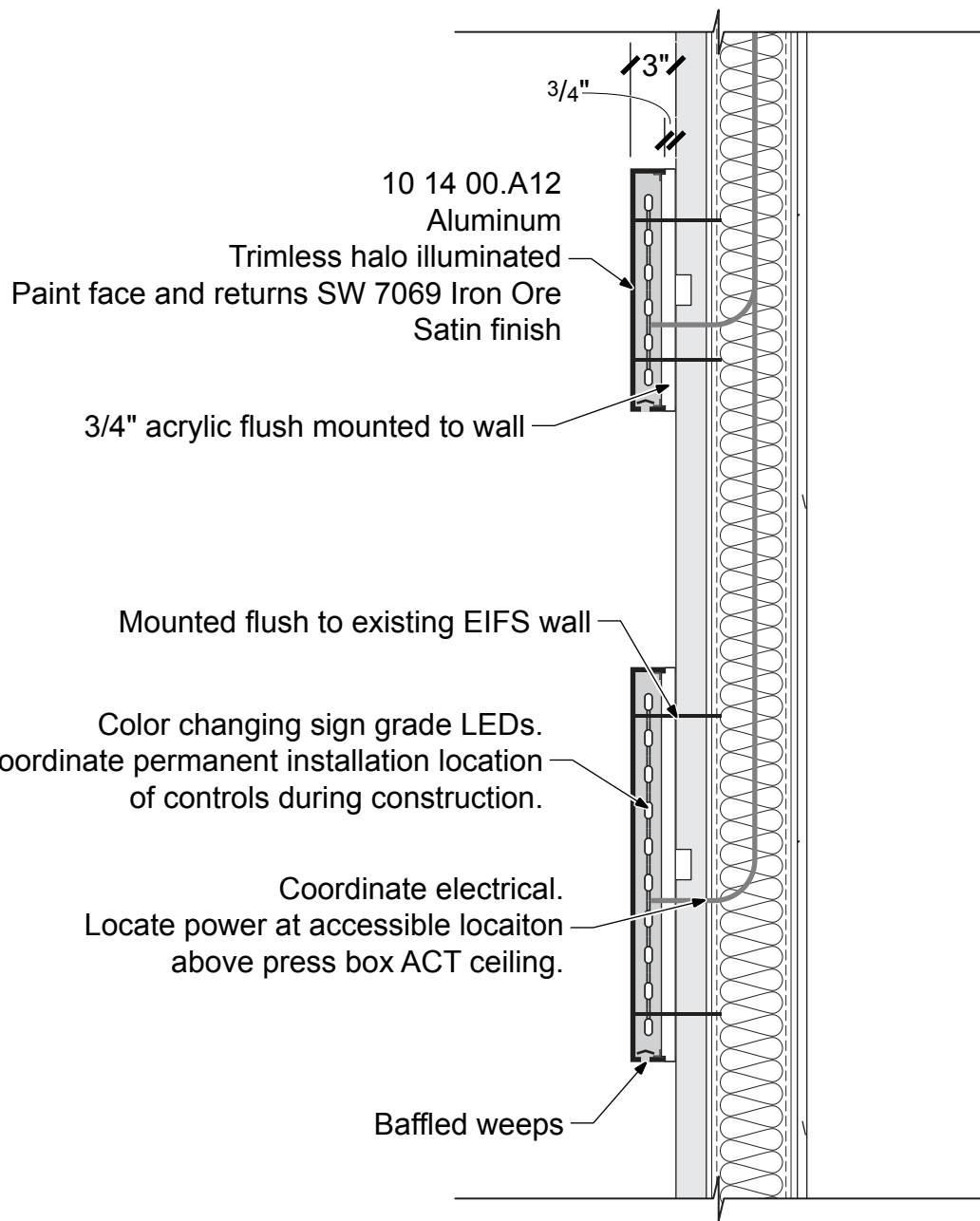
Artwork to be supplied by Architect.

All dimensions and mounting conditions must be verified in the field and included in shop drawings.

All attachments to be concealed UNO.



C-A Section - PH - Alternate
SCALE: 1" = 1'-0"



D-A Section - Letters - Alternate
SCALE: 1" = 1'-0"

SECTION 101400 - SIGNAGE

PART 1 GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Signage:
 - a. Fabricated:
 - 1) Non-illuminated (101400.A10).
 - 2) Illuminated – Face Lit (101400.A11).
 - 3) Illuminated – Halo Lit (101400.A12).

1.2 DEFINITIONS

- A. ADA-ABA Accessibility Guidelines: U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines."
- B. Final Artwork: High resolution digital files to be used for production (including digital printing).
 - 1. Graphics shown in drawings are placeholders only.
 - 2. Final artwork to be supplied by Designer (or architect), after approval from Owner, to Signage contractor.
 - 3. Signage Contractor to use final art in creating shop drawings for approval by Designer,
- C. Signage Contractor: Contractor responsible for the fabrication and installation of signage unless responsibility for fabrication or installation is called out by others in the drawings.

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Conference: Conduct conference at Project site.
 - 1. Review and finalize construction schedule including submittals, engineering, fabrication and installation. Verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Review temporary protection requirements for during and after installation.
 - 3. Architect to work with Contractor to arrange the meeting. Architect to set agenda and run the meeting.
- B. Signage Contractor is responsible for obtaining all required signage permits.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Signage Contractor is responsible for obtaining all required signage permits.

1.5 PRE-INSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.
 - 1. Review and finalize construction schedule including submittals, engineering, fabrication and installation. Verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 2. Review temporary protection requirements for during and after installation.
 - 3. Architect to work with Contractor to arrange the meeting. Architect to set agenda and run the meeting.

1.6 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Including but not limited to, the following:
 - 1. Manufacturer's technical product data for each type of product specified. Include data on physical characteristics, durability, fade resistance, flame resistance and manufacturing process.
 - 2. Product data shall show compliance with requirements for fire performance characteristics and physical properties.
- B. Shop Drawings: Submit shop drawings for fabrication and erection of signs and supports. Include plans, elevations, and large scale details of sign wording and lettering layout. Include large scale sections of typical members and other components.
 - 1. Show fabrication joints and fasteners. Show anchors, grounds, reinforcement, accessories, layout, and installation details including attachments to other work. Indicate materials and profiles of signage fittings, joinery, finishes, fasteners, anchorages, and accessory items.
 - 2. Show sign mounting heights, locations of supplementary supports to be provided by others, and accessories.
 - 3. Based on Message Schedule approved by Owner, provide sign layouts for all signs:
 - a. Indicate message line breaks.
 - b. Include large scale details of signs wording and lettering layout, pictograms (arrows and symbols), artwork, and Braille layout.
 - c. Include outline of sign face, character spacing, line spacing, and copy composition.
 - d. Submit product data simultaneously for overall review and comparison prior to fabrication.
 - 4. Include a panel map for each vinyl film sign to coordinate installation.
 - 5. Field Dimensions shall be obtained, reviewed, and accepted by signage manufacturer prior to submittal of shop drawings. Refer to Article 1.6 H. "Field Dimensions for Environmental Graphics."
 - 6. For signage required to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
 - 7. Wiring Diagrams: For illuminated signs and illuminated characters. Include locations of transformers and disconnect switches.
 - 8. For signs supported by or anchored to permanent construction, provide setting drawings, full-size spacing templates, and directions for installation of anchor bolts and other appropriate anchors to be installed.
 - 9. Submit drawings in 11 inch by 17 inch format unless otherwise requested by the Architect.
 - 10. Submit all shop drawings as a single package by Signage Contractor.
- C. Sign Schedule: Use same designations indicated on Drawings.
- D. Samples for Initial Selection: Manufacturer's color charts consisting of actual units or sections of units showing the full range of colors available for the following:
 - 1. Sign Types:
 - a. Paint samples for all colors.
- E. Samples for Verification:
 - 1. Submit full-size samples of signage. Quantity and type shall be determined by Architect with intent of one sample per each signage type representative of all types of products indicated.
 - a. Sign Types:
 - 1) Submit full scale letter "C" from "CONCESSIONS".
 - 2. Submit 12-inch-long actual samples of each accessory required.
- F. Delegated-Design Submittal: For all signage unless otherwise noted.
 - 1. Signage Contractor is responsible for determining proper mounting, fastening and anchoring methods including the design of concrete bases, concrete footings, and anchorage to signage frame for all signs unless noted otherwise. Determination to account for surface material sign is being mounted upon.
 - 2. Drawings are for aesthetic and functional design intent, only. No instructions for structural appropriateness have been made. It is the responsibility of the signage contractor to ensure that all elements are fabricated for a stable and durable installation while adhering to the aesthetic details indicated.
 - 3. Professional Engineer Qualifications: A legally qualified professional engineer licensed in the State of Missouri who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for design and installations of signs, flagpoles, and miscellaneous support that is similar to those indicated for this Project in material, design, and extent. Include structural analysis calculations for signs indicated to comply with design loads; signed and sealed by the qualified professional engineer responsible for their preparation.

- G. Mockups/Field Samples: Build mockups/field samples to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution. Approved Mock-ups to be incorporated into final work on site.
 - 1. Build mockups/field samples for environmental graphics and signage and additional signage as requested:
 - a. If alternate is accepted, shop visit to approve completed, illuminated signage prior to installation.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 3. Subject to compliance with requirements, approved mockups/field sample areas may become part of the completed work if undisturbed at the time of Substantial Completion.
 - a. Contractor shall be held responsible for unsuccessful installations of vinyl graphic film that damage substrate during construction.
 - b. Direct Print Graphic to be installed in location deemed acceptable by the Architect/Owner prior to full install.
- H. Field Dimensions for Graphic Design:
 - 1. Provide field dimensions to Architect for graphic design of graphics.
 - a. Field dimensions shall be accepted by Architect prior to final art release.
 - 2. Include dimensions, locations, and graphic depictions of all disruptions within the field of wall surface indicated to receive graphic signage. Examples of disruptions of wall surface include, but are not limited to, the following:
 - a. Louvers, Vents, Ductwork, Thermostats.
 - b. Outlets, Light Switches, Light Fixtures, and Conduit.
 - c. Wall Base, Baseboards, Corner Guards, Expansion Joints, and Reveal Joints.
 - d. Motion Sensors.
 - e. Fire Alarm Devices.
 - f. Fire Extinguishers and Fire Extinguisher Cabinets.
 - g. Furnitures.
 - h. ADA signage, Room Signage, and other Code required signage.
 - i. Doors and Windows.
 - j. Mullions, Frames, and Handles.
 - k. Televisions.
 - l. Other obstructions to wall or glazing surfaces not listed that would adversely affect wall graphic design.
 - 3. Elevations and dimensions shall be drawing using a computer aided drafting program and submitted in a legible format.
 - 4. Dimensional Tolerance: 1/8-inch maximum.
 - 5. Dimensions shall be reviewed and accepted by signage manufacturer prior to submittal of shop drawings.

1.7 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For fabricator.
- B. Warranty: Special warranty specified in this Section.

1.8 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For signs to include in maintenance manuals. Include the following:
 - 1. Include precautions for use of cleaning materials and methods that could be detrimental to finishes and performance/longevity of film graphics
- B. Warranty: Provide warranty documentation for signage.

1.9 QUALITY ASSURANCE

- A. Signage Contractor Qualifications: All sign fabrication within this section shall be performed by a signage contractor with the following:

1. A minimum of five (5) years experience producing architectural signs, and a minimum of five (5) years experience producing compliant signs as specified in ANSI 117.1 (1986), Minimum Guidelines and Requirements for Accessible Design (MGRAD), Uniform Federal Accessibility Standards (UFAS) and American with Disabilities Act Accessibility Guidelines (ADAAG).
 2. A firm that employs skilled workers experienced in producing custom-fabricated products similar to those required for this Project and with at least seven years continuous experience under the current company name. Fabricator shall have a record of successful in-service performance, as well as sufficient production capacity to produce required units.
 3. Fabricator shall have completed at least seven (7) similar signage projects having similar requirements within the last four (4) years for each signage type.
 4. 3M-certified printer and 3M-certified installer. Subcontracting to a 3M-certified printer is acceptable.
- B. Uniformity of Manufacturer: For each separate type of sign and graphic image required, obtain signs from a single manufacturer.
1. Manufacturer's name, trade name, or trademark shall not appear on any visible surface.
- C. Regulatory Requirements: Comply with applicable provisions in ADA-ABA Accessibility Guidelines. Comply with applicable provisions in ICC/ANSI A117.1.
- D. Fire Performance Characteristics: Provide wall coverings with the following surface burning characteristics as determined by testing identical products per ASTM E 84 by UL or other testing and inspecting organizations acceptable to authorities having jurisdiction. Identify wall coverings with appropriate markings of applicable testing and inspecting organization.
1. Flame Spread: 5 or less.
 2. Smoke Developed: 25 or less.
- E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, National Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- F. Aesthetic Requirements: Provide copy with straight and true edges; space characters as indicated; reproduce type style accurately with square corners and even curves; provide uniform letters and symbols; and provide smooth finishes with no visible imperfections.
- G. ADA Accessibility Guidelines: Signage shall comply with the ADA Accessibility Guidelines where applicable. Characters and graphics, including but-not limited to, copy height, letter stroke symbols, materials, and finishes indicated on the Drawings are intended as guidelines for compliance. Implement each applicable ADA guideline. Should conflicts arise, notify the Designer before proceeding.
- H. Inspections: The Architect reserves the right to periodically visit the Signage Contractor's facilities to inspect and review layouts.

1.10 DELIVERY, STORAGE AND HANDLING

- A. Use special care in handling to prevent twisting, warping, nicking, and other damage to signage. Store materials to permit easy access for inspection and identification.
1. Keep aluminum off ground and spaced by using pallets, dunnage, or other supports and spacers. Protect aluminum and packaged materials from corrosion and deterioration.
- B. Coordinate delivery and storage of sign materials with the Owner. Schedule delivery to minimize storage requirements.
- C. Store signage in a well-ventilated area, away from uncured concrete and masonry, and protected from weather, moisture, soiling, abrasion, extreme temperatures, and humidity. Materials stored at the Project Site without prior approval of the Owner, may have to be relocated at the sign Signage Contractor's expense.

1.11 PROJECT CONDITIONS

- A. Weather Limitations for Exterior Signage: Proceed with installation only when existing and forecasted weather conditions permit installation of signs in exterior locations to be performed according to manufacturers' written instructions and warranty requirements.

- B. Field Measurements: Verify recess openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.12 COORDINATION

- A. Signage Contractor is responsible for preparing a schedule indicating engineering, fabrication, delivery, installation, and final inspection of the work. Submit this schedule to the Architect and Owner for approval and coordination with other work at the Project Site.
- B. Installation:
 - 1. Coordinate installation with the Owner, Construction Manager, and other trades.
 - 2. For signs supported by or anchored to permanent construction, coordinate specific requirements for types and placement of anchorage devices and similar items to be used for attaching signs. Deliver such items to Project Site in time for installation.
 - 3. Signage Contractor is responsible for furnishing setting drawings, installation templates and directions for installing for appropriate blocking, anchorage devices, and electrical conduits.
 - 4. Signage Contractor to coordinate all appropriate blocking needed.
 - 5. Signage Contractor to schedule for preparation and installation to be completed by substantial completion.
 - 6. Signage Contractor to coordinate with Construction Manager and Owner on building access to allow for adequate timing for completion prior to substantial completion.
- C. Coordinate location of remote transformers with building construction. Ensure that any transformers are accessible after completion of work. Contractor responsible for electrical work that needs to be done.

1.13 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Deterioration of metal and polymer finishes beyond normal weathering.
 - b. Deterioration of embedded graphic image colors.
 - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 MATERIALS, GENERAL

- A. General: Use materials of size and thickness indicated or, if not indicated as required to produce strength and durability in finished product for use intended. Work to dimensions shown or accepted on shop drawings, using proven details of fabrication and support. Use type of materials shown or specified for various components of work.
- B. All materials shall be new stock, free from defects impairing strength, durability, and appearance. No fabrication or installation materials or procedures shall be used that will in any way change the usual quality or in any manner have an adverse effect on existing materials and surfaces.
- C. Graphic Content and Style: Provide sign copy that complies with requirements indicated in the Message Schedule on Drawings, and on artwork for size, style, spacing, content, mounting height and location, material, finishes, and colors of signage. All digital prints to be high resolution output.
- D. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. Provide materials without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- E. Aluminum, General: Provide alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with strength and durability properties for each aluminum form required not less than that of alloy and temper designated below.
 - 1. Plate and Sheet: ASTM B 209, Alloy 5005-H32 or Alloy 6061-T6.
 - 2. Material Gauge: Produce Fabricated Aluminum Signs with .090" faces and .063" returns.

3. Castings: ASTM B 26/B 26M, of alloy and temper recommended by sign manufacturer for casting process used and for use and finish indicated.
 4. Extrusions: ASTM B221, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.
 - a. Basis-of-Design Product: Subject to compliance with requirements, provide one of the manufacturers below or approved comparable product prior to bid.
 - 1) SignComp Extrusions and Systems (877.784.0405).
 - 2) Excellart (800.627.0944)
 - (a) Provide "ESP-FLEX STANDARD w/ BLEED TRIM" system for the sides of the flex face sign.
 5. Aluminum Extrusions: ASTM B 221 (ASTM B 221M), alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of alloy 6063-T5.
 - a. Mounting: Concealed studs, non-corroding for substrates encountered.
 6. Cutting: Computer guided lasers cut letters, logos or shapes.
 7. Construction: Cut letter returns from .063" coil (1", 1.5", 2", 3", 4", 5", 6") to size based on the desired letter depth, bent to the contour of the laser cut faces to produce a hollow-backed letter with 90° angle edges. Inside joints are MIG welded with 1"-1.5" intervals. Finish exposed welds and surfaces smooth, flush, and blended to match adjoining surfaces.
 - a. For Exterior Applications: Provide weep holes to drain water at lowest part of exterior signage. Equip weeps with permanent baffles to block light leakage without inhibiting drainage.
 8. Performance: Welds are tested for strength. Finishes are Salt Fog tested to ASTM B-117-95 for corrosion resistance.
 9. Finishes:
 - a. Painted finish – DA sanded face & returns, primed, then sprayed; refer to "Coatings and Paintings" Paragraph.
- F. Acrylic Sheet: ASTM D 4802, category as standard with manufacturer for each sign, Type UVA (UV absorbing).
1. Acrylic for LED's Basis-of-Design Product: Subject to compliance with requirements, provide "Acrylite LED Sign Grade" or a comparable product of an approved manufacturer. Submit in accordance with substitution requirements found in Section 012500 "Substitution Procedures".
- G. Flexible face 'fabric':
1. Basis-of-Design Product: Subject to compliance with requirements, provide "3M Panagraphics III Wide Width Flexible Substrate" or a comparable product of an approved manufacturer. Submit in accordance with substitution requirements found in Section 012500 "Substitution Procedures".
 2. Provide over-laminate as recommended by manufacturer for increased durability.
- H. Light Emitting Diodes (LEDs): Fabricated letters lit with 12-volt DC LEDs - optional lighting packages.
1. Construction:
 - a. Face lit letters with outline and acrylic inserts.
 - b. Back (Halo) lit letters with clear or light-diffused polycarbonate backs.
 2. Removable cans or detachable stud options for mounting lit letters and allowing future servicing of LEDs.
 3. UL Listed Sign Sections with Class 2 power supplies, lead wires/cables, wiring diagrams and installation instructions supplied.
- I. Structural Steel: Refer to Section 055000 "Metal Fabrications".
- J. Steel:
1. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.
 2. Steel Channels, Plates, Shapes, and Bars: ASTM A 36/A 36M.
 3. Rolled-Steel Floor Plate: ASTM A 786/A 786M, rolled from plate complying with ASTM A 36/A 36M or ASTM A 283/A 283M, Grade C or D.
 4. Steel Tubing: ASTM A 500/A 500M, cold-formed steel tubing.
 5. Steel Pipe: ASTM A 53/A 53M, Standard Weight (Schedule 40) unless otherwise indicated.

2.2 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- D. Acrylic Sheet Finishes
 - 1. Colored Coatings for Acrylic Sheet: For copy and background colors, provide colored coatings, including inks, dyes, and paints, that are recommended by acrylic manufacturers for optimum adherence to acrylic surface and that are UV and water resistant for five years for application intended.
- E. Coatings and Paints: Inks, dyes, and paints that are recommended by manufacturer for optimum adherence to surface and are UV and water resistant for colors and exposure indicated.
 - 1. Industrial Paint Finish:
 - a. Basis of Design: Provide acrylic polyurethane "MAP-LVG Ultra Low VOC" by Matthews Paint Company or a comparable product submitted to and accepted by Architect with the following product characteristics.
 - 1) Finish: Satin.
 - b. Finished coated surface shall provide a minimum of 150 in/lbs of impact resistance on all exposed faces.
 - c. All edges and faces shall have a seamless finish unless indicated otherwise on drawings.
 - 2. Powder-Coat:
 - a. Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils (0.04 mm) Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and backing finish.

2.3 ACCESSORIES

- A. Anchors and Inserts: Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion resistance. Use toothed steel or lead expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.
 - 1. Use concealed fasteners and anchors unless indicated to be exposed.
 - 2. Exposed Metal-Fastener Components, General:
 - a. Fabricated from same basic metal and finish of fastened metal unless otherwise indicated.
 - b. Fastener Heads: For nonstructural connections, use oval countersunk screws and bolts with tamper-resistant, Allen-head slots unless otherwise indicated.
- B. Visible studs shall have sleeves painted to match color specified by Architect.

2.4 FABRICATION

- A. General: Provide manufacturer's standard signs of configurations indicated.
 - 1. Welded Connections: Comply with AWS standards for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or discoloration of exposed side. Clean exposed welded surfaces of welding flux and dress exposed and contact surfaces.
 - 2. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
 - 3. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.
 - 4. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.
 - 5. Internally brace signs for stability and for securing fasteners.

6. Provide rebates, lugs, and brackets necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.
 7. Castings: Fabricate castings free of warp, cracks, blowholes, pits, scale, sand holes, and other defects that impair appearance or strength. Grind, wire brush, sandblast, and buff castings to remove seams, gate marks, casting flash, and other casting marks before finishing
- B. Brackets: Fabricate brackets, fittings, and hardware for bracket-mounted signs to suit sign construction and mounting conditions indicated. Modify manufacturer's standard brackets as required.
1. Aluminum Brackets: Factory finish brackets with baked-enamel or powder-coat finish to match sign-background color unless otherwise indicated.

2.5 FABRICATED CHARACTERS:

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the work include, but are not limited to, the following:
1. Gemini Incorporated.
 2. Star Signs, Inc.
 3. Young Sign Company.
- B. Refer to Article 2.1 for material technical information.
1. Material: High-Grade
- C. Non-illuminated Fabricated Channel Characters (101400.A10): Fabricate sign to the required sizes and styles, using metals and thicknesses indicated in article 2.1 "MATERIALS, GENERAL." Form exposed faces and sides of characters to produce surfaces free from warp and distortion, sharp corners and precisely forms lines and profiles. Include internal bracing for stability and attachment of mounting accessories. Comply with the following requirements:
1. Material: High-Grade
 - a. Sign Body:
 - 1) Aluminum 5052 Alloy.
 2. Finish
 - a. Aluminum:
 - 1) Industrial Paint Finish.
 3. Refer to Drawings for:
 - a. Sign Height, Width and Depth.
 - b. Typeface and Character Spacing.
 - c. Color.
 - d. Mounting Position.
 4. Welding: Use welding method that is appropriate for metal and finish indicated and that develops full strength of members joined. Finish exposed welds and surfaces smooth, flush, and blended to match adjoining surfaces.
 5. Weeps: Provide weep holes to drain water at lowest part of exterior characters. .
- D. Illuminated – Face Lit Fabricated Channel Characters (101400.A11): Fabricate sign to the required sizes and styles, using metals and thicknesses indicated below with LEDs (Light-emitting diodes) including transformers, insulators, and other accessories for operability, with provision for servicing and concealing connections to building electrical system. Form exposed faces and sides of characters to produce surfaces free from warp and distortion, sharp corners and precisely forms lines and profiles. Include internal bracing for stability and attachment of mounting accessories. Use tight or sealed joint construction to prevent unintentional light leakage. Space lamps apart from each other and away from character surfaces as needed to illuminate evenly. Comply with the following requirements:
1. Power: As required for illumination indicated on drawings, coordinate with electrical drawings. Conceal all transformers and coordinate access with Architect and Construction Manager.
 2. Material: High-Grade
 - a. Sign Body:
 - 1) Aluminum 5052 Alloy.
 3. Translucent Sign Face: Provide translucent flex face printed custom color.
 4. Finish:
 - a. Aluminum:
 - 1) Industrial Paint Finish.

5. Refer to Drawings for:
 - a. Sign Height, Width and Depth.
 - b. Typeface and Character Spacing.
 - c. Color.
 - d. Mounting Position.
 6. Welding: Use welding method that is appropriate for metal and finish indicated and that develops full strength of members joined. Finish exposed welds and surfaces smooth, flush, and blended to match adjoining surfaces.
 7. Weeps: Provide weep holes to drain water at lowest part of exterior characters. Equip weeps with permanent baffles to block light leakage without inhibiting drainage.
- E. Illuminated – Trimless Halo Lit Fabricated Channel Characters (101400.A12): Fabricate sign to the required sizes and styles, using metals and thicknesses indicated below with LEDs (Light-emitting diodes) including transformers, insulators, and other accessories for operability, with provision for servicing and concealing connections to building electrical system. Form exposed faces and sides of characters to produce surfaces free from warp and distortion, sharp corners and precisely forms lines and profiles. Include internal bracing for stability and attachment of mounting accessories. Use tight or sealed joint construction to prevent unintentional light leakage. Space lamps apart from each other and away from character surfaces as needed to illuminate evenly. Comply with the following requirements:
1. Power: As required for illumination indicated on drawings, coordinate with electrical drawings. Conceal all transformers and coordinate access with Architect and Construction Manager.
 2. Material:
 - a. Sign Body:
 - 1) Aluminum 5052 Alloy.
 - b. Translucent Sign Back: Provide acrylic sheet, manufacturer's standard thickness for size of sign. Attach to sheet metal back channels.
 3. Finish:
 - a. Aluminum:
 - 1) Painted
 4. Refer to Drawings for:
 - a. Sign Height, Width and Depth.
 - b. Typeface and Character Spacing.
 - c. Color.
 - d. Mounting Position.
 5. Welding: Use welding method that is appropriate for metal and finish indicated and that develops full strength of members joined. Finish exposed welds and surfaces smooth, flush, and blended to match adjoining surface.
 6. Weeps: Provide weep holes to drain water at lowest part of exterior characters. Equip weeps with permanent baffles to block light leakage without inhibiting drainage.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Verify that sign-support surfaces are within tolerances to accommodate signs.
- C. Verify that anchor inserts are correctly sized and located to accommodate signs.
- D. Verify that items provided under other sections of Work are sized and located to accommodate signs.
- E. Examine supporting members to ensure that surfaces are at elevations indicated or required to comply with authorities having jurisdiction and are free from dirt and other deleterious matter.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.
- G. Field verify dimensions of all conditions.

3.2 INSTALLATION, GENERAL

- A. Preparation
 - 1. Acclimatize materials by removing them from packaging in the installation areas not less than 24 hours before installation.
 - 2. Follow manufacturer's printed instructions for surface preparation.
 - a. Prepare substrates to achieve a smooth, dry, clean surface free of flaking, unsound coatings, cracks, and defects.
 - b. Painted surfaces: Treat areas susceptible to pigment bleeding.
 - c. Metals: If not factory-primed, clean and apply rust inhibitive zinc primer.
 - d. Moisture content: maximum of 5 percent on new plaster, concrete, and concrete masonry units when tested with an electronic moisture meter.
 - e. Adhesion Test: Perform manufacturer's standard non-destructive adhesion test on substrate, prime or repaint all surfaces that fail adhesion test as recommended by manufacturer.
- B. Locate signs and accessories where indicated, using mounting methods of types described and complying with manufacturer's written instructions.
 - 1. Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion and other defects in appearance.
 - 2. Interior Wall Signs: Install signs on walls adjacent to latch side of door where applicable. Where not indicated or possible, such as double doors, install signs on nearest adjacent walls. Locate to allow approach within 3 inches of sign without encountering protruding objects or standing within swing of door.
- C. Face Mounting: Mount plaques using exposed fasteners with rosettes attached through face of plaque into wall surface.
- D. Wall-Mounted Signs Mounted on Glass: Provide opaque sheet matching sign material and finish onto opposite side of glass to conceal back of sign.
- E. Wall-Mounted Signs on Smooth Surfaces: Comply with sign manufacturer's written instructions except where more stringent requirements apply.
 - 1. Silicone-Adhesive Mounting: Attach signs to irregular, porous, or vinyl-covered surfaces. Where signage is located on exterior surfaces, provide exterior rated adhesive as recommended by signage manufacturer for substrate indicated.
- F. Wall-Mounted Signs on Textured Surfaces: Comply with sign manufacturer's written instructions except where more stringent requirements apply. Mount characters using standard fastening methods to comply with manufacturer's written instructions for character form, type of mounting, wall construction, and condition of exposure indicated. Provide heavy paper template to establish character spacing and to locate holes for fasteners.
 - 1. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
 - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface, embedding studs in holes. Temporarily support sign in position until adhesive fully sets.
 - b. Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.
- G. Vertical Tolerance: Set posts plumb within a tolerance of 1/16 inch in 3 feet (2 mm in 1m).
- H. Installation - Fabricated Signage:
 - 1. Dimensional Characters: Mount characters using standard fastening methods to comply with manufacturer's written instructions for character form, type of mounting, wall construction, and condition of exposure indicated. Provide heavy paper template to establish character spacing and to locate holes for fasteners.
 - a. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
 - 1) Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface, embedding studs in holes. Temporarily support sign in position until adhesive fully sets.
 - 2) Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.

- b. Projecting Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
 - 1) Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place spacers on studs, place sign in position, and push until spacers are pinched between sign and substrate, embedding the stud ends in holes. Temporarily support sign in position until adhesive fully sets.
 - 2) Thin or Hollow Surfaces: Place spacers on studs, place sign in position with spacers pinched between sign and substrate, and install washers and nuts on stud ends projecting through opposite side of surface, and tighten.
- c. Back Bar and Brackets: Remove loose debris from substrate surface and install backbar or bracket supports in position so that signage is correctly located and aligned.

3.3 CLEANING AND PROTECTION

- A. After installation, clean soiled sign surfaces according to manufacturer's written instructions. Protect signs from damage until acceptance by Owner.
- B. Remove and replace damaged or deformed signs and signs that do not comply with specified requirements. Replace signs with damaged or deteriorated finishes to components that cannot be successfully repaired by finish touchup or similar minor repair procedures.
- C. Remove temporary protective coverings and strippable films as signs are installed.
- D. On completion of installation, clean exposed surfaces of signs according to manufacturer's written instructions, and touch up minor nicks and abrasions in finish. Maintain signs in a clean conditions during construction and protect from damage until acceptance by Owner.

END OF SECTION 101400

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