**ADDENDUM NO. 2**

Issued: January 03, 2024  
Project: Heritage Middle School Renovations  
Project No. 23024  
Owner: Liberty Public Schools  
8 Victory Lane  
Liberty, Missouri 64068

Bidding Documents Issued: 12.13.2023

This Addendum includes these 9 page[s] and the following attachments:

- **Project Manual:**
  - Reissued Section 000105 “Certifications Page” consisting of 2 pages.
  - Reissued Section 000110 “Table of Contents” consisting of 4 pages.
  - Reissued Section 064023 “Interior Architectural Woodwork” consisting of 10 pages.
  - Reissued Section 087100 “Door Hardware” consisting of 20 pages.
  - New Section 101400 “Signage” consisting of 12 pages.

- **Drawings:**
  - New Architectural Sheets: G001, A663
  - Refer to Smith & Boucher, MEP Addendum No. 2

**PROJECT MANUAL REVISIONS**

**A1 SECTION 000005 – CERTIFICATIONS PAGE**

A1.1 REPLACE existing Section 000005 “Certifications Page” with the attached revised Section 000005 “Certifications Page”, dated January 03, 2024.

**A2 SECTION 000110 - TABLE OF CONTENTS**

A2.1 REPLACE existing Section 000110 “Table of Contents” with the attached revised Section 000110 “Table of Contents”, dated January 03, 2024.

**A3 SECTION 064023 – INTERIOR ARCHITECTURAL WOODWORK**

A3.1 REPLACE existing Section 064023 “Interior Architectural Woodwork” with the attached revised Section 064023 “Interior Architectural Woodwork”, dated January 03, 2024.

**A4 SECTION 087100 – DOOR HARDWARE**

A4.1 REPLACE existing Section 087100 “Door Hardware” with the attached revised Section 087100 “Door Hardware”, dated January 03, 2024.
A5   SECTION 096513 – RESILIENT BASE AND ACCESSORIES
   A5.1  DELETE Sub-paragraph 1.1.A.2 in Section 096513 “Resilient Base and Accessories.”
   A5.2  DELETE Article 2.3 “Resilient Stair Tread” and subsequent subparagraphs in Section 096513
         “Resilient Base and Accessories.”
A6   SECTION 098436 – ACOUSTICAL CEILING UNITS
   A6.1  REVISE Sub-paragraph 2.3.A.1 in Section 098436 “Acoustical Ceiling Units” as follows:
         1. Mounting: Face mounted with manufacturer’s standard corrosion-resistant mechanical
            fasteners and with manufacturer’s C-20 C-40 mounting system.
A7   SECTION 101100 – VISUAL DISPLAY UNITS
   A7.1  REVISE Sub-paragraph 2.3.A.1 in Section 101100 “Visual Display Units” as follows:
         1. Basis of Design: Subject to compliance with requirements, provide Claridge, Inc; “Series 4”
            “Series 1” markerboards or markerboards from one of the following manufacturers meeting
            the specified product characteristics:
   A7.2  REVISE Sub-paragraph 2.3.A.5 in Section 101100 “Visual Display Units” as follows:
         5. Frames: Fabricated from not less than 0.062 inch thick, extruded aluminum; 5/8 inch 1-1/2
            inch flat style trim with mitered corners; factory applied.
A8   SECTION 101400 – SIGNAGE
   A8.1  INSERT new Section 101400 “Signage” with the attached revised Section 101400 “Signage” dated
         January 03, 2024.

M1   REFERENCE ATTACHED MEP ADDENDUM NO. 2
E1   REFERENCE ATTACHED MEP ADDENDUM NO. 2
P1   REFERENCE ATTACHED MEP ADDENDUM NO. 2

DRAWINGS REVISIONS
A9   SHEET G000 – COVER SHEET
   A9.1  ADD sheet G001 – PHASING PLANS to drawing list on sheet G000.
   A9.2  ADD Sheet A663 – INTERIOR ELEVATION + DETAILS – THEATER ENTRY to drawing list on sheet
         G000.
A10  SHEET G001 – PHASING PLANS
   A10.1 ADD new sheet G001 – PHASING PLANS, dated 01/03/2024.
A11  SHEET G101A – CODE FLOOR PLAN – BUILDING 1 – LEVEL 1
   A11.1 REVISE Bldg 1 occupant load table on new sheet G101A.
A12 SHEET G102 – CODE FLOOR PLAN OVERALL LEVEL 2
   A12.1 REVISE rated shaft location in building 1 on new sheet G102.

A13 SHEET G102A – CODE FLOOR PLAN – BUILDING 1 – LEVEL 2
   A13.1 REVISE rated shaft location in building 1 on new sheet G102A.

A14 SHEET G103 – CODE FLOOR PLAN OVERALL LEVEL 3
   A14.1 REVISE rated shaft location in building 1 on new sheet G103.

A15 SHEET G103B – CODE FLOOR PLAN – BUILDING 1 – LEVEL 3
   A15.1 REVISE rated shaft location in building 1 on new sheet G103B.

A16 SHEET A001 – GENERAL ARCHITECTURAL INFORMATION
   A16.1 REVISE C-H stud size on wall type 14B on new sheet A001.

A17 SHEET A100A – FLOOR PLAN – LEVEL 0 – AREA A (NO NEW SHEET)
   A17.1 REMOVE Media Center RR A001 from scope.

A18 SHEET A100C – FLOOR PLAN – LEVEL 0 – AREA C
   A18.1 ADD new plan detail callouts N7/A542, and N11/A542 to Scramble C001 on new sheet A100C.

A19 SHEET A101A – FLOOR PLAN – LEVEL 1 – AREA A (NO NEW SHEET)
   A19.1 REMOVE “SIM” text from SPED A409 room.
   A19.2 REMOVE graphic/signage elevation tags from area plans; REFER to revised A700 sheet series for graphic elevation tags.

A20 SHEET A101B – FLOOR PLAN – LEVEL 1 – AREA B (NO NEW SHEET)
   A20.1 REMOVE graphic/signage elevation tags from area plans; REFER to revised A700 sheet series for graphic elevation tags.

A21 SHEET A102A – FLOOR PLAN – LEVEL 2 – AREA A (NO NEW SHEET)
   A21.1 REMOVE “SIM” text from SPED A509 and SPED A510 rooms.

A22 SHEET A102B – FLOOR PLAN – LEVEL 2 – AREA B
   A22.1 REVISE rated plumbing shaft location and reference details in view A1 on new sheet A102B.

A23 SHEET A103B – FLOOR PLAN – LEVEL 3 – AREA B
   A23.1 REVISE rated plumbing shaft location and reference details in view A1 on new sheet A103B.

A24 SHEET A120 – REFLECTED CEILING PLAN – LEVEL 0 – AREA A (NO NEW SHEET)
   A24.1 REMOVE Media Center RR A001 from scope.

A25 SHEET A126 – CEILING DETAILS (NO NEW SHEET)
   A25.1 ADD new sheet note #12, typical to all ceiling detail sheets: “PROVIDE WGX FINISH ON ALL P2 AND
P5 SOFFITS, UNO”.

A25.2 REVISE graphic/signage keynote and note in view A5 to “RE: A700 SERIES FOR GRAPHIC”.

A26 SHEET A411 – VERTICAL CIRCULATION – AREA A
A26.1 REVISE paint designations in views A5, A8, A12, F8, and H12.

A27 SHEET A412 – VERTICAL CIRCULATION – AREA A
A27.1 REVISE paint designations in views F9, J1, and N1 on new sheet A412.

A28 SHEET A413 – VERTICAL CIRCULATION – AREA B
A28.1 REVISE paint designations in views A1, A7, A13, E13, and N13 on new sheet A413.

A29 SHEET A414 – VERTICAL CIRCULATION – AREA B
A29.1 REVISE paint designations in views A1, A6, A11, E11, J11, and N11 on new sheet A414.

A30 SHEET A501 – DOOR SCHEDULE (NO NEW SHEET)
A30.1 REMOVE Media Center RR A001 door, hardware, and finish upgrade from scope.

A31 SHEET A503 – FRAME TYPES
A31.1 ADD new frame type 27 on new sheet A503.

A32 SHEET A542 – ARCHITECTURAL PLAN DETAILS – INTERIOR
A32.1 REVISE paint designations in view A1 and A4 on new sheet A542.
A32.2 REVISE Area B plumbing shaft details per G4 and N1 on new sheet A542.
A32.3 ADD new views N7 and N11.

A33 SHEET A600A – FINISH FLOOR PLAN – LEVEL 0 – AREA A (NO NEW SHEET)
A33.1 REMOVE Media Center RR A001 from scope.

A34 SHEET A601A – FINISH FLOOR PLAN – LEVEL 1 – AREA A
A34.1 REVISE paint designations in view A1 on new sheet A601A.
A34.2 ADD new interior elevations markers N10/A623.

A35 SHEET A602A – FINISH FLOOR PLAN – LEVEL 2 – AREA A
A35.1 REVISE paint designations and ADD gyp finish extents note in view A1 on new sheet A602A.

A36 SHEET A602B – FINISH FLOOR PLAN – LEVEL 2 – AREA B
A36.1 REVISE paint designations and ADD gyp finish extents note in view A1 on new sheet A602B.
A36.2 ADD new enlarged plan callout on new sheet A602B.

A37 SHEET A603B – FINISH FLOOR PLAN – LEVEL 3 – AREA B
A37.1 REVISE paint designations in view A1 on new sheet A603B.
A38 SHEET A621 – INTERIOR ELEVATIONS – LEVEL 1 – AREA A + TYP ELEVATIONS
A38.1 REVISE paint designations in views A6 and E6 on new sheet A621.

A39 SHEET A622 – INTERIOR ELEVATIONS – LEVEL 1 – COMMONS
A39.1 REVISE paint designations in views A5 and E6 on new sheet A622.
A39.2 REVISE window film keynote in F5.
A39.3 DELETE enlarged view callout (M11/A702).

A40 SHEET A623 – INTERIOR ELEVATIONS – LEVEL 1 – AREA B
A40.1 REVISE paint designations in views A1 and J13 on new sheet A623.
A40.2 REVISE display rail keynote to 064023.A29 (Type 2) in views A1 and E1.
A40.3 ADD note to clarify tiling extents in view E1.
A40.4 REMOVE tile and trim installation instructions; REFER to sheet A681 for finish notes.
A40.5 DELETE soffit finish note in views J5 and J13.
A40.6 DELETE graphic/signage keynote + finish from view J9.
A40.7 REVISE wood trim type in view J13.
A40.8 ADD new views J1, N10 and N14.

A41 SHEET A625 – INTERIOR ELEVATIONS – LEVEL 2 – AREA A
A41.1 REVISE paint designations in views E6, J6 and N9 on new sheet A625.
A41.2 REVISE window film keynotes in view J6.
A41.3 DELETE graphic/signage keynote + finish from view J6; ADD new enlarged view callouts (A11/A702A and E11/A702A).

A42 SHEET A626 – INTERIOR ELEVATIONS – LEVEL 2 – AREA B
A42.1 REVISE wrapped panel locations and dimensions in view E12 on new sheet A626.

A43 SHEET A627 – INTERIOR ELEVATIONS – LEVELS 2 + 3 – AREA B
A43.1 REVISE paint designations in views A1, E1, J1 and N1 on new sheet A627.
A43.2 ADD new enlarged view callout in view A1 (new view A8/A663).
A43.3 DELETE duplicate paint designations in view E1.
A43.4 DELETE interior detail keynote + material designation on arch in view J1.

A44 SHEET A628 – INTERIOR ELEVATIONS – LEVEL 3 – AREA B (NO NEW SHEET)
A44.1 ADD new keynote 061000.A19 to view E12.

A45 SHEET A629 – INTERIOR ELEVATIONS – LEVEL 0 – AREA C
A45.1 REVISE tile extents in views A6 and J6 on new sheet A629.
A45.2 ADD existing door tags to view J6.
A45.3 ADD clarifying paint extent notes to view A6.

A46 SHEET A630 – INTERIOR ELEVATIONS – LEVEL 0 – AREA C
A46.1 ADD tile extents in views E11 and N9 on new sheet A630.
A46.2 ADD keynotes 093000.A01 and 093000.A04 to view A5.
A46.3 DELETE graphic location dimensions and 101400.A31 keynote in view A5.
A46.4 ADD new enlarged view callout in views A11 (new E10/A700C); REVISE paint designation.

A47 SHEET A631 – INTERIOR ELEVATIONS – LEVEL 0 – AREA C
A47.1 REVISE paint designations in views A1 and A10 on new sheet A631.
A47.2 ADD painted graphic dimensions per view A10.

A48 SHEET A663 – INTERIOR ELEVATION + DETAILS – THEATER ENTRY
A48.1 ADD new sheet A663.

A49 SHEET A681 – ROOM FINISH SCHED. (AREAS A + C) + MAT. FINISH LEGEND
A49.1 REVISE HP1-HP7 paint colors in material finish legend on new sheet A681.
A49.2 ADD new HP8, HP9 to material finish legend.
A49.3 REVISE HP paint colors as noted in the “Room Finish Schedule - Areas A + C (Phase 1)” on new sheet A681.

A50 SHEET A682 – ROOM FINISH SCHEDULE (AREA B)
A50.1 REVISE HP paint colors as noted in the “Room Finish Schedule - Areas A + C (Phase 2)” on new sheet A682.

A51 A700A – SIGNAGE & GRAPHICS FLOOR PLAN – AREA A – LEVEL 0
A51.1 REVISE code signage sign numbers in view A1 on new sheet A700A.
A51.2 REMOVE Media Center RR A001 from scope.

A52 A700B – SIGNAGE & GRAPHICS FLOOR PLAN – AREA B – LEVEL 0
A52.1 REVISE code signage sign numbers in view A1 on new sheet A700B.

A53 A700C – SIGNAGE & GRAPHICS FLOOR PLAN – AREA C – LEVEL 0
A53.1 REVISE code signage sign numbers in view A1 on new sheet A700C.
A53.2 REVISE keynotes, dimensions, and finish notes in views A10, E10, J10 and N10.
<table>
<thead>
<tr>
<th>A54</th>
<th>A701A – SIGNAGE &amp; GRAPHICS FLOOR PLAN – AREA A – LEVEL 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A54.1</td>
<td>REVISE code signage sign numbers in view A1 on new sheet A701A.</td>
</tr>
<tr>
<td>A54.2</td>
<td>REVISE sign types, dimensions, and finish notes in views A9 and E9.</td>
</tr>
<tr>
<td>A54.3</td>
<td>ADD new views J9 and J13.</td>
</tr>
<tr>
<td>A54.4</td>
<td>ADD keynotes 101400.A31 and 101400.A43 to the Sheet Keynote Legend.</td>
</tr>
<tr>
<td>A54.5</td>
<td>ADD new graphics sheet notes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A55</th>
<th>A701B – SIGNAGE &amp; GRAPHICS FLOOR PLAN – AREA B – LEVEL 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A55.1</td>
<td>REVISE code signage sign numbers in view A1 and keynotes in sheet keynote legend on new sheet A701B.</td>
</tr>
<tr>
<td>A55.2</td>
<td>REMOVE views A12 and F12.</td>
</tr>
<tr>
<td>A55.3</td>
<td>ADD sheet notes and new views A11, F11, F14, G11, K11 and N11.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A56</th>
<th>A702A – SIGNAGE &amp; GRAPHICS FLOOR PLAN – AREA A – LEVEL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A56.1</td>
<td>REVISE code signage sign numbers in view A1 and keynotes in sheet keynote legend on new sheet A702A. REVISE graphic information in view A11.</td>
</tr>
<tr>
<td>A56.2</td>
<td>REMOVE views F11, G14 and M11.</td>
</tr>
<tr>
<td>A56.3</td>
<td>ADD new view E11.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A57</th>
<th>A702B – SIGNAGE &amp; GRAPHICS FLOOR PLAN – AREA B – LEVEL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A57.1</td>
<td>REVISE code signage sign numbers in view A1 and keynotes in sheet keynote legend on new sheet A702B.</td>
</tr>
<tr>
<td>A57.2</td>
<td>ADD new view A12 and sheet notes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A58</th>
<th>A702C – SIGNAGE &amp; GRAPHICS FLOOR PLAN – AREA C – LEVEL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A58.1</td>
<td>REVISE code signage sign numbers in view A1 on new sheet A702C.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A59</th>
<th>A703B – SIGNAGE &amp; GRAPHICS FLOOR PLAN – AREA B – LEVEL 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A59.1</td>
<td>REVISE code signage sign numbers in view A1 on new sheet A703B.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A60</th>
<th>A711 – SIGNAGE &amp; GRAPHICS SCHEDULE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A60.1</td>
<td>REVISE ADA &amp; Code Signage Schedules for Areas A, B + C per new sheet A711.</td>
</tr>
<tr>
<td>A60.2</td>
<td>ADD new graphics schedule; REMOVE Media Center RR A001 from scope.</td>
</tr>
<tr>
<td>A60.3</td>
<td>REMOVE typical signage mounting details A1, A5, A10 and A15.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A61</th>
<th>A715 – ADA &amp; CODE SIGNAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A61.1</td>
<td>ADD sheet notes and typical signage mounting details K4, K8, N4 and N8.</td>
</tr>
<tr>
<td>A61.2</td>
<td>REVISE keynotes in sheet keynote legend.</td>
</tr>
</tbody>
</table>
A61.3 REVISE code signage graphics and layouts in views G1 and A12.

A62 SHEET A800 – ALTERNATE #2 – PLAN & RCP – LEVEL 0 – AREA B
A62.1 ADD plan notes and wall details in view A1 on new sheet A800.

A63 SHEET A801 - ALTERNATE #2 – PLANS & RCP – LEVEL 1 – AREA B
A63.1 ADD ceiling demolition notes to new sheet A801.
A63.2 ADD wood cornice to top of columns and REMOVE graphic keynote/notes in view P9.
A63.3 ADD elevation tags and signage plan notes to view A9.
A63.4 REVISE sheet keynote legend.

A64 SHEET A802 - ALTERNATE #2 – PLAN & RCP – LEVEL 1 – AREA B
A64.1 ADD finish notes to view A1 on new sheet A802.
A64.2 ADD equipment scope (NIC) notes and signage plan notes to view A9.

A65 SHEET A803 – ALTERNATE #2 – ELEVATIONS & DETAILS
A65.1 REVISE paint designation in view A1 on new sheet A803.
A65.2 REVISE display rail keynote 064023.A29 (Type 1) and REMOVE graphic keynote and finish reference in view A12.
A65.3 REVISE paint designations, ADD door tag, and REMOVE graphic/signage keynote and notes in view J12.
A65.4 REMOVE graphic/signage keynote and notes in view N6.
A65.5 ADD door tag in view N12.

A66 SHEET A804 - ALTERNATE #2 – ELEVATIONS & DETAILS
A66.1 REVISE casework layout in views J3 and J8 on new sheet A804.
A66.2 ADD door tags to views J8 and N12.
A66.3 ADD 079200.A01 to view A1.
A66.4 REVISE dimensions as noted in view A5.
A66.5 REVISE paint designations in view A9.
A66.6 ADD keynotes and material designations as noted in views E1, E5, J1, J3, J8, N1, N6 and N12.

A67 SHEET A805 - ALTERNATE #3 – A513 STORAGE + A514 COLLABORATION (NO NEW SHEET)
A67.1 ADD 061000.A19 plywood backing to view A17 on sheet A805.

A68 SHEET A806 – ALTERNATE #3 – A413 FLEX
A68.1 ADD new 055213.A03 to view A8 on new sheet A806.
A68.2 REVISE paint designation in view M10.
A68.3  ADD detail reference M10/A806 to view J6.

A69  SHEET A807 - ALTERNATE #3 – A413 FLEX

   A69.1  REVISE paint designations in views A1, J1 and N1 on new sheet A807.

A70  SHEET A809 - ALTERNATE #5 – ENLARGED TOILET PLANS & DETAILS

   A70.1  REMOVE Media Center RR A001 from scope; DELETE views A14 and D14 from sheet A809.

A71  SHEET A810 - ALTERNATE #5 – RESTROOM ELEVATIONS

   A71.1  REMOVE Media Center RR A001 from scope; DELETE view A5 from sheet A810.

M2  REFERENCE ATTACHED MEP ADDENDUM NO. 2

E1  REFERENCE ATTACHED MEP ADDENDUM NO. 2

P1  REFERENCE ATTACHED MEP ADDENDUM NO. 2

END OF ADDENDUM NO. 02
ADDENDUM NO. 2

Heritage Middle School Renovation
Smith & Boucher Project No. 2314708

01-03-2024

To Documents Titled: Heritage Middle School Renovation
100% Construction Documents
December 20th 2023

Architect-of-Record: Hollis + Miller Architects
1828 Walnut Street Suite 922
Kansas City, MO 64108

The Contract Documents for the above referenced project and the Work covered thereby are modified as described herein.

DRAWINGS

1. Sheet DE200A – Demolition Power Plan - Level 0 – Area A
   a. Clarified demolition scope.

2. Sheet DE200B – Demolition Power Plan - Level 0 – Area B
   a. Clarified demolition scope.

3. Sheet DE200C – Demolition Power Plan - Level 0 – Area C
   a. Clarified demolition scope.

4. Sheet DE201A – Demolition Power Plan - Level 1 – Area A
   a. Clarified demolition scope.

5. Sheet DE201B – Demolition Power Plan - Level 1 – Area B
   a. Clarified demolition scope.

6. Sheet DE201C – Demolition Power Plan - Level 1 – Area C
   a. Clarified demolition scope.

7. Sheet DE202A – Demolition Power Plan - Level 2 – Area A
   a. Clarified demolition scope.

8. Sheet DE202B – Demolition Power Plan - Level 2 – Area B
   a. Clarified demolition scope.

9. Sheet DE202C – Demolition Power Plan - Level 2 – Area C
   a. Clarified demolition scope.

10. Sheet DE203B – Demolition Power Plan - Level 3 – Area B
    a. Clarified demolition scope.

11. Sheet E100B – Lighting Plan - Level 0 – Area B
    a. Added additional lighting replacement scope.
12. Sheet E100C – Lighting Plan – Level 0 – Area C  
   a. Additional lighting replacement scope.

13. Sheet E102B – Lighting Plan - Level 2 – Area B  
   a. Added additional lighting scope.

14. Sheet E103B – Lighting Plan - Level 3 – Area B  
   a. Added additional lighting scope.

15. Sheet E201B – Power Plan - Level 1 – Area B  
   a. Added additional lighting scope.

16. Sheet E302 – Electrical Schedules and Details  
   a. Revised light fixture schedules to correspond to lighting scope.

17. Sheet LV100A – Low Voltage Plan - Level 0 – Area A  
   a. Added additional fire alarm devices.

18. Sheet LV100B – Low Voltage Plan - Level 0 – Area B  
   a. Added additional fire alarm devices.

19. Sheet LV100C – Low Voltage Plan - Level 0 – Area C  
   a. Added additional fire alarm devices.

20. Sheet LV102B – Low Voltage Plan - Level 2 – Area B  
   a. Added additional fire alarm devices.

21. Sheet LV102C – Low Voltage Plan - Level 2 – Area C  
   a. Added additional fire alarm devices.

22. Sheet LV103B – Low Voltage Plan - Level 3 – Area B  
   a. Added additional fire alarm devices.

**Attachments**

- DE200A
- DE200B
- DE200C
- DE201A
- DE201B
- DE201C
- DE202A
- DE202B
- DE202C
- DE203B
- E100B
- E100C
• E102B
• E103B
• E201B
• E302
• LV100A
• LV100B
• LV100C
• LV102B
• LV102C
• LV103B

END OF MEP ITEMS FOR ADDENDUM NO. 2
ARCHITECT

I HEREBY, PURSUANT TO RSMO 327.411, STATE THAT THE SPECIFICATIONS INTENDED TO BE AUTHENTICATED BY MY SEAL ARE LIMITED TO SPECIFICATIONS LISTED BELOW:

DIVISION 1 SECTIONS: 011000, 012100, 012200, 012300, 012500, 013100, 013200, 013233, 013300, 014000, 014200, 014529, 016000, 017310, 017419, 017700, 017823, 017839, 017900.

DIVISION 2 SECTION: 024119.

DIVISION 4 SECTIONS: 040100, 040140, 042000, 047200.

DIVISION 5 SECTIONS: 055000, 055213.

DIVISION 6 SECTIONS: 061000, 061600, 062023, 064023, 066400.

DIVISION 7 SECTIONS: 072100, 072500, 072726, 074646, 075113, 076200, 078413, 078446, 079200, 079500.

DIVISION 8 SECTIONS: 081113, 081416, 081433, 083113, 083326, 084113, 084123, 085123, 087100, 088000.

DIVISION 9 SECTIONS: 092116, 092117, 092900, 093000, 095113, 096513, 096519, 096723, 096813, 097700, 097723, 098433, 098436, 099113, 099123, 099300, 099600.

DIVISION 10 SECTIONS: 101100, 101400, 101423, 102113, 102238, 102600, 102800, 104413, 104416, 105113.

DIVISION 12 SECTIONS: 122113, 122413, 123200, 123666.

DIVISION 14 SECTIONS: 144200.

I HEREBY DISCLAIM ANY RESPONSIBILITY FOR ALL OTHER SPECIFICATIONS, DRAWINGS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE ARCHITECTURAL OR ENGINEERING PROJECT OR SURVEY.

KEVIN NELSON JANUARY 03, 2024

ARCHITECT DATE
INTRODUCTORY INFORMATION

000101 Project Team Directory 12.07.2023
000105 Certifications and Seals 01.03.2024 01.03.2024 12.07.2023
000110 Table of Contents 01.03.2024 01.03.2024 12.07.2023

BIDDING REQUIREMENTS
(Refer to Construction Manager’s Front End Manual for additional Bidding Requirements)

CONTRACTING REQUIREMENTS
(Refer to Construction Manager’s Front End Manual for additional Contracting Requirements)

DIVISION 1 – GENERAL REQUIREMENTS
011000 Summary 12.07.2023
012100 Allowances 12.07.2023
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**Liberty Public Schools**  
**Heritage MS Renovation**  
**Project No. 23024**  
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SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes the following:
   2. Interior veneered plywood (064023.A07 – WD5).
   3. Ornamental Woodwork (064023.A13 - WT-1)
   7. Hanging Display System (064023.29).
      a. Art Display Rail (064023.A279 – Type 1).
      b. Art Display Rail (064023.A29 – Type 2).
      c. Lettering Display Rail System (064023.A29 – Type 3)

B. Related Sections include the following:
   1. Section 055000 "Metal Fabrications" for decorative metal finished components.
   2. Section 061000 "Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing woodwork and concealed within other construction before woodwork installation.
   3. Section 062023 "Interior Finish Carpentry" for premanufactured wood trim and shelving.
   4. Section 088000 "Glazing" for glass for display case doors and shelves.
   5. Section 092900 "Gypsum Board" for decorative metal reveals.
   6. Section 101400 "Signage" for fabricated signage items.
   7. Section 123200 "Manufactured Wood Casework" for premanufactured casework.
   8. Section 123666 "Solid Surfacing Countertops" for solid surfacing countertops.

1.2 DEFINITIONS

A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items unless concealed within other construction before woodwork installation.

B. Balanced Construction: Where exposed face of a panel is surfaced with high pressure plastic laminate and the opposite (back) surface shall receive a cabinet liner or backer sheet when that surface is not exposed to view.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated, including hardware, accessories and solid-surfacing material.

B. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
   1. Show details full size.
   2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
   3. Show locations and sizes of cutouts and holes for items installed in architectural woodwork.

C. Samples for Initial Selection: For each type of product involving selection of colors, profiles, or textures.

D. Samples for Verification:
   1. For each species and cut of lumber and wood trim with non-factory-applied finish, with 1/2 of exposed surface finished, 50 sq. in. for lumber and 10-inch-long for trim.
   2. Veneer-faced panel products with transparent finish, with 1/2 of exposed surface finished, 8 by 10 inches for each species and cut of veneered panel. Include at least one face-veneer seam and finish as specified.
   3. Exposed cabinet hardware and accessories, one unit for each type.
4. Solid-surfacing materials, 6 inches square.
5. Display case door rail finish, 4 inches long.
6. Display case brackets and standards, not less than 4 inches long.

1.4 INFORMATIONAL SUBMITTALs

A. Product Certificates: For each type of product, signed by product manufacturer.

B. Qualification Data: For Installer.

1.5 QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate products similar to those required for this Project and whose products have a record of successful in-service performance of not less than seven years under the current company name.

B. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

C. Source Limitations: Engage a qualified woodworking firm to assume undivided responsibility for production of interior architectural woodwork with sequence-matched wood veneers and plastic laminate finishes.

D. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork indicated for construction finishes, installation, and other requirements.

   1. Comply with "Premium" grading requirements, unless specifically specified otherwise.

E. Fire-Test-Response Characteristics: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.

F. Preinstallation Conference: Conduct conference at Project site.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

B. Stack lumber, trim, plywood, and other panels flat with spacers between each bundle to provide air circulation. Protect materials from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

1.7 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

B. Do not install interior architectural woodwork materials that are wet, moisture damaged, or mold damaged.

   1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

   2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

C. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings.
Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed, and indicate measurements on Shop Drawings.

2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.8 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

1.9 WARRANTY

A. Special Warranty for Hardware: Manufacturer's standard from in which manufacturer agrees to repair or replace components that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
   a. Failure of operating hardware.
   b. Deterioration of finishes.

2. Warranty period: Three years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 MATERIALS

A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.

B. Wood Species and Cut for Transparent Finish: Red Oak, plain sliced/plain sawn. Refer to Material Finish Legend and Drawings for addition information and locations.

C. Wood Products: Comply with the following:
      a. Where Fire Retardant MDF or FRT MDF is indicated, MDF must meet class A requirements per ASTM E 84.

D. Tempered Float Glass for Display Case Doors and Shelves: Refer to Section 088000 for requirements.

E. Curved Wood Products: Subject to compliance with requirements, provide “Kerfcore” by Kerfore or a comparable product by another manufacturer meeting the requirements for wood products as specified by the work of this section.

2.2 FIRE-RETARDANT-TREATED MATERIALS

A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this Article, acceptable to authorities having jurisdiction, and with fire-test-response characteristics specified.

1. Do not use treated materials that do not comply with requirements of referenced woodworking standard or that are warped, discolored, or otherwise defective.

2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.

3. Identify fire-retardant-treated materials with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.
2.3 INTERIOR WOOD TRIM – TRANSPARENT (064023.A01)

A. Hardwood Lumber Trim for Transparent Finish (064023.A01-WD4): Comply with AWI, Section 300, Grade "Custom",
   1. Species and Grade: Red Oak, Rift Sawn – Stained to match Architect Sample as indicated on Material Finish Legend.
   2. Maximum Moisture Content: 13 percent.
   4. Gluing for Width: Use for lumber trim wider than 6 inches.
   5. Veneered Material: Not allowed.
   6. Face Surface: Surfaced (smooth).
   7. Matching: Selected for compatible grain and color.
   8. Profiles: Refer to Drawings for configurations and profiles required.

B. Hardwood Moldings for Transparent Finish (064023.A13 - WT-1): WMMPA HWM 2, N-grade wood moldings made to patterns included in WMMPA HWM 1.
   1. Species and Grade: Rift Sawn Red Oak – Stained to match Architect Sample as indicated on Material Finish Legend.
   2. Maximum Moisture Content: 9 percent.
   4. Matching: Selected for compatible grain and color.
   5. Profiles: Refer to Drawings for configurations and profiles required.

2.4 INTERIOR VENEERED PLYWOOD (064023.A07)

A. Hardwood Veneer Plywood (064023.A07 – Type WD5): Manufacturer's stock hardwood plywood panels complying with HPVA HP-1, made without urea-formaldehyde adhesive.
   1. AWI Grade: Premium.
   2. Face Veneer Species and Cut:
      a. Provide Rift Sawn Red Oak where indicated on Material Finish Legend, stain to match color indicated.
   4. Veneer Matching within Panel Face: Center-balance match.
   6. Thickness: 0.75 inch, unless otherwise indicated.
   7. Panel Size: 48 by 96 inches or greater.
   8. Glue Bond: Type II (interior).
   10. Joints: Provide biscuit joinery at all flush panel joints.
   11. Provide veneer edgebanding where plywood edges are indicated to be exposed.
      a. Refer to Section 099300 "Staining and Transparent Finishing" for fire-retardant, vertical non-traffic finishing system.

B. Custom Stainless Steel Corner Trim: Provide custom fabricated corner trim fabricated from 18 gauge, Type 304 stainless steel sheets. Trim shall be formed from a single sheet to profiles indicated on Drawings.

C. Z-Clips for Mechanically Fastened Interior Veneered Plywood: Subject to compliance with requirements, provide “MF375 Clip” by Monarch or comparable product with the following product characteristics, submitted to and accepted by Architect prior to bidding:
   2. Projection from Substrate: 1/4 inch.
   3. Lift Off Distance/Engagement Length: 3/8 inch.
   4. Length of Clip: 2 inch minimum to 72 inches maximum.
      a. Provide clips in lengths as required to meet performance requirements.
   5. Installation: Mechanically fastened using manufacturer's recommended fasteners.
2.5 METAL EDGE TRIM (064023.A24)

A. Millwork Reveal Base (064023.A24): Subject to compliance with requirements, provide "4 inch Millwork Reveal Base - Model No. MWRB75400" by Fry Reglet Corporation or comparable product with the following product characteristics, submitted to and accepted by Architect prior to bidding:
   2. Finish: Clear anodized.
   4. Installed with 3/4 inch millwork panels at base of panels.
   5. Provide clips in lengths as required to meet performance requirements.
   6. Installation: Mechanically fastened using manufacturer's recommended fasteners.

B. Z-cleats for Mechanically Fastened Interior Panels: Subject to compliance with requirements, provide comparable product with the following product characteristics, submitted to and accepted by Architect prior to bidding:
   2. Depth: 1/4 inch.
   3. Length of Cleat: 2 inch minimum to 72 inches maximum.
      a. Provide cleats in lengths as required to meet performance requirements.
   4. Installation: Mechanically fastened using manufacturer's recommended fasteners.

2.6 CABINET HARDWARE AND ACCESSORIES

A. Concealed Countertop Bracket (064023.A32) – Basis-of-Design Product: Subject to compliance with requirements, provide the "Concealed Flat Bracket - C-Flat 2.0" by A&M Hardware, Inc., steel thickness and dimensions shall be sized to support carrying capacity. Comparable products will be considered when submitted to and accepted by Architect prior to bidding.
   1. Carrying capacity shall not be less than 1000 lbs, accommodating a counter depth of at least 25 inches.
   2. Coordinate solid wood blocking requirements for a concealed bracket installation prior to installation of drywall.
   3. Include upper extension as required.
   4. Color: As selected from manufacturers full range.
   5. Sizes: As determined by countertop size.

B. Exposed Countertop Bracket (064023.A33) – Basis-of-Design Product: Subject to compliance with requirements, provide A&M Hardware, Inc.; "Hybrid Bracket, HYB-1.5" without upper extension. Length of support arm varies, refer to Drawings. Color to be selected by Architect from manufacturer's full range of colors. Final color as indicated on drawings. Carrying capacity shall not be less than 450 lbs, accommodating a counter depth of at least 25 inches. Comparable products will be considered when submitted to and accepted by Architect prior to bidding.
   1. Coordinate solid wood blocking requirements for a concealed bracket installation prior to Installation of drywall.
   2. Color: As selected from manufacturers full range.
   4. Spacing: 24" on center.

2.7 SWINGING DISPLAY CASE DOOR SYSTEM (064023.A25)

A. Display Case Doors - Basis-of-Design Product: Subject to compliance with requirements, provide Blumcraft of Pittsburgh / C.R. Laurence Co, Inc.; "Series 1301-SM" Display Case Door System or comparable product from other manufacturers submitted to and accepted by Architect prior to bidding.
   1. System Description: System shall include, but not be limited to: manual-swinging display case doors with top and bottom rails; Rail types shall be square type with top and bottom trim. Furnish as complete units with: locks, strike plate and other accessories necessary for complete and fully-functional installation.
      a. Refer to Section 088000 for glass requirements; glass to be provided by display case door hardware installer.
      b. Exposed aluminum surfaces shall have a clear satin anodized finish.

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2.8 DISPLAY CASE SHELVING SYSTEM (064023.A27)

A. Display Case Shelf Standards and Brackets: Subject to compliance with requirements, provide the following display case shelving, including all accessories and fasteners, or comparable products from other manufacturers, submitted to and accepted by Architect prior to bidding.
   1. Display Case Shelving:
      b. Standards/Track: Architect will select from any of the two track (standard) styles. Tracks shall be single slotted type, fabricated from aluminum. Factory finish in satin finish.
      c. Brackets: Brackets shall be rectangular shape, ¾ inch wide and 1-1/4 inch high, similar to EZ Shelf Support Bracket. Bracket lengths shall be 11-11/16 inch, unless another length is indicated on Drawings. Brackets shall be fabricated from aluminum and shall be clear satin finished to match standards/tracks. Provide bracket lengths to suit shelving depths indicated.
      d. Accessories include, but are not limited to: Manufacturer’s standard hold-down brackets, clear rubber bumper supports for glass shelves and fasteners to suit supporting substrate. Fasteners shall be finished to match standards/tracks.
      e. Glass Shelves: Refer to Section 088000 for requirements.

2.9 HANGING DISPLAY SYSTEM (064023.A29)

A. Art Rail Display System (064023 A29 – Type 1)
   1. Basis-of-Design: Subject to compliance with requirements, provide “Casso Magnetic Display Rail” by AS Hanging Display Systems, including all accessories and fasteners. Comparable products by another manufacturer meeting listed product characteristics will be considered if submitted to and accepted by Architect prior to bidding.
      a. Function: Display rail to display papers using a double rubber clampin mechanism in the rail and a magnetic area at the front of the rail.
      b. System Includes: Two endcaps, four mouse-shaped magnets, Click & Connect connectors, #6 by 1.25 inch screws and TripleGrip anchors
         1) 20 extra end caps (pair) in gray finish.
      c. Material: Extruded aluminum track with extruded co-polymer gripper insert.
      d. Finish: Clear anodized aluminum
      e. Size: Manufacturer Standard width by length as indicated on Drawings.
      f. Installation: Mechanically fastened to substrate using manufacturer’s recommended fastening products.

B. Art Rail Display System (064023 A279 – Type 2)
   1. Basis-of-Design: Subject to compliance with requirements, provide “Casso Display Rail” by AS Hanging Display Systems, including all accessories and fasteners. Comparable products by another manufacturer meeting listed product characteristics will be considered if submitted to and accepted by Architect prior to bidding.
      a. Function: Display rail to display papers using a double rubber clampin mechanism in the rail and a magnetic area at the front of the rail.
      b. System Includes: Two endcaps, Click & Connect connectors, #6 by 1.25 inch screws and TripleGrip anchors
         1) 20 extra end caps (pair) in gray finish.
         2) 100 J-hangers in white finish.
      c. Material: Extruded aluminum track with extruded co-polymer gripper insert.
      d. Finish: Clear anodized aluminum, Satin.
      e. Size: 2 inch wide by 0.4 inch depth by length as indicated on Drawings.
      f. Installation: Mechanically fastened to substrate using manufacturer’s recommended fastening products.

C. Lettering Display Rail System (064023 A29 – Type 3)
   1. Basis-of-Design: Subject to compliance with requirements, provide “Gemini Acrylic Pronto Track” as manufactured by Graphic Solutions Group, including all accessories and fasteners. Comparable products by another manufacturer meeting listed product characteristics will be considered if submitted to and accepted by Architect prior to bidding.
b. **System Includes:**
   1. **Top Rail:** GEMATT-10
   2. **Mid-Rail:** GEMADT-10
   3. **Bottom Rail:** GEMATB-10

c. **Size:** 10 foot rails to be cut in field to required length. Refer to the drawings for lengths and quantities required.

d. **Installation:** Adhesively fastened to substrate using manufacturer's recommended fastening products.

### 2.10 MISCELLANEOUS MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln dried to less than 15 percent moisture content.

B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

C. Adhesives: Use adhesives that meet the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

D. Installation Adhesive: Product recommended by fabricator for each substrate for secure anchorage.
   1. Adhesives shall have a VOC content of 70 g/L or less.
   2. Adhesive shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

### 2.11 FABRICATION, GENERAL

A. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.

B. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:

C. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
   1. Notify Architect seven days in advance of the dates and times woodwork fabrication will be complete.
   2. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.

D. Shop-cut openings to maximum extent possible to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

E. Install glass to comply with applicable requirements in Division 08 Section "Glazing" and in GANA's "Glazing Manual." For glass in wood frames, secure glass with removable stops.

F. Install glass in display case doors in accordance with door manufacturer's instructions.

G. Apply marker board laminate to flush wood doors on the non-primed face, in strict accordance with laminate manufacturer's written recommendations.
PART 3 EXECUTION

3.1 EXAMINATION

A. Examine all areas and conditions where solid surfacing fabrications will be installed. Notify Architect of any conditions that would adversely affect the installation. Do not proceed with installation until unsatisfactory conditions are corrected.
   1. Commencement of installation is construed as acceptance of the adjacent surfaces and conditions.

3.2 PREPARATION

A. Before installation, condition woodwork to average prevailing humidity conditions in installation areas.

B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and back priming.

3.3 INSTALLATION

A. Grade: Install woodwork to comply with requirements for the same grade specified in Part 2 for fabrication of type of woodwork involved.

B. Assemble woodwork and complete fabrication at Project site to comply with requirements for fabrication in Part 2, to extent that it was not completed in the shop.

C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.

D. Scribe and cut woodwork to fit adjoining work, refinsh cut surfaces, and repair damaged finish at cuts.

E. Preservative-Treated Wood: Where cut or drilled in field, treat cut ends and drilled holes according to AWPA M4.

F. Fire-Retardant-Treated Wood: Handle, store, and install fire-retardant-treated wood to comply with chemical treatment manufacturer's written instructions, including those for adhesives used to install woodwork.

G. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails or finishing screws for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.

H. Display Case Doors and Shelving: Install units plumb and level in strict accordance with manufacturer's written instructions. Check doors for proper operation and adjust as necessary. Install shelf hanging systems to configurations indicated and in accordance with manufacturer's written instructions.

3.4 STANDING AND RUNNING TRIM INSTALLATION

A. Install with minimum of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary. Stagger joints in adjacent and related standing and running trim. Miter at returns, miter at outside corners, and cope at inside corners to produce tight fitting joints with full-surface contact throughout length of joint. Use scarf joints to end-to-end joints. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.
   1. Match Color and grain pattern of trim for transparent finish (stain or clear finish) across joints.
   2. Install trim after gypsum board joint finishing operations are completed.
   3. Install without splitting; drill pilot holes before fastening where necessary to prevent splitting. Fasten to prevents movement of warping. Countersink fastener heads on exposed carpentry work and fill holes.
   4. Hardwood Flush Siding Installation Requirements:
      a. Machine nail hardwood siding to plywood with 1-3/4 inch barbed cleats or equivalent fastening with end joints properly driven up and with proper spacing to suit humidity conditions at Project. Space
fasteners at 12 inch centers maximum.
b. Installation tolerances: 1/8 inch in 10 feet of variance from level.

3.5 ADJUSTING AND CLEANING

A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.

B. Clean, lubricate, and adjust hardware.

C. Clean woodwork on exposed and semi-exposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

D. Stainless Steel Protection: Provide 6-mil plastic or other suitable water-resistant covering over the countertop surfaces. Tape to underside of countertop at a minimum of 48 inches o.c. Remove protection at Substantial Completion.

END OF SECTION
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PART 1 - GENERAL

1.1 SUMMARY

   A. Intent: The intent of this Section is to provide finish hardware for the proper operation and control of all wood, hollow metal and aluminum doors in the Project. Prior to bidding, notify the Architect of any doors that do not have hardware meeting this intention.

   B. This Section includes items known commercially as finish or door hardware that are required for swinging doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed. This Section includes, but is not necessarily limited to furnishing and installing complete, the following:

       1. Finish hardware for proper operation and control of all wood, aluminum and hollow metal doors, including hinges, locks and latch sets, closers, panic devices, auto-flushbolts, electric strikes, magnetic holders, removable mullions, cylinders, keys, miscellaneous stops, flat goods, weatherstripping and thresholds as required.

       2. Cylinder for access doors where specified.

   C. Related work in other sections:

       1. Hollow metal doors, frames and silencers: Section 081113.
       2. Wood doors: Section 081416.
       3. Aluminum doors: Section 084113.

1.2 DEFINITIONS

   A. “Finish Hardware” includes items known commercially as finish hardware which are required for swing, and folding doors, except special types of unique and non-matching hardware specified in the same section as the door and door frame.

1.3 ACTION SUBMITTALS

   A. Product Data: Submit manufacturers technical product data for each hardware item. Include information necessary to show compliance with requirements and include instructions for installation and for maintenance of operating parts and finishes.

       1. Manufacturer shall submit written certification confirming closers compliance with U.L. 10C.

   B. Hardware Schedule: Submit a hardware schedule in a vertical format (horizontal format not acceptable), organized into sets, including the information below. Designations for door numbers and hardware sets in the schedule shall match those used in the Construction Documents for each opening.

       1. Hardware Schedule shall be coordinated with doors, frames, and related work to ensure proper size, thickness, hand function, and finish of door hardware.
       2. Catalog cuts of each type of exposed hardware unit, highlighted in color to indicate compliance with the Hardware Schedule.
       3. Type, style, function, size and finish of each hardware item.
       4. Name and manufacturer of each item.
       5. Fastenings and other pertinent information.
       6. Explanation of all abbreviations, symbols, codes, etc., contained in schedule.
       7. Mounting locations for hardware.
       8. Door and frame sizes and materials.
       9. Deviations from Specifications shall be noted in cover letter.

   C. Submittal Sequence: Submit schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work (e.g., hollow metal frames) which is critical in the project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by finish hardware, and other information essential to the coordinated review of hardware schedule.

   D. Keying Schedule: Submit separate detailed schedule, at the same time as the Hardware Schedule, indicating keying for all locks and how Owner’s instructions, on keying of locks has been fulfilled. Keying schedule must be approved before ordering any locks.
E. Pinning Transcript: Submit detailed schedule indicating each lock cylinder and core.

F. Templates: Furnish hardware templates to each fabricator of doors, frames and other work to be factory-prepared for the installation of hardware. Upon request, check shop drawings of such other work, to confirm that adequate provisions are made for proper location and installation of hardware.

1.4 QUALITY ASSURANCE

A. Manufacturer: Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer, although several may be indicated as offering products complying with requirements.

B. Product/Material Qualifications: Manufacturer's product numbers are indicated for convenience in identifying finish hardware items. Unless otherwise indicated, manufacturer's description for indicated product number constitutes minimum standards of quality, design, function and performance required for each item to be incorporated into the Project.
1. It will be the responsibility of the Bidder to furnish with his Bid a list clarifying any deviations from these specifications written or implied, in order that a fair and proper evaluation be made. Those Bidders not submitting a list of deviations will be presumed to have Bid as specified.

C. Supplier Qualifications: A recognized Architectural Finish Hardware Supplier, with warehousing facilities, who has been furnishing hardware in the project's vicinity for a period of not less than 2 years. Supplier shall be or employ an experienced Architectural Hardware Consultant (AHC) who is certified by and member of the Door and Hardware Institute. The Architectural Hardware Consultant shall be available, at reasonable times during the course of the work, for consultation about project's hardware requirements, to Owner, Architect and Contractor.
1. Supplier shall meet with the Owner to finalize keying requirements and obtain final instructions in writing.

D. Fire-Rated Openings: Provide hardware for fire-rated openings in compliance with NFPA Pamphlets No. 80, No. 101 and of authorities having jurisdiction requirements. Provide only hardware which has been tested and listed by UL, FM or Warnock Hersey for types and sizes of doors required and complies with requirements of door and door frame labels.
1. Where emergency exit devices are required on fire-rated doors, (with supplementary marking on doors’ UL or FM labels indicating "Fire Door to be Equipped with Fire Exit Hardware") provide UL or FM label on exit devices indicating "Fire Exit Hardware".

E. Standards: Comply with the requirements of the latest edition of the following standards, unless indicated otherwise:
1. American National Standards Institute (ANSI) Publications:
   1. A115 Series - Door and Frame Preparation.
   2. A156 Series - Hardware.
2. Builders Hardware Manufacturers Association (BHMA) Publications:
   1. 1201 - Auxiliary Hardware.
   2. 1301 - Materials and Finishes.
3. Door and Hardware Institute (DHI) Publications:
   2. Abbreviations and Symbols.
   3. Hardware for Labeled Fire Doors.
   4. Recommended Locations for Builder's Hardware for Standard and Custom Steel Doors and Frames.
4. National Fire Protection Association (NFPA) Publications:
   1. NFPA Pamphlet No. 80 - Standards for Fire Doors and Windows.
6. Americans with Disabilities Act (ADA).

F. Keying Conference: Conduct conference in accordance with Section 013100. In addition to Owner, Construction Manager, and Architect, conference participants shall also include Installer’s Architectural Hardware Consultant. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including, but not limited to, the following:
1. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
2. Preliminary key system schematic diagram.
3. Requirements for key control system.
4. Address for delivery of keys.

G. Preinstallation Conference: Conduct conference at Project site to comply with requirements of Section013100 as follows:
   1. Architectural Finish Hardware supplier (AFHS) shall conduct the preinstallation conference at the site. The AFHS shall instruct finish hardware installer on proper installation, adjustment and troubleshooting for each operable item of finish hardware specified. The AFHS shall observe the installation and adjustment of the first three locksets, closers and exit devices.

1.5 DELIVERY, STORAGE AND HANDLING

A. Package each hardware item in separate containers with all screws, wrenches, installation instructions and installation templates. Mark or tag each box with hardware heading and door number according to approved hardware schedule.

B. Packaging of door hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set numbers of approved hardware schedule. Two or more identical sets may be packed in same container.

C. Deliver individually packaged hardware items at the proper times to the proper locations (shop or project site) for installation. Provide a complete packing list showing items, door numbers and hardware headings with each shipment.

D. Store hardware in shipping cartons above ground and under cover to prevent damage.
   1. Provide secure lockup for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

E. Aluminum Door Hardware: If required by door manufacturer deliver hardware for aluminum doors as directed by the door supplier for factory installation.

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing door hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

B. Electrical System Roughing-in: Coordinate layout and installation of electrified door hardware with connections to power supplies, fire alarm system and detection devices, access control system, security system, and building control system, as applicable.

1.7 MAINTENANCE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 HARDWARE - GENERAL

A. Provide the materials or products indicated by trade names, manufacturer's name, or catalog number.

B. Provide manufacturer's standard products meeting the design intent of this Specifications, free of imperfections affecting appearance or serviceability.
   1. Base Metals: Produce hardware units of basic metal and forming method indicated using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units for finish designations indicated.
2. Provide hardware complete with all fasteners, anchors, instructions, layout templates, and any specialized tools as required for satisfactory installation and adjustment.
3. Hand of door: Drawings show direction of slide, swing or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.
4. Furnish screws for installation, with each hardware item. Provide Phillips flat-head screws except as otherwise indicated or approved. Finish screws exposed under any condition to match hardware finish or, if exposed in surfaces of other work, to match finish of such other work as closely as.
5. Finish all other hardware in accordance with the BHMA finish as follows, unless otherwise indicated in manufacturers screws to secure hardware.
6. Provide concealed fasteners for hardware units which are exposed when door is closed, except to extent no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work, except where indicated otherwise or where it is not feasible to adequately reinforce the work. In such cases, provide sleeves for each thru-bolt or use sex bolt fasteners.
7. Provide factory pinned cylinders and cores.

C. Hardware is specified in the hardware schedule by set, type, and functions which have been selected as best meeting the application requirements. Acceptable products for each category are specified under PART 2 of this Specification.

2.2 SPECIAL REQUIREMENTS

A. Hinges:
1. Provide non-removable pins for all exterior doors and out-swinging corridor doors. Use nonrising pins for all other doors.
2. Pre-drill pilot holes for hinge fasteners at factory to suit hinge type.
3. Provide continuous hinges where specified.

B. Locksets:
1. Locksets shall meet or exceed ANSI A156.13-94, Grade 1 requirements.

C. Panic Devices:
1. All panic devices shall have touchbars made of stainless steel, provide devices in stainless finish where specified.
2. All latchbolts are to be deadlatching.
3. Panic devices shall be through-bolted, using sex bolt fasteners.
4. Exit devices are to incorporate a flush and tapered end cap.
5. Hardware mullions are to be of the same manufacturer as the panic device. Provide keyed mullions unless otherwise specified. Provide mullion storage kits where specified.
6. Except on fire-rated doors, or unless specified otherwise, provide panic devices with hex key dogging device to hold latch bolt open on doors with closers.
7. Devices incorporating plastic dogging components will not be allowed.
8. Provide electrical options as specified.

D. Closers:
1. Comply with manufacturer’s recommendations for unit size based on door size, weather exposure and usage.
2. Through-bolt all closer units, using sex bolt fasteners.
3. Provide parallel arms for all overhead closers, except as otherwise indicated.
4. All surface closers shall exceed ANSI A156.4 Grade 1 requirements in all aspects as called for below. All closers shall have certification by an independent testing laboratory of 10,000,000 cycles without failure. Provide special rust inhibitive primer (SRI) where specified.
5. Furnish all brackets, drop plates and any other necessary hardware required to insure proper installation.

E. Stops
1. Provide heavy duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide overhead stop for interior doors that swing more than opens against equipment, casework, sidelights, and where conditions do not allow wall stop.

F. Thresholds and Gasketing
1. Provide thresholds, weatherstripping (including door sweeps, seals, astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
2. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

3. Gasketing and astragals on aluminum frames by door manufacturer.

G. Silencers
1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.3 KEYING

A. Standard Lock Cylinders: BHMA A156.5; Grade 1 cylinders; face finished to match lockset.

B. Key all locks separately, or alike, as directed by the Owner’s representative and Architect. Provide keys as follows:
1. Change Keys: Two (2) per lock.
2. Master Keys: Six (6) required (per system).

C. Existing Key System: Key cylinders to Owners existing master key system.

D. All exterior doors to be keyed to Schlage Primus, interior doors to match existing keyway.

2.4 KEY CONTROL SYSTEM

A. Fire Department Access Boxes:
1. Provide key lock boxes designed for storage of 2-5 keys. Manufactured by Knox Company or equal.
2. Provide one lock box at exterior and provide one near elevators, if applicable.
3. Locate in accordance with architectural detail. Where not specifically indicated, locate as directed by Architect.
4. Provide surface mounted or recessed based on direction from Architect.

2.5 HARDWARE FINISHES

A. Provide matching finishes for hardware units at each door to the greatest extent possible, unless otherwise indicated. In general, match items to the finish for the latch, lock or push-pull unit for color and texture.
1. Product description or schedule:
   1) 626 satin chrome-plated.
   2) 630 satin stainless steel.

2.6 HARDWARE PRODUCTS

A. Hinges:
1. Specified manufacturer: IVES Hardware; an Allegion Company.

2. Acceptable substitutions:
   1. Hager Companies.
   2. McKinney Products Company; an ASSA ABLOY Group company.
   3. Stanley Commercial Hardware; Div. of The Stanley Works.

B. Continuous Gear-Type Hinges:
1. Specified manufacturer: IVES Hardware; an Allegion Company.

2. Acceptable substitutions:
   1. Hager Companies.
   2. McKinney Products Company; an ASSA ABLOY Group company.
   3. Select Products Limited.

C. Locksets:
1. Specified manufacturer: Schlage Commercial Lock Division; an Allegion Company.


D. Exit Devices:
1. Specified manufacturer: Von Duprin; an Allegion Company

E. Closers:
1. Specified manufacturer: LCN Closers; an Allegion Company.

F. Flatgoods:
1. Specified manufacturer: Ives Hardware; an Allegion Company.
2. Acceptable substitutions:
   1. Burns.
   2. Rockwood.

G. Stops:
1. Specified manufacturer: Ives Hardware; an Allegion Company.
2. Acceptable substitutions:
   2. Hager Companies.
   4. Trimco

H. Overhead stops:
1. Specified manufacturer: Glynn-Johnson; an Allegion Company.
2. Acceptable substitutions:
   1. Architectural Builders Hardware Mfg., Inc.
   2. Door Controls International.
   3. Ives Hardware; an Allegion Company.
   4. Rixson Specialty Door Controls; an ASSA ABLOY Group.

I. Thresholds:
1. Specified manufacturer: Zero International
2. Acceptable substitutions:
   1. Pemko Manufacturing Co.
   2. Reese Enterprises.
   3. National Guard Products.

J. Door Gasketing/Weatherstripping:
1. Specified manufacturer: Zero International
2. Acceptable substitutions:
   1. Pemko Manufacturing Co.
   2. Reese Enterprises.
   3. National Guard Products.

PART 3 - EXECUTION

3.1 PREPARATION
A. Carefully inspect doors, frames, and conditions under which hardware will be installed. Notify the Architect of any conditions that would adversely affect the installation or subsequent door operations. Do not proceed until unsatisfactory conditions are corrected.
   1. Frames shall be verified, inspected, and confirmed by General Contractor as being plumb and true.

B. Refer to Sections 081113, 081416, and 084113 for additional installation requirements.

C. Prior to hardware installation, the Hardware Supplier shall meet with the Owner's Representative, Architect, and Hardware Installer to ensure the Installer has and understands the manufacturers' installation requirements for all hardware items.
   1. The Supplier shall observe the installation of the first lockset, closer and panic device.

3.2 INSTALLATION
A. Mount Hardware units at heights indicated in respective DHI Standards, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by Architect.
B. Install each hardware item in compliance with the manufacturer’s instructions and written recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be field finished, coordinate removal, storage and reinstallation or application of surface protections with finishing work. Do not install surface-mounted items until finishes have been completed on the substrate.

C. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
   1. Special care shall be taken to avoid damaging surrounding surfaces.

D. Provide fasteners and anchoring devices of suitable size, quantity, and type to secure hardware in proper position for heavy use and long life.
   1. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

E. Adjust door closers immediately upon installation. Adjust in exact conformance with manufacturer’s printed instructions. Advance backcheck to eliminate shock at dead stop. Set latching speed to assure unassisted positive latching.
   1. Degrees of swing of doors for self-limiting closers shall be maximum available.

F. Install each protection plate with a thinly-spread spot of mastic at its center to assure even contact before fastening with screws. Install all such plates on visual centers of closed doors. Set bottom edges of all such plates flush with door bottom.

G. Cut and fit thresholds to door frame profiles. Prepare thresholds for the attachment of strikes and clearance for spindles as required. Set thresholds in a continuously laid bed of polyisobutylene mastic sealant to completely fill voids and exclude moisture from every source.

H. Seal weather protection components attached to the exterior sides of doors and frames, such as drip caps and weatherstripping, in place with clear silicone caulk in such a manner as to ensure a continuously filled seam throughout the joinery.

I. Cut and fit weatherstripping accurately to provide the greatest possible continuity of the contact element. Adjust closer templating as required.

J. At exterior doors, obtain satisfactory operation of the installation, then apply a thin layer of clear silicone caulk under hinge leaves, and outside lock trim. Remove excess caulk after torquing fasteners.

3.3 ADJUST AND CLEAN

A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
   1. Clean adjacent surfaces soiled by hardware installation.

B. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

3.4 INSTRUCTION AND INSPECTION

A. Instruct Owner’s Personnel in proper adjustment and maintenance of hardware and hardware finishes, during the final adjustment of hardware.

B. After hardware is installed and adjusted, the Supplier shall inspect the job with the Architect and the Contractor to determine if the hardware is functioning properly.
   1. Maintain the instruction sheets, layout templates, and any supplementary literature regarding hardware in a readable condition. Transmit all such items to the Owner’s Representative, together with all spare parts, specialized tools, other accessories supplied with the hardware, and a copy of the approved hardware schedule at the time of instruction.

C. Continued Maintenance Service: Approximately six months after the acceptance of hardware in each area, the Installer, accompanied by the representative of the latch and lock manufacturer, shall return to the project and re-adjust every item of hardware to restore proper function of doors and hardware. Consult
with and instruct Owner's personnel in recommended additions to the maintenance procedures. Replace hardware items which have deteriorated or failed due to faulty design, materials or installation of hardware units at no cost to the Owner. Prepare a written report of current and predictable problems (of substantial nature) in the performance of the hardware.

HARDWARE SETS

HARDWARE SET 01
DOOR NUMBER: A414B  B100A

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OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ACCESS VIA VALID CARD READ. PANICS MAY BE DOGGED (MADE PUSH/PULL) ELECTRONICALLY OR VIA HEX KEY ON DEVICE. ALWAYS FREE EGRESS.
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OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ACCESS VIA VALID CARD READ. PANICS MAY BE DOGGED (MADE PUSH/PULL) ELECTRONICALLY OR VIA HEX KEY ON DEVICE. ALWAYS FREE EGRESS.
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OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ACCESS VIA VALID CARD READ. PANICS MAY BE DOGGED (MADE PUSH/PULL) ELECTRONICALLY OR VIA HEX KEY ON DEVICE. ALWAYS FREE EGRESS.

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OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ACCESS VIA VALID CARD READ. PANICS MAY BE DOGGED (MADE PUSH/PULL) ELECTRONICALLY OR VIA HEX KEY ON DEVICE. ALWAYS FREE EGRESS.
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**DOOR NUMBER:**

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# HARDWARE SET 06

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A414E  A414F

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B000A  B101A  B101B  B101D  B212A  B212B  B212C  B312A  B312C

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- A512A
- A512B

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- A404A
- A406A
- A407
- A501A
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- A503
- A504A
- A506A
- A507
- B304A
- B304D
- B305
- B306A
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- B104

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- B102

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| B101K | B209 |

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### HARDWARE SET 21
**DOOR NUMBER:**

**C012**

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**NOTE**

REMAINDER OF HARDWARE EXISTING

### HARDWARE SET 22
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**C002A**

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A001 C019 C023 C024

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HARDWARE SET 24
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OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ENTRY VIA VALID CARD READ. ALWAYS FREE FOR EGRESS.
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**DOOR/HARDWARE SET INDEX**

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**END OF SECTION 087100**
SECTION 101400 - SIGNAGE

PART 1 GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Signage:
      a. Flat Cut:
         1) Standard (101400.A30) - S02.
         2) Custom (101400.A31) - S04-S08, S10-S12.
      b. Film:
         1) Solid color vinyl (101400.A43 - S02, S09.
      c. Paint:
         1) Painted Graphic – Epoxy Paint (101400.A61) - S01.

B. Related Sections include the following:
   1. Section 012100 "Allowances" for interior signage and exterior door signage.
   2. Section 015000 "Temporary Facilities and Controls" for temporary Project identification signs and for temporary information and directional signs.
   3. Section 061000 "Rough Carpentry" for signage blocking.
   4. Section 064023 "Interior Architectural Woodwork" for hanging display systems.
   5. Section 088000 "Glazing" for film applied to glass.
   6. Section 099123 "Interior Painting" for painting behind vinyl film signage.
   7. Section 101423 "ADA and Code Signage" for related graphic substrate.

1.2 DEFINITIONS


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 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 1.4.G. "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.
      b. Film Graphic – submit a sample of each film graphic type in the form of small-scale color proofs for each graphic or mural.

E. Samples for Verification:
   1. Submit an 8 inch by 10 inch sample of each material showing finishes, colors, surface textures and qualities of manufacturer and design of each component including graphics.
   2. 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: S07 - Letter “C”
   3. Submit 12-inch-long actual samples of each accessory required.
   4. Samples to be kept by the Architect as a record to later match against items in the field.

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 if 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. 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. Furniture.
   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.


5. Dimensions shall be reviewed and accepted by signage manufacturer prior to submittal of shop drawings.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For fabricator.

B. Warranty: Special warranty specified in this Section.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For signs to include in maintenance manuals. Include the following:
   1. Methods for maintaining wall covering.
   2. 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.

1.7 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.

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.

1.8 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.

1.9 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. Interior Environmental Limitations: Do not deliver and install glass graphics until spaces are enclosed and weather tight, wet work in spaces to receive murals is complete and dry, work above ceilings is complete, and temporary or permanent HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.
   1. Maintain a constant temperature not less than 60 deg F in installation areas for at least 10 days before and 10 days after installation.

C. Lighting: Do not install vinyl wall graphics until permanent level of lighting is provided on the surfaces to receive murals.

D. Ventilation: Provide continuous ventilation during installation and for not less than the time recommended by the vinyl wall graphics manufacturer for full drying and curing.

E. Field Measurements: Verify recess openings by field measurements before fabrication and indicate measurements on Shop Drawings.
1.10 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.

C. Coordinate location of remote transformers with building construction. Ensure that any transformers are accessible after completion of work.

1.11 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.
   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 SignComp Extrusions and Systems (877.784.0405) or approved comparable product.
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 (1.0, 1.5, 2.0, 3.0, 4.0, 5.0, 6.0”) 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.
   b. Brushed finish – vertical grain, brushed face, then clear coated with low gloss acrylic polyurethane.
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. PETG (Polyethylene Terephthalate Glycol) Sheet: ASTM D 5047-17 category as standard with manufacturer for each sign.
   1. Tensile Strength: 7,700 lb/sq. in. per ASTM D 638.
   2. Flexural Modulus of Elasticity: 310,000 lb/sq. in. per ASTM D 790.
H. Photopolymer Sheet: Manufacturer’s recommended photopolymer for producing integral non-laminated raised copy.
I. Polycarbonate Sheet: Of thickness indicated, manufactured by extrusion process, ASTM C 1349, Appendix X1, Type II (coated, mar-resistant, UV-stabilized polycarbonate), coated on both surfaces with abrasion-resistant coating:
   1. Impact Resistance: 16 ft-lbf/in. per ASTM D 256, Method A.
   2. Tensile Strength: 9000 lb/sq. in. per ASTM D 638.
   3. Flexural Modulus of Elasticity: 340,000 lb/sq. in. per ASTM D 790.
   5. Abrasion Resistance: 1.5 percent maximum haze increase for 100 revolutions of a Taber abraser with a load of 500 g per ASTM D 1044.
      a. Basis-of-Design Product: Subject to compliance with requirements, provide “Lexan” by A&C Plastics or a comparable product of an approved manufacturer.
J. Vinyl Film: UV-Resistant vinyl film of nominal thickness indicated, with pressure-sensitive, permanent adhesive on back; die cut to form characters or images as indicated and suitable for exterior applications.

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. Baked Enamel:
      a. Exposed panel finish: Deterioration includes, but is not limited to, the following:
         1) Color fading more than 5 Hunter units when tested according to ASTM D 2244.
         2) Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
         3) Cracking, checking, peeling, or failure of paint to adhere to bare metal.
   2. 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.
   3. 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. Mounting Methods: Use double sided vinyl tape and silicone adhesive fabricated from materials that are not corrosive to sign materials and mounting surface.

B. 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.

C. Visible studs shall have sleeves painted to match color specified by Architect.

D. Ceiling and Panel Attachments: Contractor shall install attachment components as indicated on the Construction Drawings. Components must be sole-sourced and installed per the manufacturer's written instructions. Quantities as required to complete design as indicated on the Construction Drawings.
   1. Ceiling Attachment: Subject to compliance with requirements, provide "BS355SET" by Arakawa Hanging Systems or comparable product with the following product characteristics, submitted to and accepted by Architect prior to bidding:
      b. Diameter: 63/64 inches.
      c. Height: 1 inches.
      d. Maximum Weight: Up to 65 pounds when paired with 1/16 inch stainless steel cable.
      e. Cable Size: 1/16 inch.
   2. Panel Attachment: Subject to compliance with requirements, provide "SF31SSSET" by Arakawa Hanging Systems or comparable product with the following product characteristics, submitted to and accepted by Architect prior to bidding:
      a. Description: Intended for hanging panels, signs and similar objects up to 3/8 inches thick.
      c. Maximum sign panel thickness: up to 3/8 inch.
      d. Maximum Weight: Up to 65 pounds when paired with 1/16 inch stainless steel cable.
      e. Cable Size: 1/16 inch.

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 distorsion 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. Fast Signs (formerly Lawrence Sign Up).
3. Seemore Signs.
4. Star Signs, Inc.
5. Young Sign Company.
6. Miller Sign Shoppe

B. Refer to Article 2.1 for material technical information.
1. Material: High-Grade

2.6 FLAT CUT

A. General: Flat Cut
1. Standard (101400-A30 - S02).
2. Custom (101400.A31 - S03-S08, S10-S12).

B. Flat cut characters and shapes with uniform faces; square-cut, smooth, eased edges; precisely formed lines and profiles; and as follows:
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. APCO Graphics, Inc.
   c. ASI Sign Systems, Inc.
   d. Dimensional Innovations.
   e. Gemini Incorporated.
   f. Metallic Arts.
   g. Square One.

C. Refer to Drawings for:
1. Sign Height, Width and Depth.
2. Typeface and Character Spacing.
3. Color.
D. Mounting: Furnish inserts and other anchorage devices to connect masonry work. Coordinate anchorage devices with supporting structure.
   1. Fabricate anchorage devices that are capable of withstanding dead loads of units.
   2. Lettering shall be pin-mounted and stood off wall 1 inch unless indicated otherwise.

E. Refer to Article 2.1 "Materials" for material technical information.

F. Refer to Article 2.2 "Finishes" for materials selected below.

G. Material selection:
   1. ALUMINUM
      a. Fabricate flat-cut-out characters and shapes from aluminum sheet/plate of thickness as indicated on drawings.
      b. 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.
      c. Finishes:
         1) Baked Enamel or Powder-Coat Finish: Manufacturer's standard, in color finish to match that of anodized aluminum.
         2) Interior: Industrial paint finish.
   2. ACRYLIC
      a. Fabricate flat-cut-out characters and shapes from cast acrylic sheets of thickness as indicated on drawings.
      b. Finishes:
         1) Overcoat: Clear organic coating.
         2) Painted: Paint face and edges of acrylic characters as indicated on the A700 Sheets and Article 2.3 "Finishes" and as recommended in writing by manufacturer.
            (a) [[OPTION ]] Painted Edges: Paint edges of acrylic characters with laminated metal facing as recommended in writing by manufacturer.
            (b) [[ Retain one option in "Mounting" Subparagraph; revise to suit Project. Insert specific material or exposed fastener design if required; verify available materials and designs with manufacturers. ]]

2.7 FILM SIGNAGE

A. Solid Color Vinyl [101400.A43 - S02, S09]:
   1. Basis of Design Products: Subject to compliance with requirements, provide “2080” by 3M or a comparable product with the following criteria proposed to and accepted by Architect prior to bidding.
      b. Color: As selected by Architect from manufacturer’s full range.
      c. Thickness: 0.35 mm without adhesive.
      d. Adhesive type: Manufacturer’s standard releasable pressure sensitive adhesive.
      e. Adhesive color: As selected by Architect from manufacturer’s full range.
      f. Liner: Polyethylene paper.
      g. Chemical Resistance: Resists mild alkalis, mild acids, and salt. Excellent resistance to water.
      h. Applied film shrinkage: less than 0.4 mm.
      i. Weeded Custom Cut in factory as indicated on drawings for field installation.
      j. Artwork shall be furnished by the Owner, on disc to manufacturer’s standards.

2.8 PAINTED CUSTOM GRAPHICS

A. Painted Graphic – Paint (101400.A61 - S01 (painted on CMU))

B. Contractor shall fabricate templates for installation of graphics artwork indicated on Construction Drawings. Paint products indicated shall be compatible for installation with template materials selected by signage fabricator.
   1. Artwork shall be furnished by the Owner, on disc by Architect for signage fabricator’s use.
   2. Refer to Section 099123 “Interior Painting” and Section 099600 “High Performance Coatings” for product requirements.
   3. Graphics indicated are to be installed on the following substrates:
4. PG1 – Concrete substrates.
5. PG2 – CMU substrates.

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,
      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.

I. Installation – Flat Cut
1. Installation of panels:
   a. Install panels in locations and mounting heights as indicated on Drawings. Attach using concealed
      system to wall surfaces unless otherwise indicated. Utilize mechanical fasteners appropriate for wall
      substrate. Keep perimeter lines straight, level, and plumb. Align panels with adjacent installations.
   b. For textured substrates, install using 3M Textured Surface Applicator as recommended or required by
      manufacturer for best installation practices for a warranted installation.

J. Installation – Film Signage
1. Field-Applied, Vinyl-Film Signs:
   a. Align sign Characters in final position before removing release liner. Remove release liner in stages,
      and apply and firmly press characters into final position. Press from the middle outward to obtain good
      bond without blisters or fishmouths. Remove carrier film without disturbing applied vinyl film.
   b. Remove excess adhesive at finished seams, perimeter edges, and adjacent surfaces.

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
RAIL, TYP U.N.O.
OPEN TO DRMZ-25-25
HANDRAIL TO WRAP
06 20 23.A14
ELEVATOR SHAFT
CONT AROUND CORNER
06 20 23.A14
(1) LAYER 3/4" WD5, MOUNTED TO COLUMN

PREP TO RECEIVE NEW PAINT

RE: A1/A521 FOR JAMB CONDITION

CMU SMOOTH & PREP TO B101b

RE: A1/A521 FOR JAMB

RE: A1/A521 FOR JAMB

Hollis + Miller Architects
7. PATTERNS SHOWN ON THIS SHEET SHOULD REFLECT PATTERN ENDS.

ENSURE FLOORING EXTENDS UNDER CABINET TOE SPACES OF MATERIAL MODULE.

(Not included in this Bid Package)

GRAIN DIRECTION
Sheet notes:

1. Revert current back for sheet format.
2. CORONATIONS LOCATED WHERE DESIRE DO NOT DIRECTED MALE PATH COLUMS/ADJACENT METAL TRENCHES.
3. CORONATIONS/TRANSITIONS NOT LOCATED DO NOT OCCUR IN BAND CORNERS.
4. PRINT IN BLACK PLOTTER LOCATIONS SHEETS LAYOUT."
1. CONTRACTOR TO COORDINATE BLOCKING NEEDS WITH ALTERNATES PERFORMING ANY WORK. OTHERWISE, SIGNAGE CONTRACTOR TO CONFIRM MESSAGE SPECIFIED UNLESS NOTED OTHERWISE.
2. IT IS THE RESPONSIBILITY OF THE FABRICATOR TO SEE ALSO SECTION 10 14 00 OF THE SPECIFICATIONS.
3. REPORTED TO THE ARCHITECT IN WRITING BEFORE BEGGINING WORK WITH PREPARATION OF DRAWINGS OR SPECIFICATIONS.
4. PROJECT SUPERVISOR TO COORDINATE INTERFACES AND INFORMATION TO WORKING DRAWINGS.
5. CONTRACTOR SHALL SUMMARIZE SHEET PREPARATION ON WORKING DRAWINGS FOR ALL PROJECT SUPERVISOR TO COORDINATE INTERFACES AND INFORMATION TO WORKING DRAWINGS.
6. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR PROPER PREPARATION AND DISTRIBUTION OF ALL INFORMATION TO WORKING DRAWINGS.
7. ALL DRAWINGS CONTAINED IN THIS SPECIFICATION ARE FOR DETAILED TO CONSTRUCTION CONTRACTOR ONLY 900
8. CONTRACTOR IS RESPONSIBLE FOR PREPARATION AND DISTRIBUTION OF ALL INFORMATION TO WORKING DRAWINGS.
9. CONTRACTOR IS RESPONSIBLE FOR PREPARATION AND DISTRIBUTION OF ALL INFORMATION TO WORKING DRAWINGS.
10. KEY PLAN
AS REQUIRED FOR SECURE ANCHORAGE. SEE ARCHITECTURAL DETERMINATION TO PROVIDE APPROPRIATE CHEMICAL BOND BREAK BETWEEN SIGNAGE & GRAPHICS FLOOR PLAN - AREA A - LEVEL 1

INSTRUCTIONS FOR STRUCTURAL APPROPRIATENESS HAVE BEEN DEVELOPED TO ENSURE STRUCTURAL STABILITY. THESE GENERAL NOTES AND SUPPLEMENTAL TO THE PROJECT SHEET KEYNOTE LEGEND
• PROVIDE CHEMICAL BOND BREAK BETWEEN SIGNAGE & GRAPHICS PEELING FROM THE SURFACE. WELDS, BOLTS, OR OTHER HARDWARE NOT TO BE PROVIDED FOR EXCURSION NO. 1: JANUARY 30, 2016, FOR CIVIC CENTER, NYC.
• PROVIDE MASS COMBUSTIBLE BUILDING MATERIALS NOT TO EXCEED 50% OF THE TOTAL SIGNAGE & GRAPHICS FLOOR PLAN - AREA A - LEVEL 1
• PROVIDE CHEMICAL BOND BREAK BETWEEN SIGNAGE & GRAPHICS PEELING FROM THE SURFACE. WELDS, BOLTS, OR OTHER HARDWARE NOT TO BE PROVIDED FOR EXCURSION NO. 1: JANUARY 30, 2016, FOR CIVIC CENTER, NYC.
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• PROVIDE CHEMICAL BOND BREAK BETWEEN SIGNAGE & GRAPHICS PEELING FROM THE SURFACE. WELDS, BOLTS, OR OTHER HARDWARE NOT TO BE PROVIDED FOR EXCURSION NO. 1: JANUARY 30, 2016, FOR CIVIC CENTER, NYC.
\textbf{SHEET KEYNOTE LEGEND}

01-0400.04 - PLAY CUT GARDEN: CUSTOM

\textbf{SHEET NOTES}

\textbf{EGD GENERAL NOTES}

\textbf{HERITAGE MIDDLE SCHOOLS}

\textbf{SIGNAGE & GRAPHICS FLOOR PLAN - AREA B - LEVEL 1}

\textbf{SCALE/GRAPHICS PLAN - LEVEL 1 - AREA B}

\textbf{KEY PLAN}

\textbf{SCALE}

\textbf{PHASE 2 SCOPE OF WORK}

\textbf{NOT INCLUDED IN THIS BID PACKAGE}
**Sheet Notes**

**EGO General Notes**

These general notes are supplemental to the project documents. This is a working drawing and is subject to change.

1. The stored drawing files are subject to change.
2. The stored drawing files are subject to change.
3. The stored drawing files are subject to change.
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5. The stored drawing files are subject to change.
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8. The stored drawing files are subject to change.
9. The stored drawing files are subject to change.
10. The stored drawing files are subject to change.

**Key Plan**

- Phase 2 Scope of Work
  (Not included in this Bid Package)

**Sheet Keynote Legend**

- A1 1/2" = 1'-0"
- A2 1/4" = 1'-0"
- A3 1/8" = 1'-0"

**Approved to Be Supplied By Architect**

- All dimensions and tolerances must be confirmed in the field prior to final estimation.
- All attachments to be confirmed by architect and specified for bid.
- M500000: JENF SITE DEVELOPMENT & SITE IMPROVEMENT

**Project Title**

- Heritage Middle School Renovations
- 660 W. Kings Street
- Liberty Public Schools
- Liberty, OH 44432

**Project Description**

- A702B Signage & Graphics Floor Plan - Area B - Level 2

**Scale**

- A1 1/2" = 1'-0"
### ADA & Code Signage Schedule - Area A

<table>
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<tr>
<th>Room</th>
<th>Sign Type</th>
<th>Area</th>
<th>Direction</th>
<th>Mounting Surface Method</th>
<th>Notes</th>
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### ADA & Code Signage Schedule - Area B

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### ADA & Code Signage Schedule - Area C

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### Graphics Schedule

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**Notes:**
- Phase 2 Scope of Work
- Not included in this Bid Package
REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES

1. APPLICABLE TO THE ENTIRE PROJECT.

2. DEVICES ARE NOT SHOWN ON THESE DEMOLITION PLANS. THE FIRE ALARM DEMOLITION CONTRACTOR IS REQUIRED TO IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF THEIR PERFORMANCE DESIGN AND CONSTRUCTION DOCUMENTS.

3. ALL ELECTRICAL AND FIRE ALARM REQUIREMENTS AND UPGRADE CONDITIONS.

4. REFER TO NEW WORK PLANS FOR DEVICE REPLACEMENT IN ALTERNATE WORK AREA.

EXISTING ELEVATOR MACHINE ROOM: DEMO ELECTRICAL CONNECTIONS TO DEMOLISHED ELEVATOR CONTROLLER, CAB LIGHTS AND POWER. SALVAGE EXISTING CIRCUITS FOR NEW ELEVATOR. DEMO ASSOCIATED FIRE ALARM DEVICES AND INTERLOCKS. MAINTAIN EXISTING SERVICE RECEPTACLE. FIELD DETERMINE EXACT REQUIREMENTS.

EXISTING ELEVATOR PIT: MAINTAIN EXISTING SERVICE RECEPTACLE AND SUMP PUMP RECEPTACLE.

REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH RESTROOM(S). REFER TO NEW WORK PLANS FOR RECEPTACLE REPLACEMENT IN AREA B.

PROJECT NORTH TRUE NORTH

Scale 3/32” = 1’-0”
GENERAL DEMOLITION NOTES:
REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES

1. APPLICABLE TO THE ENTIRE PROJECT.
   REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH REGARD TO FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES ARE NOT SHOWN ON THESE DEMOLITION PLANS.
   THE FIRE ALARM DEMOLITION CONTRACTOR IS REQUIRED TO IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF COORDINATE WITH ELEVATOR MANUFACTURER / CONTRACTOR.

2. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN SCRAMBLE AREA. SALVAGE CONDUIT RACEWAYS AND BACK BOXES WHERE SHOWN TO BE REUSED PER NEW WORK PLANS, OR FIELD DETERMINED BY THE CONTRACTOR TO BE OF USE FOR NEW WORK. SALVAGE CIRCUIT BREAKER FOR REUSE WHERE POSSIBLE. FIELD DETERMINE EXACT EXTENTS OF DEMOLITION.

3. PROVIDE DEMOLITION AS REQUIRED IN STORAGE AREA TO ACCOMMODATE NEW WORK. FIELD DETERMINE EXACT REQUIREMENTS.

4. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN CONCESSIONS AREA. COORDINATE WITH G.C. PATCHING AND OR REPLACEMENT OF CMU BLOCK WHERE COUNTER OUTLETS ARE DEMOLISHED. SALVAGE CIRCUIT BREAKERS FOR REUSE WHERE POSSIBLE. FIELD DETERMINE EXACT EXTENTS OF DEMOLITION.

5. PROVIDE DEMOLITION AS REQUIRED IN BOY'S LOCKER ROOM TO ALLOW FOR REUSE OF ALL STEEL SUPPORTS. SALVAGE CIRCUIT BREAKER FOR REUSE WHERE POSSIBLE. FIELD DETERMINE EXACT EXTENTS OF DEMOLITION.

6. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REUSE OF ALL STEEL SUPPORTS. SALVAGE CIRCUIT BREAKERS FOR REUSE WHERE POSSIBLE. FIELD DETERMINE EXACT EXTENTS OF DEMOLITION.

7. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN MACHINE ROOM: DEMO ELECTRICAL CONNECTIONS TO DEMOLISHED ELEVATOR CONTROLLER, CAB LIGHTS AND POWER. SALVAGE EXISTING CIRCUITS AND ELECTRICAL INTERLOCKS. MAINTAIN EXISTING SERVICE REQUIREMENTS.

EXISTING ELEVATOR SHAFT: MAINTAIN EXISTING SERVICE.

EXISTING ELEVATOR MACHINE ROOM: DEMO ELECTRICAL.

8. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN CORRIDOR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

9. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

10. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

11. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

12. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

13. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

14. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

15. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

16. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

17. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

18. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

19. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

20. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

21. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.

22. PROVIDE DEMOLITION OF ALL POWER AND LOW VOLTAGE IN BOYS RR TO ALLOW FOR REMOVAL OF EXISTING ELEVATOR SHAFTS AND SERVICE REQUIREMENTS.
GENERAL DEMOLITION NOTES:
1. REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES
2. REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH REGARDS TO FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES ARE NOT SHOWN ON THESE DEMOLTION PLANS. THE FIRE ALARM DEMOLTION CONTRACTOR IS REQUIRED TO IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF THEIR PERFORMANCE DESIGN AND CONSTRUCTION DOCUMENTS.

PLAN DEMOLITION NOTES:
1. ALL ELECTRICAL AND LOW VOLTAGE DEVICES, EQUIPMENT CONNECTIONS, ASSOCIATED CONDUITS, CONDUCTORS, CABLING, BOXES, ETC. WITHIN THIS ARE SHALL BE FULLY DEMOLISHED TO ACCOMMODATE NEW WORK PER NEW WORK PLANS. DEVICES SHOWN ARE BASED ON SITE OBSERVATIONS, AND NOT ALL DEVICES ARE SHOWN. CONTRACTORS SHALL FIELD DETERMINE EXACT CONDITIONS. MAINTAIN ANY EXISTING DEVICE DETERMINED TO REMAIN. COORDINATE WITH DISTRICT I.T. REPRESENTATIVE.
2. DEMOLISH EXISTING ELECTRICAL PANEL, ASSOCIATED PANEL FEEDER AND PANEL BRANCH CIRCUITS, AND ALL ASSOCIATED CONDUITS. ANY EXISTING BRANCH LOADS THAT ARE DETERMINED TO REMAIN WILL NEED RECIRCUITED FROM A NEW PANEL SHOWN ON THE NEW WORK PLANS. REPORT ANY OT THESE LOADS TO A/E TEAM AS REQUIRED.
3. EXISTING I.T. RACK (IDF-1) TO BE REMOVED AND RELOCATED PER NEW WORK PLANS. ALL ASSOCIATED CABLING TO BE DEMO'ED TO ASSOCIATED COMMUNICATION DEVICES. FIBER SERVING RACK FROM MAIN TELECOMM ROOM MDF TO BE FULLY REMOVED. COORDINATE WITH DISTRICT REPRESENTATIVE.
GENERAL DEMOLITION NOTES:

REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES

1. REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH REGARD TO FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES ARE NOT SHOWN ON THESE DEMOLITION PLANS. THE IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF THEIR PERFORMANCE DESIGN AND CONSTRUCTION DOCUMENTS.

2. CONNECTIONS, ASSOCIATED CONDUITS, CONDUCTORS, CABLING, J-BOXES, ETC. WITHIN THIS AREA SHALL BE FULLY PROTECTED DURING CONSTRUCTION.

3. ALL OTHER TRADES.

4. BASE BID SHALL INCLUDE FULL DEMOLITION OF MAIN FIRE ALARM PANEL AND FIRE ALARM SYSTEM. REFER TO GENERAL DEMOLITION NOTES FOR FURTHER SCOPE CLARIFICATION.

5. EXISTING ACCESS CONTROLS WITHIN ALTERNATE WORK AREA SHALL REMAIN. MAINTAIN ALL CABLING TO DEVICES AND EXISTING TIME CLOCK POWER AND COMMUNICATIONS TO REMAIN.

6. EXISTING VERTICAL CONDUIT PATHWAY BETWEEN FLOORS SHALL REMAIN.

7. EXISTING INTERCOMM SYSTEM WITHIN ALTERNATE WORK AREA SHALL REMAIN. MAINTAIN ALL CABLING TO DEVICES AND

8. EXISTING THREE-HEAD ACCESSORIES WITHIN ALTERNATE WORK AREA SHALL REMAIN. MAINTAIN ALL CABLING TO DEVICES AND

9. CONTRIBUTE WITH DISTRICT I.T. PERIODIZATION DEMOLITION OF ALL

10. ALL TRADES.

11. NORTHBOUND/DOWNSTAIRS.

12. SOUTHBOUND/UPSTAIRS.

13. NORTHBOUND/DOWNSTAIRS.

14. SOUTHBOUND/UPSTAIRS.

15. NORTHBOUND/DOWNSTAIRS.

16. SOUTHBOUND/UPSTAIRS.

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**Phase 2 Scope of Work**
(NOT INCLUDED IN THIS BID PACKAGE)
GENERAL DEMOLITION NOTES:
 REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES
1. APPLICABLE TO THE ENTIRE PROJECT. REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH
2. REGARD TO FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES ARE NOT SHOWN ON THESE DEMOLITION PLANS. THE FIRE ALARM DEMOLITION CONTRACTOR IS REQUIRED TO IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF THEIR PERFORMANCE DESIGN AND CONSTRUCTION DOCUMENTS.

PLAN DEMOLITION NOTES:
ALL ELECTRICAL AND LOW VOLTAGE DEVICES, EQUIPMENT CONNECTIONS, ASSOCIATED CONDUITS, CONDUCTORS, AREA A BOXES, ETC. WITHIN THIS AREA SHALL BE FULLY DEMOLISHED TO ACCOMMODATE NEW WORK PER NEW WORK FIELD DETERMINE EXACT CONDITIONS. MAINTAIN ANY EXISTING DEVICE DETERMINED TO REMAIN. COORDINATE WITH DISTRICT I.T. REPRESENTATIVE DEMOLITION OF ALL COMMUNICATIONS AND ACCESS CONTROLS. COORDINATE WITH ALL OTHER TRADES.

DEMOLISH EXISTING ELECTRICAL PANEL, ASSOCIATED PANEL FEEDER AND PANEL BRANCH CIRCUITS, AND ALL ASSOCIATED CONDUITS. ANY EXISTING BRANCH LOADS THAT ARE DETERMINED TO REMAIN WILL NEED RECONFIGURED FROM A NEW PANEL SHOWN ON THE NEW WORK PLANS. REPORT ANY OF ALL EXISTING POWER CONDUITS AND LOW VOLTAGE CONDUITS OR CABLING AT STRUCTURE SHALL BE DEMOLISHED, OR RELOCATED IF DETERMINED TO REMAIN. E.C. SHALL FIELD DETERMINE CONDUIT OR CABLE TYPE AND SERVICE, AS WELL AS IF IT IS REQUIRED. INTENT IS ELIMINATE THESE ITEMS AT THIS AREA, PARTICULARLY THOSE TRANSITIONING INTO THE 1923 BUILDING VIA LB FITTINGS. COORDINATE WITH DISTRICT I.T. REPRESENTATIVE THE EXISTING LOW VOLTAGE ITEMS. REPORT ANY ITEMS NOT ABLE TO REMOVE OR RELOCATE TO A/E TEAM AS REQUIRED. FIELD DETERMINE EXACT REQUIREMENTS.

EXCEPTIONS TO PLAN DEMOLITION NOTES:
2 ADDENDUM #2 01.03.2024
1. REFER TO SHEET DE202A FOR GENERAL DEMOLITION NOTES
2. REFER TO SHEET DE202A, GENERAL DEMOLITION NOTE 7 WITH
3. REGARD TO PLAN DEMOLITION NOTES
4. REFER TO SHEET DE202A, PLAN DEMOLITION NOTE 3 ABOVE. REROUTE CONDUIT AND CONDUCTOR PATH AS REQUIRED TO ELIMINATE LB FITTINGS TO REQUIREMENTS.

KEY PLAN

ALTERNATE #3
CLASSROOM 7
A500
MEZZANINE
A512
CORRIDOR
A510
CLASSROOM 7
A509
SPEECH / DEBATE / TINKER FLEX
A505
FLEX CONF
A504
SS
CLASSROOM 6
A503
SS
CLASSROOM 7
A502
SS
CLASSROOM 7
A501

A1
DEMOITION POWER PLAN - LEVEL 2 - AREA A

SHEET KEYNOTE LEGEND

PROJECT NORTH TRUE NORTH
SCALE 3/32" = 1'-0"

DEMOITION POWER PLAN - LEVEL 2 - AREA A

Please consider the environment before printing this.
GENERAL DEMOLITION NOTES:

1. REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES

2. REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH REGARDS TO FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES ARE NOT SHOWN ON THESE DEMOLTION PLANS. THE FIRE ALARM DEMOLTION CONTRACTOR IS REQUIRED TO IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF THEIR PERFORMANCE DESIGN AND CONSTRUCTION DOCUMENT.

PLAN DEMOLITION NOTES:

1. DEMOLISH EXISTING ELECTRICAL PANEL, ASSOCIATED PANEL BRANCH CIRCUITS, AND ALL ASSOCIATED CONDUITS. ANY EXISTING BRANCH LOADS THAT ARE DETERMINED TO REMAIN WILL NEED RECIRCUITED FROM A NEW PANEL SHOWN ON THE NEW WORK PLANS. REPORT ANY OT THESE LOADS TO A/E TEAM AS REQUIRED. EXISTING FEEDER CONDUCTORS SHALL BE REMOVE BACK TO EXISTING PANEL. CONDUIT SHALL BE PARTIALLY DEMOLISHED, BACK TO A POINT WHERE FEASIBLE TO ALLOW FOR CONTINUATION TO NEW REPLACMENT PANEL AS LOCATED PER NEW WORK PLANS. FIELD DETERMINE EXACT REQUIREMENTS.

2. DEMO AND MODIFY EXISTING POWER IN THIS ROOM TO ACCOMMODATE PARTIAL DEMOLITION AND AS REQUIRED TO MEET NEW WORK PLANS. FIELD DETERMINE EXACT REQUIREMENTS.

3. DISTIRCT I.T. REPRESENTATIVE DEMOLITION OF ALL COMMUNICATIONS AND ACCESS CONTROLS. COORDINATE WITH ALL OTHER TRADES.

4. ALL ELECTIRICAL AND LOW VOLTAGE DEVICES, EQUPMENT CONNECTIONS, ASSOCIATED CONDUITS, CONDUCTORS, BOXES, ETC. WITHIN THIS ARE SHALL BE FULLY DEMOLISHED TO ACCOMMODATE NEW WORK PER NEW WORK PLANS. DEVICES SHOWN ARE BASED ON SITE OBSERVATIONS.

5. SCALE = 1" = 1'-0"

6. SHEET KEYNOTE LEGEND

7. SHEET NO: DE202B

8. JOB NO: 23024

9. DRAWN BY: RJD

10. CHECKED BY: RJD

11. DATE: 12.07.2023

12. SCALE: 1" = 1'-0"

13. PROJECT NORTH TRUE NORTH

14. SHEET DESCRIPTION:

DE202B  DEMOLITION POWER PLAN - LEVEL 2 - AREA B

15. ALTERNATE #3

16. ALTERNATE #2 01.03.2024

17. MHA Food Facility Consultants, LLC

Food Facility Planner
7840 Conser Street
Overland Park, Johnson County, KS 66204

18. Smith & Boucher Engineers

Mech/Elect/Plumb Engineer
816.531.8572 fax

19. Bob D. Campbell

Structural Engineer
4338 Belleview Ave
Kansas City, Jackson County, MO 64111

20. Heritage Middle School Renovations

June 21, 2011

21. 100% CONSTRUCTION DOCUMENTS

22. = Phase 2 Scope of Work (Not included in this Bid Package)
GENERAL DEMOLITION NOTES:
REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES APPLICABLE TO THE ENTIRE PROJECT.
REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH REGARDS TO FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES ARE NOT SHOWN ON THESE DEMOLTION PLANS. THE FIRE ALARM DEMOLITION CONTRACTOR IS REQUIRED TO IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF THEIR PERFORMANCE DESIGN AND CONSTRUCTION DOCUMENTS.

PLAN DEMOLITION NOTES:
REFER TO NEW WORK PLANS FOR RECEPTACLE REPLACEMENT IN RESTROOM(S).

= Phase 2 Scope of Work
(Not included in this Bid Package)
GENERAL DEMOLITION NOTES:
REFER TO SHEET DE100A FOR GENERAL DEMOLITION NOTES APPLICABLE TO THE ENTIRE PROJECT.

2. REFER TO SHEET DE100A, GENERAL DEMOLITION NOTE 7 WITH REGARDS TO FIRE ALARM DEMOLITION. EXISTING FIRE ALARM DEVICES ARE NOT SHOWN ON THESE DEMOLTION PLANS. THE FIRE ALARM DEMOLITION CONTRACTOR IS REQUIRED TO IDENTIFY ALL EXISTING DEVICES AND LOCATIONS AS PART OF THEIR PERFORMANCE DESIGN AND CONSTRUCTION DOCUMENTS.

PLAN DEMOLITION NOTES:

1. ALL ELECTRICAL AND LOW VOLTAGE DEVICES, EQUIPMENT, BRANCH CIRCUITS, AND ALL ASSOCIATED CONDUITS. ANY EXISTING BRANCH LOADS THAT ARE DETERMINED TO REMAIN WILL NEED RECIRCUITED FROM A NEW PANEL SHOWN ON THE NEW WORK PLANS. REPORT ANY OF THESE LOADS TO A/E TEAM AS REQUIRED. EXISTING FEEDER CONDUCTORS SHALL BE REMOVE BACK TO EXISTING PANEL. CONDUIT SHALL BE ALLOW FOR CONTINUATION TO NEW REPLACEMENT PANEL AS REQUIREMENTS.

2. AREA A = Phase 2 Scope of Work (Not included in this Bid Package)

3. AREA B

4. AREA C

5. SCALE: 3/32" = 1'-0"
1. GENERAL NOTES APPLICABLE TO THE ENTIRE PROJECT.

TYPICAL LIGHTING GENERAL NOTES:

REFER TO SHEET E100A FOR TYPICAL LIGHTING GENERAL

FIELD DETERMINE EXACT CONDITIONS.

RECONNECT WITH NEW LED LIGHT FIXTURES WITHIN AREA INDICATED, IN PLACE OF THE FLUORESCENT LIGHT FIXTURES SHOWN ON THE DEMOLITION PLANS. FIELD DETERMINE EXACT LOCATION OF FIXTURES. CLASSROOM FIXTURES (6 TOTAL) SHALL BE TYPE "RA-L". FLEX FIXTURES (6 TOTAL) SHALL BE TYPE "RA-L".

This sheet applies only to the material and items shown on this sheet. All drawings, instruments or other documents not exhibiting this seal shall not be considered prepared by this architect, this seal.

Please consider the environment before printing this.
1. REFER TO SHEET E200A FOR TYPICAL ELECTRICAL RACEWAY

AREA B

AREA C

RS RS

Elev

xA416

Coach's RR

TYPICAL ELECTRICAL RACEWAY

GENERAL NOTES:

1. REQUIRED TO CIRCUIT LIGHT FIXTURE(S) AND LIGHTING CONTROLS TO EXISTING RESTROOM LIGHTING CIRCUIT. FIELD DETERMINE EXACT CONDITIONS.

PLAN NOTES:

1. REQUIRED TO CIRCUIT LIGHT FIXTURE(S) AND LIGHTING CONTROLS TO EXISTING SCRAMBLE LIGHTING CIRCUIT. FIELD DETERMINE EXACT CONDITIONS.

3. FURNISH AND INSTALL ALL CONDUIT AND WIRING AS REQUIRED TO CIRCUIT LIGHT FIXTURE(S) AND LIGHTING CONTROLS TO EXISTING RESTROOM/SHOWER LIGHTING CIRCUIT. FIELD DETERMINE EXACT CONDITIONS.

4. FURNISH AND INSTALL ALL CONDUIT AND WIRING AS REQUIRED TO CIRCUIT LIGHT FIXTURE(S) AND LIGHTING CONTROLS TO EXISTING RESTROOM LIGHTING CIRCUIT. FIELD DETERMINE EXACT CONDITIONS.

5. DEMOLITION PLANS. FIELD FIXTURES.

CONTRACTOR TO ONE FOR ONE REPLACE AND RECONNECT WITH DEMOLITION PLANS. FIELD FIXTURES.
CONTRACTOR TO ONE FOR ONE REPLACE AND RECONNECT WITH NEW LED LIGHT FIXTURES WITHIN AREA INDICATED, IN PLACE OF THE FLUORESCENT LIGHT FIXTURES SHOWN ON THE DEMOLITION PLANS. FIELD DETERMINE EXACT LOCATION OF FIXTURES.

1. REFER TO SHEET E100A FOR TYPICAL LIGHTING GENERAL NOTES APPLICABLE TO THE ENTIRE PROJECT.

2. BASE BID SHALL INCLUDE ONE FOR ONE REPLACE AND RECONNECT WITH NEW LED LIGHT FIXTURES WITHIN AREA INDICATED, IN PLACE OF THE FLUORESCENT LIGHT FIXTURES SHOWN ON THE DEMOLITION PLANS FOR THIS FIXTURES (10 TOTAL) SHALL BE TYPE "RS2".

3. BASE BID SHALL INCLUDE ONE FOR ONE REPLACE AND RECONNECT WITH NEW LED LIGHT FIXTURES WITHIN AREA INDICATED, IN PLACE OF THE FLUORESCENT LIGHT FIXTURES SHOWN ON THE DEMOLITION PLANS FOR THIS FIXTURES (10 TOTAL) SHALL BE TYPE "RS2".

4. BASE BID SHALL INCLUDE ONE FOR ONE REPLACE AND RECONNECT WITH NEW LED LIGHT FIXTURES WITHIN AREA INDICATED, IN PLACE OF THE FLUORESCENT LIGHT FIXTURES SHOWN ON THE DEMOLITION PLANS FOR THIS FIXTURES (10 TOTAL) SHALL BE TYPE "RS2".

ENTRY SIGNAGE. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION.

DAYLIGHT ZONE

AUDITORIUM

MEZZANINE

ADJACENT MEZZANINE. REFER TO SHEET E102A.

FIELD DETERMINE EXISTING ROOM LIGHTING VOLTAGE AND EXISTING CIRCUITING. IF REQUIRED, MAINTAIN CIRCUIT CONTINUITY AND CIRCUIT WITH CORRIDOR LIGHTING CIRCUIT AS SHOWN. EXISTING LIGHTING AND CONTROL TO REMAIN WITHIN RESTROOM. STAIR LANDING FIXTURE SHALL BE UNSWITCHED NIGHT LIGHT.

ADJACENT MEZZANINE. REFER TO SHEET E102A.
### Low Voltage Occupancy Sensor Wiring Diagram

#### Description:
- **Dimmable Zone Switches:**
  - Zone Designations are denoted for each switch when different zones are controlled from different switches within the same room.

- **OCCUPANCY SENSOR(S):**
  - Automatic Daylight Harvesting PhotoCell(s), When Applicable:
    - On and Off Control for each zone, with separate engraved buttons for On and Off.
    - Denote each zone and function with symbol or engraving.
    - Zones are denoted on each associated light fixture when multiple zones are present within the room, using lower case letters as follows: "a", "b", etc.

- **Power Packs/Controllers:**
  - Local devices in accessible locations as required to achieve control method indicated.

#### Notes:
- **Note 1:** Where noted above, scheduled building hours of operation are as follows: 6:30 AM to 6:30 PM.
- **Note 2:** All wall mounted lighting controls must have matching finishes to those listed in Specification Section 262726 - Wiring Devices.
- **Note 3:** Separate devices and enclosures as required to separate circuit the light fixtures in each zone which are noted to be connected to egress circuits.
- **Note 4:** Modify locations of ceiling mounted occupancy sensors as required so that no occupancy sensor is within 10 feet of a light fixture.
- **Note 5:** Device shall connect to utility power circuit during normal operation, and switch to generator branch during a loss of utility power circuit.
- **Note 6:** Contractors to modify photo-cell locations as required based on submitted products.
- **Note 7:** Set time delays for shut-off at 20 minutes.
- **Note 8:** Contractors to modify photo-cell locations as required based on submitted products.

#### Electrical - Schedules & Details

### Light Fixture Schedule

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Lighting</th>
<th>Lamp</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>LED Bulb - 18W</td>
<td>Dual</td>
<td>120V</td>
<td>60W</td>
<td>T-4</td>
</tr>
<tr>
<td>M2</td>
<td>LED Bulb - 24W</td>
<td>Dual</td>
<td>120V</td>
<td>60W</td>
<td>T-4</td>
</tr>
<tr>
<td>M3</td>
<td>LED Bulb - 36W</td>
<td>Dual</td>
<td>120V</td>
<td>60W</td>
<td>T-4</td>
</tr>
</tbody>
</table>

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### Replacement Light Fixture Schedule

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Lighting</th>
<th>Lamp</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>LED Bulb - 18W</td>
<td>Dual</td>
<td>120V</td>
<td>60W</td>
<td>T-4</td>
</tr>
<tr>
<td>R2</td>
<td>LED Bulb - 24W</td>
<td>Dual</td>
<td>120V</td>
<td>60W</td>
<td>T-4</td>
</tr>
<tr>
<td>R3</td>
<td>LED Bulb - 36W</td>
<td>Dual</td>
<td>120V</td>
<td>60W</td>
<td>T-4</td>
</tr>
</tbody>
</table>

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### Digital Room Controller Wiring Diagram

#### Components:
- **WALL MOUNTED SWITCH/VACANCY SENSOR**
- **WALL MOUNTED LIGHTING SYSTEM OCCUPANCY SENSOR**
- **CEILING MOUNTED LIGHTING SYSTEM OCCUPANCY SENSOR**
- **POWER PACK**
- **RELAY UNIT**
- **DIGITAL SENSOR(S)**
- **OCCUPANCY SENSORS**

#### Control Methods:
- Zone Designations are denoted for each switch when different zones are controlled from different switches within the same room.

#### Symbols:
- **+** for ON
- **-** for OFF

---

### Additional Information
- **Contact Information**
- **Project Number**
- **Building Information**
- **Certification Information**

---

**Please refer to the image for detailed architectural drawings and specifications.**
Sheet Notes:

1. Refer to Sheet E200A for typical electrical raceway general notes applicable to the entire project.

Typical Fire Alarm General Notes:

1. Refer to Sheet E200A for typical fire alarm general notes applicable to the entire project.

TYPICAL ELECTRICAL RACEWAY GENERAL NOTES:

1. Refer to Sheet E200A for typical electrical raceway general notes applicable to the entire project.

TYPICAL FIRE ALARM GENERAL NOTES:

2. Area A

3. Set Candela settings on all strobes per the requirements of NFPA 72.

4. Furnish and install duct mounted smoke detectors at each RTU return air inlet and FPVAV terminal 2000 CFM operation. Verify locations and quantities with HVAC floor plans and equipment schedules, as well as field investigation of all existing HVAC equipment.

Install nylon bushing at the end of all low voltage conduits and sleeves.

All empty low voltage conduits to be installed with pull strings.

Provide one (1) data drop to fire alarm control panel, BAS controller from. Coordinate BAS controller location with mechanical contractor prior to pulling new cabling to terminate to the new IDF on level (Refer to LV102A). Field determine exact conditions.

These spaces are existing, with no additional work.

Plan Notes:

Low voltage scope for area within boundary includes new cabling to terminate to the new IDF on level 2 (Refer to LV102A). Field determine exact conditions.

The intent is to not disturb finishes and minimize surface raceway.
SHEET KEYNOTE LEGEND

TYPICAL FIRE ALARM GENERAL NOTES:
1. REFER TO SHEET LV100A FOR TYPICAL FIRE ALARM GENERAL NOTES APPLICABLE TO THE ENTIRE PROJECT.

TYPICAL LOW VOLTAGE GENERAL NOTES:
1. REFER TO SHEET LV100A FOR TYPICAL LOW VOLTAGE GENERAL NOTES APPLICABLE TO THE ENTIRE PROJECT.

UTILIZE/MAINTAIN EXISTING DATA CABLE(S) FOR SERVING EXISTING VIDEO CAMERA. COORDINATE WITH DISTRICT COMMUNICATIONS REPRESENTATIVE.

PROVIDE INTEGRATION OF EXISTING KITCHEN HOOD(S) WITH FIRE ALARM SYSTEM. FIELD DETERMINE EXACT REQUIREMENTS.

PROVIDE TWO 1-1/2" CONDUIT SLEEVES BETWEEN AV CLOSET PROVIDE SMOKE AND HEAT DETECTORS IN ELEVATOR PIT AND DETECTORS WITH ELEVATOR CONTROLLER AND DISCONNECTS AS REQUIRED BY CODE. COORDINATE WITH ELEVATOR AND UPGRADE FOR THE MODERIZATION TO THE EXISTING ELEVATOR.

PROVIDE 2-GANG BACK BOX WITH BLANK PLATE AT 18" AFF, WITH TWO 1" CONDUITS UP IN WALL AND STUBBED INTO AV PANEL.

Please consider the environment before printing this.
1. REFER TO SHEET E200A FOR TYPICAL ELECTRICAL RACEWAY GENERAL NOTES APPLICABLE TO THE ENTIRE PROJECT.

2. REFER TO SHEET LV100A FOR TYPICAL FIRE ALARM GENERAL NOTES APPLICABLE TO THE ENTIRE PROJECT.

3. REFER TO SHEET LV100A FOR TYPICAL LOW VOLTAGE GENERAL NOTES APPLICABLE TO THE ENTIRE PROJECT.

SMOKE DETECTOR FOR ELEVATOR RECALL. MAKE CONNECTIONS TO ELEVATOR CONTROLLER AS REQUIRED.

SMOKE AND HEAT DETECTOR LOCATED AT THE TOP OF THE ELEVATOR SHAFT. PROVIDE ADDITIONAL HEAT DETECTORS CONTROLLER AND DISCONNECTS AS REQUIRED BY CODE. COORDINATE WITH ELEVATOR MANUFACTURER / CONTRACTOR ALL FIRE ALARM REQUIREMENTS AND UPGRADE FOR THE MODERNIZATION TO THE EXISTING ELEVATOR.

DUCT MOUNTED SMOKE DETECTOR FOR SHUTDOWN OF AIR HANDLING UNIT, LOCATE ONE IN SUPPLY AIR DUCT AND ONE IN THE RETURN AIR DUCT (WHEN APPLICABLE) CONNECTIONS. MAKE CONNECTIONS TO UNIT AS REQUIRED FOR INDIVIDUAL UNIT SHUTDOWN BY FIRE ALARM SYSTEM. PROVIDE ALL ASSOCIATED MODULES AND CONNECTIONS REQUIRED FOR CORRECT OPERATION AS NOTED IN THE SPECIFICATIONS. FIELD VERIFY EXACT LOCATION.

- Phase 2 Scope of Work (Not included in this Bid Package)

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**Notes:**
- Please consider the environment before printing this.