

INTERNATIONAI 1501 LBJ FREEWAY, SUITE 650 DALLAS, TX 75234



181261

02-05-2021

5B. Gypsum Board* - (Not Shown) - As an alternate to Item 5 when used as the base layer on one or both sides of

wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or $\frac{3}{4}$ in. may be used as alternate to all 5/8 in. or $\frac{3}{4}$ in. shown in Item 5, Wallboard

Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or

tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides

of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs

5C. Gypsum Board* — (For Use With Item 2B) Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to

be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC

starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time.

5D. Gypsum Board* - (As an alternate to Item 5) - 5/8 in. thick, 48 in. wide, applied vertically or horizontally.

5E. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of

secured to study with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8

5F. Gypsum Board* - (As an alternate to Item 5) - For use with Items 1E and 2E and limited to 1 Hour Rating only,

Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over

studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.

wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be

used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard

All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.

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joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head selfdrilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. Batts and Blankets* - (Required as indicated under Item 5) - Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

4A. Batts and Blankets* - (Optional) - Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets** (**BKNV or BZJZ**) **Categories** for names of Classified companies.

4B. Batts and Blankets* - For use with Item 5K. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

5. Gypsum Board* — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC - 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO - 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL ZAWAWI DRYWALL L L C SFZ - 1/2 in. Type C; 5/8 in. Types C, SCX

99.9% meeting the Federal specification QQ-L-201f, Grade "C".

Rating, Hr

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

USG MEXICO S A DE C V - 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, Steel Framing Members*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board*** — (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6. CGC INC - Type SHX.

optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in.

placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head

steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max

0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of

5K. Gypsum Board* — (Not Shown) — (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled

Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems)

Gypsum Board Protection on Each Side of Wall

6. Fasteners - (Not Shown) - For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to

in, long for 3/4 in, thick panels, spaced 8 in, OC when panels are applied horizontally, or 8 in, OC along vertical and

for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in.

thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

studs (Item 2) or furring channels (Item 7). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4

bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer- 1 in. long

long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in.

Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in.

long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8

6A. Fasteners — (Not Shown) — For use with Item 5K- Type S or S-12 steel screws used to attach panels to studs or furring channels (Item 7). Single layer systems: 1 in. long screws, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically.

Two layer systems: First layer- 1 in. long screws, spaced 16 in. OC. Second layer- 1-5/8 in. screws, spaced 8 in. OC

with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long screws, spaced 24 in. OC. Second

layer- 1-5/8 in. long screws, spaced 24 in. OC. Third layer- 2-5/8 in. long screws, spaced 8 in. OC. Screws offset min 6

in. from layer below. Four-layer systems: First layer- 1 in. long screws, spaced 24 in. OC. Second layer- 1-5/8 in. long

screws, spaced 24 in. OC. Third layer- 2-5/8 in. long screws, spaced 24 in. OC. Fourth layer- 3 in. long screws, spaced

7. Furring Channels - (Optional, Not Shown, for single or double layer systems) - Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to

7A. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — As an

a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by

7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for

b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2).

Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to study with No. 8 x 1-

1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to study with No. $8\times9/16$ in. minimum self-drilling, S-12 steel screw

through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips

for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use

PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A and 5E.

alternate to Item 7, furring channels and Steel Framing Members as described below

with 2-23/32 in. wide furring channels.

No. of

of Panel

layer, 5/8 in. thick

lavers, 5/8 in. thick

layers, 5/8 in. thick

layers, 5/8 in. thick

Thkns of

(Item 4B)

3-1/2 in.

Optional

Optional

square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud

cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity.

need not be staggered. The number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Items 2 through 20

3-5/8

1-5/8

1-5/8

1-5/8

in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

UNITED STATES GYPSUM CO - 5/8 in. thick Type ULIX

8 in. OC. Screws offset min 6 in. from layer below.

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UNITED STATES GYPSUM CO — Type FRX-G, SHX.

RAY-BAR ENGINEERING CORP — Type RB-LBG

UNITED STATES GYPSUM CO - Type SCX, SGX.

USG MEXICO S A DE C V — Type SCX.

UNITED STATES GYPSUM CO — Type USGX.

in. OC at perimeter and 12 in. OC in the field

USG MEXICO S A DE C V ─ Type USGX.

USG BORAL ZAWAWI DRYWALL L L C SFZ — Type SCX

Secured as described in Item 6. For use with Items 1 and 2 only.

NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

UNITED STATES GYPSUM CO -5/8 in. thick Type SCX, SGX.

CGC INC — Type SCX.

CGC INC - Type USGX.

USG MEXICO S A DE C V − Type SHX.

7B. Framing Members* - (Optional, Not Shown) - As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below

> a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A and 5E.

b. Steel Framing Members* - Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.

KINETICS NOISE CONTROL INC — Type Isomax

7C. Framing Members* - (Not Shown) - (Optional on one or both sides, not shown, for single or double layer systems) - As an alternate to Item 7, furring channels and Steel Framing Members as described below:

a. Furring Channels - Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and

b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted

PLITEQ INC — Type GENIECLIP

7D. Steel Framing Members* — (Optional, Not Shown) — Furring channels and resilient sound isolation clip as

a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in, and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 4. Side joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.

b. Steel Framing Members* — Resilient sound isolation clip used to attach furring channels (Item 7Da) to studs. Clips spaced 24 in. OC., and secured to studs with No. 10 x 2-1/2 in.

coarse drywall screw through the center hole. Furring channels are friction fitted into clips. STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

8. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. Siding, Brick or Stucco — (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. Caulking and Sealants* - (Optional, Not Shown) - A bead of acoustical sealant applied around the partition

UNITED STATES GYPSUM CO — Type AS

11. Lead Batten Strips — (Not Shown, For Use With Item 5B) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in, long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind vertical joints.

11A. Lead Batten Strips — (Not Shown, For Use With Item 5H) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.

12. Lead Discs or Tabs — (Not Shown, For Use With Item 5B) — Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards

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USG BORAL ZAWAWI DRYWALL L C SFZ — 5/8 in. thick Type SCX

5G. Gypsum Board* - (As an alternate to Item 5) - For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC - 1/2 in. thick Type C, IP-X2 or IPC-AR;, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO - 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, , FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL ZAWAWI DRYWALL L C SFZ - 1/2 in. Type C; 5/8 in. Types C, SCX

USG MEXICO S A DE C V - 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. Gypsum Board* - (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).

MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5I. Gypsum Board* — (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5. CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX

USG MEXICO S A DE C V ─ Type ULX

5J. Gypsum Board* - (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batter strips required behind vertical joints of lead backed gypsum wallboard and

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(Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

12A, Lead Discs — (Not Shown, for use with Item 5H) Max 5/16 in, diam by max 0.140 in, thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

13. Lead Batten Strips - (Not Shown, For Use With Item 5E) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5E) and optional at remaining stud locations.

14. Lead Tabs - (Not Shown, For Use With Item 5E) 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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NTERNATIONA 1501 LBJ FREEWAY.

SUITE 650 **DALLAS, TX 75234**



AR REPLAC EARHART SBORO, AF

DE

Project Number: 181261

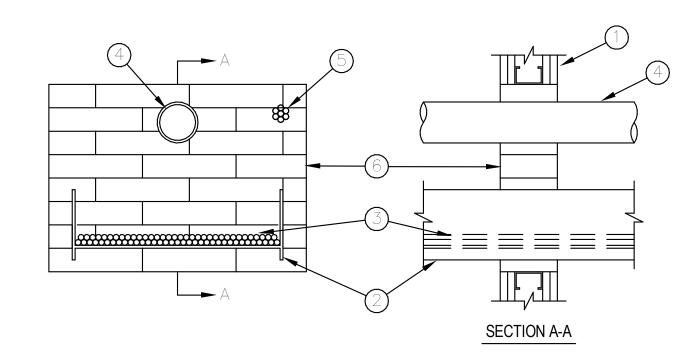
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6/11

10/11

MULTIPLE TYPES TROUGH 1 & 2 HR GYP FIRE BARRIER

UL Design No. W-L-8013 F RATING - 1 & 2 HOUR (SEE ITEM 1) OR APPROVED EQUAL



SYSTEM TESTED WITH A PRESSURE DIFFERENTIAL OF 2.5 PA BETWEEN THE EXPOSED AND THE UNEXPOSED SURFACES WITH THE HIGHER PRESSURE ON THE EXPOSED SIDE.

1. WALL ASSEMBLY — THE 1 OR 2 HR FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300, U400, V400 OR W400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 IN. (51 MM) BY 4 IN. (102 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 2-1/2 IN. (64 MM) WIDE AND SPACED MAX 24 IN. (610 MM) OC. ADDITIONAL STUDS INSTALLED TO COMPLETELY FRAME THE OPENING.

B. GYPSUM BOARD* — 5/8 IN. (16 MM) THICK, 4 FT (1219 MM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX AREA OF OPENING IS 352 SQ IN. (2271 SQ CM) WITH MAX DIMENSION OF 22 IN. (559 MM) WIDE

THE HOURLY F AND FH RATINGS OF THE FIRESTOP SYSTEM ARE EQUAL TO THE HOURLY FIRE RATING OF THE WALL

2. CABLE TRAY* — MAX 18 IN. (457 MM) WIDE BY MAX 6 IN. (152 MM) DEEP OPEN-LADDER OR SOLID-BACK CABLE TRAY WITH CHANNEL-SHAPED SIDE RAILS FORMED OF 0.065 IN. (1.65 MM) THICK ALUMINUM OR 0.060 IN. (1.52 MM) THICK STEEL AND WITH 1-1/2 IN. (38 MM) WIDE BY 1 IN. (25 MM) CHANNEL SHAPE RUNGS SPACED 9 IN. (229 MM) OC OR A 0.029 IN. (0.74 MM) THICK STEEL SOLID BACK, RESPECTIVELY. ONE CABLE TRAY TO BE INSTALLED IN THE OPENING. THE MAX ANNULAR SPACE BETWEEN THE CABLE TRAY AND THE PERIPHERY OF THE OPENING SHALL BE MIN 1 IN. (25 MM) TO MAX 7 IN. (178 MM) CABLE TRAY TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

3. CABLES — AGGREGATE CROSS-SECTIONAL AREA OF CABLES IN CABLE TRAY TO BE MAX 30 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CABLE TRAY. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLES MAY BE USED:

A. 7/C NO. 12 AWG WITH POLYVINYL CHLORIDE (PVC) INSULATION AND PVC JACKET.

B. 100 PAIR - NO. 24 AWG CABLE WITH PVC INSULATION AND JACKET. C. 1/C, 750 KCMIL (OR SMALLER) WITH PVC INSULATION AND JACKET.

4. THROUGH-PENETRANTS — ONE OR MORE PIPE OR TUBE TO BE INSTALLED WITHIN THE OPENING. THE TOTAL NUMBER OF THROUGH-PENETRANTS IS DEPENDENT ON THE SIZE OF THE OPENING AND TYPES AND SIZES OF THE PENETRANTS. ANY COMBINATION OF THE PENETRANTS DESCRIBED BELOW MAY BE USED PROVIDED THAT THE FOLLOWING PARAMETERS RELATIVE TO THE ANNULAR SPACES AND THE SPACINGS BETWEEN THE PIPES ARE MAINTAINED. THE SPACE BETWEEN THE PIPE OR TUBE AND THE PERIPHERY OF THE OPENING SHALL BE MIN 1-1/2 IN. (38 MM) TO MAX 9-1/4 IN. (235 MM). PIPE OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NON-METALLIC OR METALLIC PIPES, OR TUBES MAY BE USED:

A. POLYVINYL CHLORIDE (PVC) PIPE — MAX 3 IN. (76 MM) DIAM SCHEDULE 40 SOLID CORE PVC PIPE (OR SMALLER) FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.

B. STEEL PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.

C. CONDUIT — NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR 6 IN. (152 MM) DIAM STEEL CONDUIT.

D. COPPER PIPE — NOM 4 IN. (102 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

E. COPPER TUBE — NOM 4 IN. (102 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE.

4A. PIPE COVERING — (NOT SHOWN) NOM 1-1/2 IN. (38 MM) THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF) (56KG/M3)
GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL
FASTENERS OR FACTORY APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SECURED WITH METAL FASTENERS OR WITH
BUTT TAPE SUPPLIED WITH THE PRODUCT.

SEE PIPE AND EQUIPMENT COVERING AND MATERIALS (BRGU) CATEGORY IN THE BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL

CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 MAY BE USED.

5. CABLES — MAX 1-1/2 IN. (38 MM) DIAM TIGHT BUNDLE OF CABLES INSTALLED WITHIN THE OPENING AND RIGIDLY SUPPORTED ON BOTH SURFACES OF WALL. THE SPACE BETWEEN THE CABLES AND PERIPHERY OF THE OPENING SHALL RANGE FROM 1-3/16 IN. (30.2 MM) MIN TO A MAX OF 1-1/2 IN. (38 MM). ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED:

A. 7/C NO. 12 AWG WITH POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET.

B. 25 PAIR — NO. 24 AWG CABLE WITH PVC INSULATION AND JACKET.

C. TYPE R GU/59 COAXIAL CABLE WITH PVC OUTER JACKET.

D. 24 FIBER OPTIC CABLE WITH PVC SUB UNIT AND OUTER JACKET.

6. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:

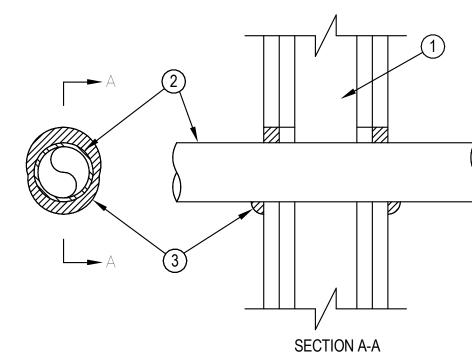
A. FILL, VOID OR CAVITY MATERIAL* — FIRE BLOCKS FOR WALLS INCORPORATING MAX 3-5/8 IN. (92 MM) STEEL STUDS OR MAX 2 (51 MM) BY 4 IN. (102 MM) WOOD STUDS, FIRE BLOCK INSTALLED WITH 5 IN. (127 MM) DIMENSION PROJECTING THROUGH AND CENTERED IN OPENING. FOR WALLS CONSTRUCTED OF LARGER STEEL OR WOOD STUDS, FIRE BLOCK INSTALLED WITH LONG DIMENSION PASSING THROUGH AND CENTERED IN OPENING. BLOCKS MAY OR MAY NOT BE CUT FLUSH WITH BOTH SURFACES OF WALL. WHEN MULTIPLE LAYERS OF GYPSUM BOARD ARE USED, BLOCKS MAY BE RECESSED 1/2 IN. (13 MM) FROM SURFACE OF WALL. BLOCKS TO BE FIRMLY PACKED IN OPENING. EITHER ONE OR A COMBINATION OF THE BLOCK TYPES SPECIFIED MAY BE USED.

B. FILL, VOID OR CAVITY MATERIAL* — SEALANT OR PUTTY - FILL MATERIAL TO BE FORCED INTO INTERSTICES OF CABLES, BETWEEN CABLES AND CABLE TRAYS, AROUND EACH PENETRANT AND WHERE OBVIOUS VOIDS ARE OBSERVED TO MAX EXTENT POSSIBLE ON BOTH SURFACES OF THE PENETRATION.

* INDICATES SUCH PRODUCTS SHALL BEAR THE UL OR CUL CERTIFICATION MARK FOR JURISDICTIONS EMPLOYING THE UL OR CUL CERTIFICATION (SUCH AS CANADA), RESPECTIVELY.

SINGLE NON-METALLIC THROUGH 1 & 2 HR GYP FIRE BARRIER

UL Design No. W-L-2244 F RATING - 1 & 2 HOUR (SEE ITEM 1) OR APPROVED EQUAL



1. WALL ASSEMBLY — THE 1 AND 2 HR FIRE RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400, V400 OR W400 SERIES WALL AND PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS — WALL FRAMING SHALL CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 2-1/2 IN. (64 MM) WIDE BY 1-3/8 IN. (35 MM) DEEP CHANNELS SPACED MAX 24 IN. (610 MM) OC.

B. GYPSUM BOARD* — THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 3 IN (76 MM)

THE HOURLY F AND T RATINGS OF THE FIRESTOP SYSTEM ARE EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

2. THROUGH PENETRANT — ONE NONMETALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (POINT CONTACT) TO A MAX 5/8 IN. . (16 MM). PIPE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES MAY BE USED:

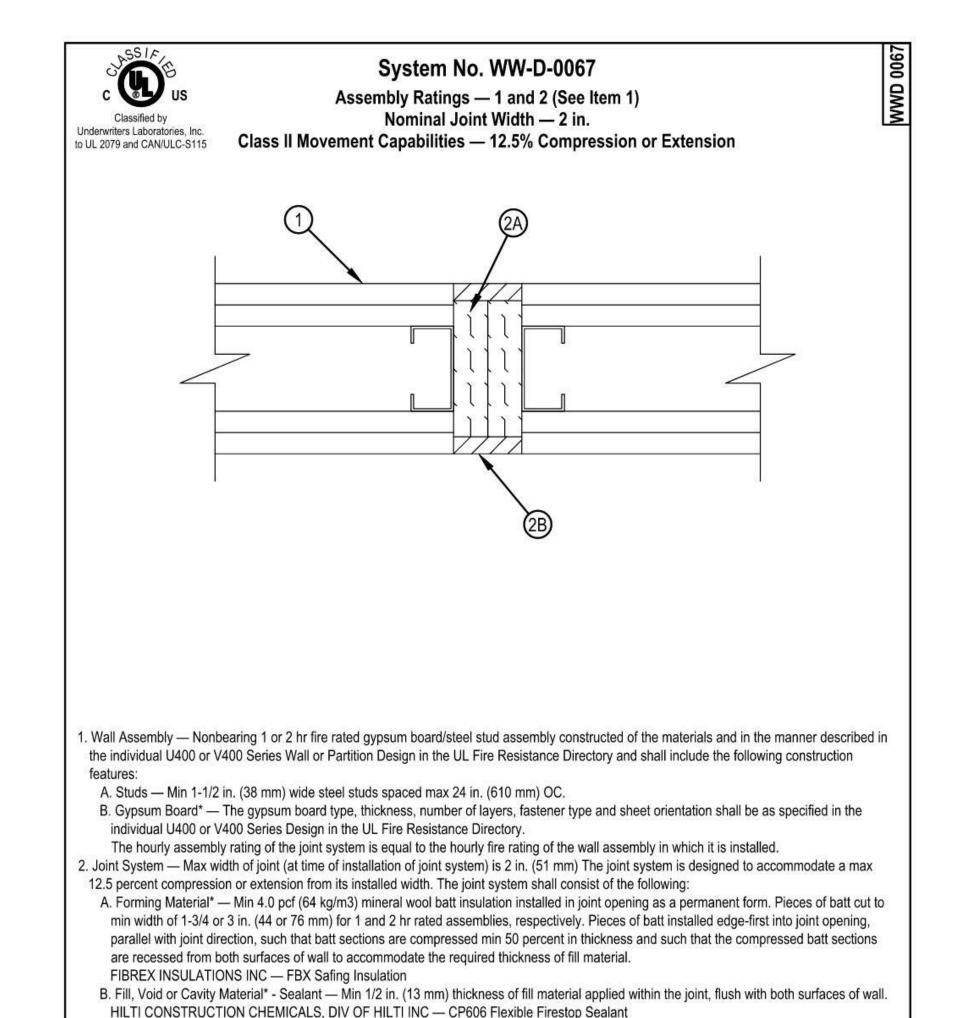
A. POLYVINYL CHLORIDE (PVC) PIPE — NOM 2 IN. (51 MM) DIAM (OR SMALLER) CELLULAR OR SOLID CORE SCHEDULE 40 (OR HEAVIER) PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS

B. CHLORINATED POLYVINYL CHLORIDE (CPVC) — NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR 13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.

3. FILL, VOID OR CAVITY MATERIAL* - SEALANT — MIN 5/8 IN. (16 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. AT POINT CONTACT LOCATION, A MIN 1/2 IN. (13 MM) DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED TO THE

WALL/PENETRANT INTERFACE ON BOTH SURFACES OF THE WALL.

* INDICATES SUCH PRODUCTS SHALL BEAR THE UL OR CUL CERTIFICATION MARK FOR JURISDICTIONS EMPLOYING THE UL OR CUL CERTIFICATION (SUCH AS CANADA), RESPECTIVELY.





*Bearing the UL Classification Mark

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Michael Baker NTERNATIONA 1501 LBJ FREEWAY, SUITE 650 DALLAS, TX 75234 HANGAR REPLACEMEN 3001 EARHART DRIVE JONESBORO, AR 72401 **DESIGNS** Project Number:

Project Number:

181261

Date:

02-05-2021

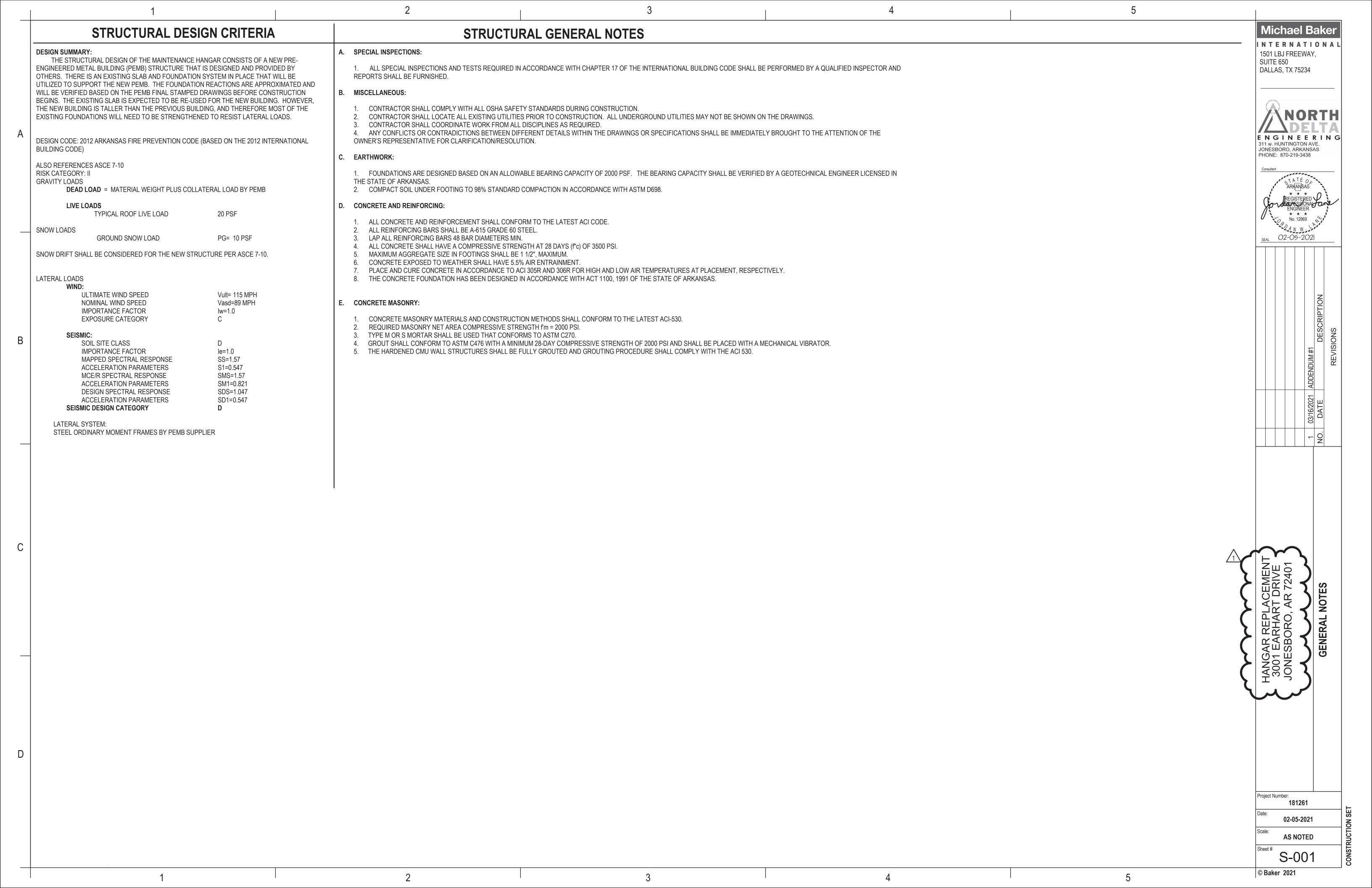
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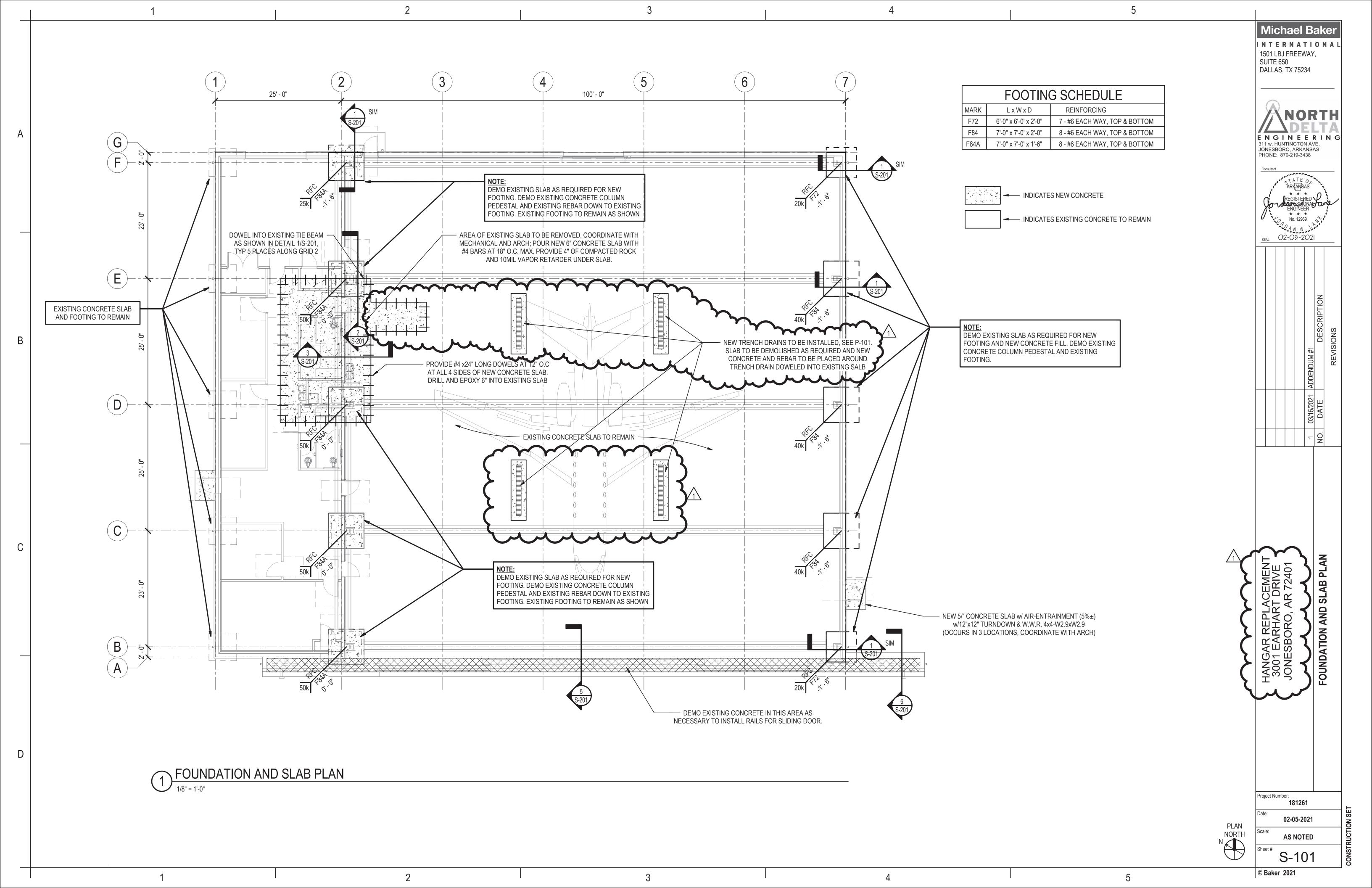
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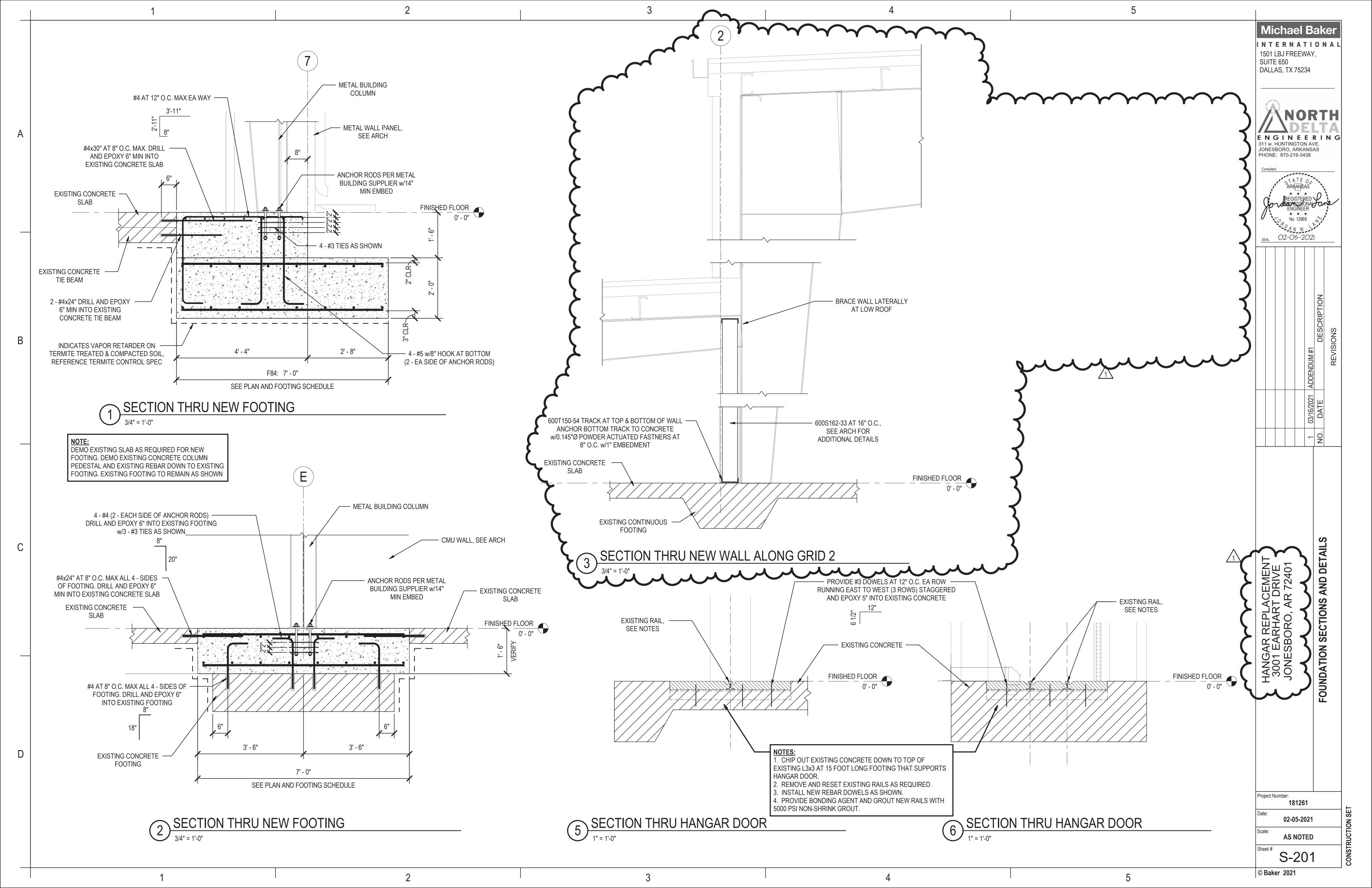
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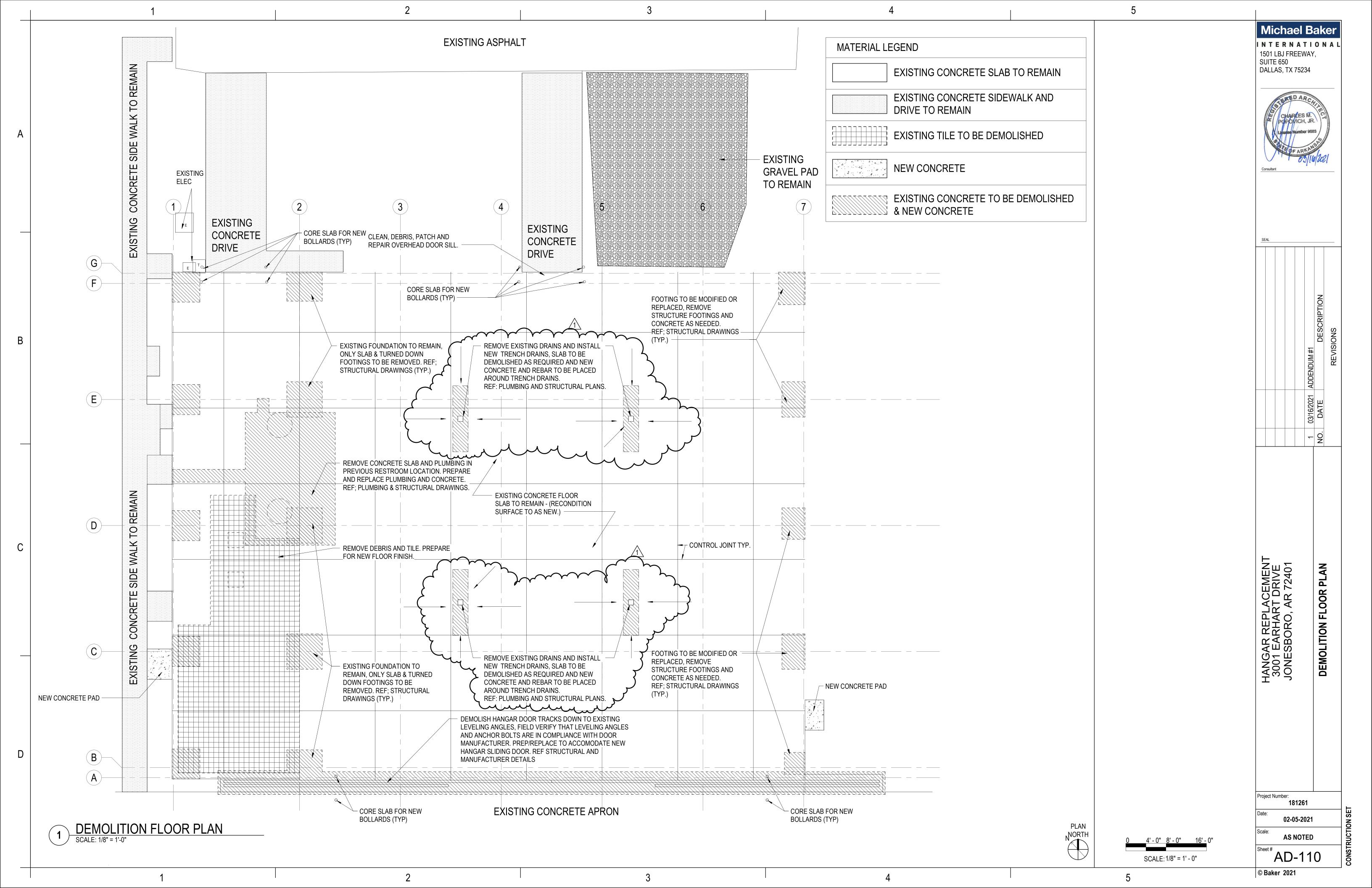
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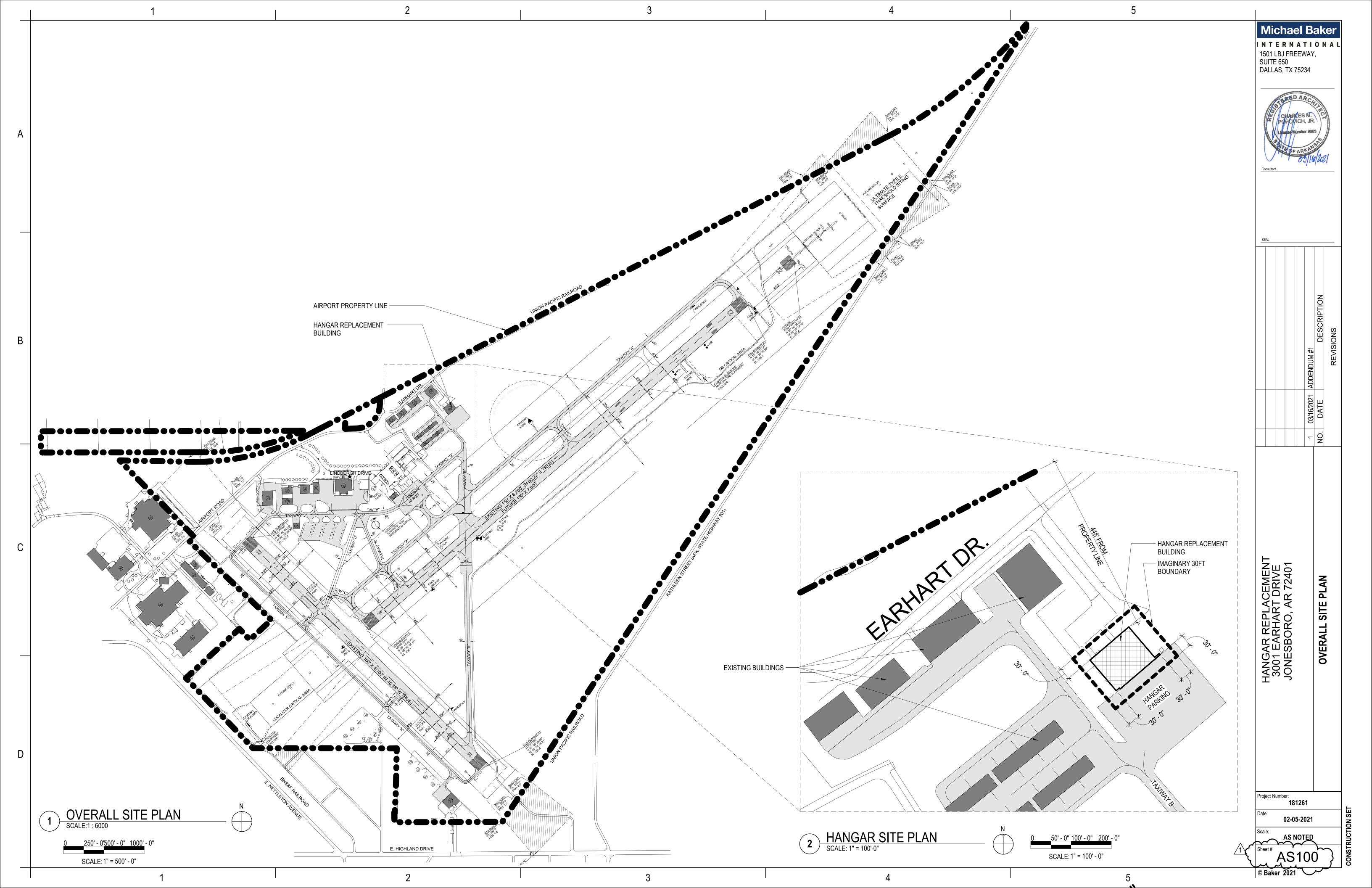
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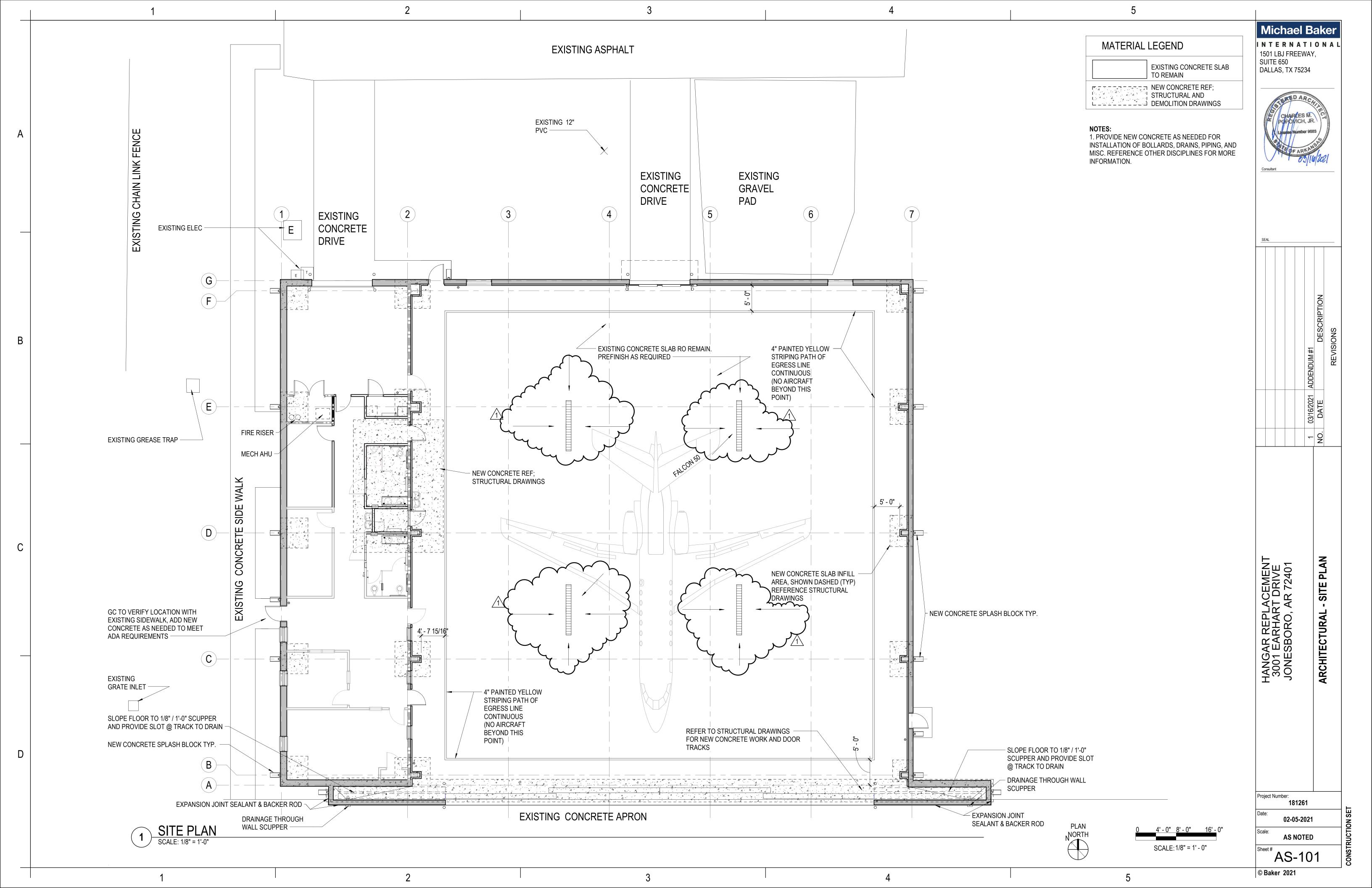


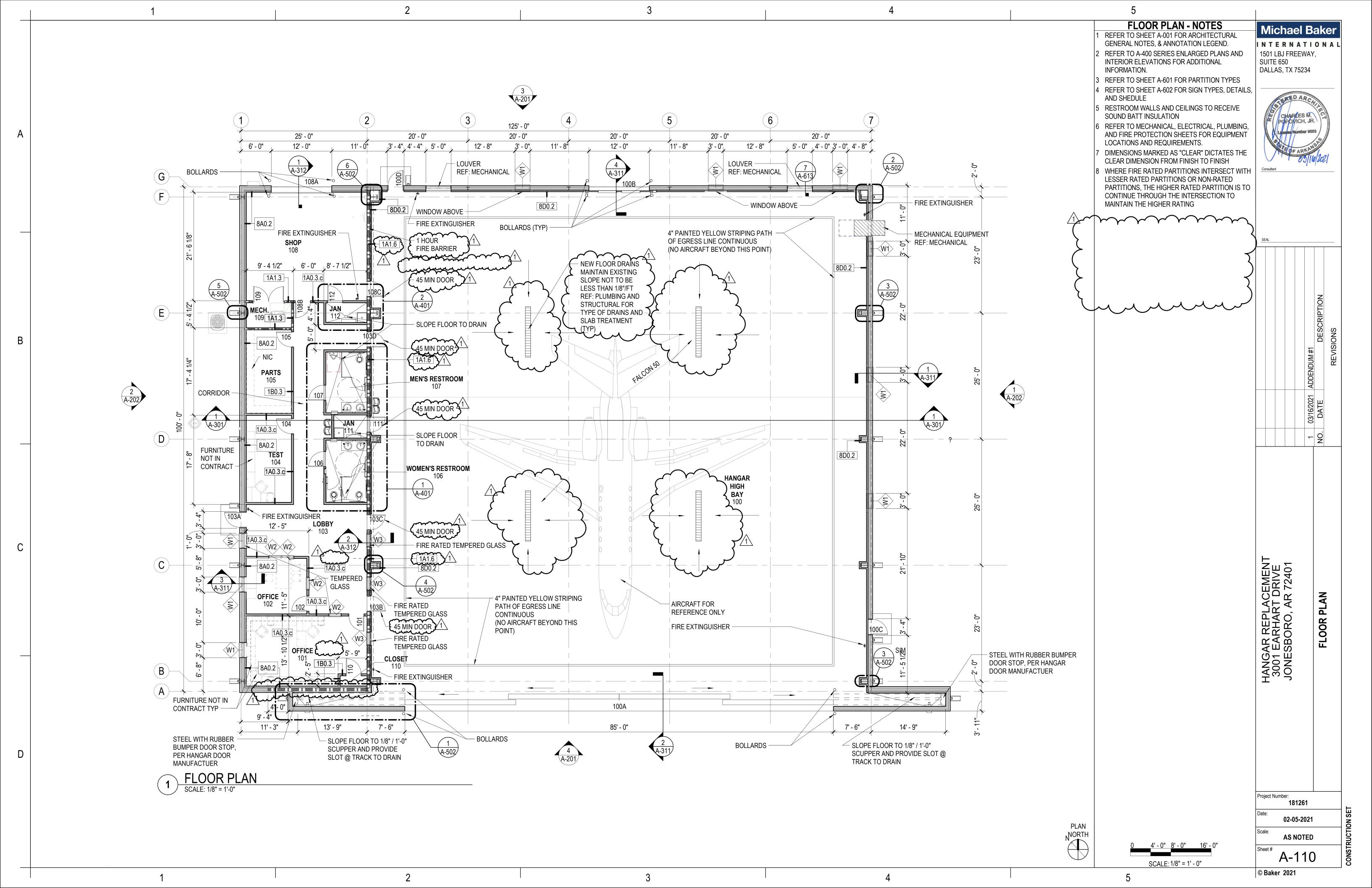


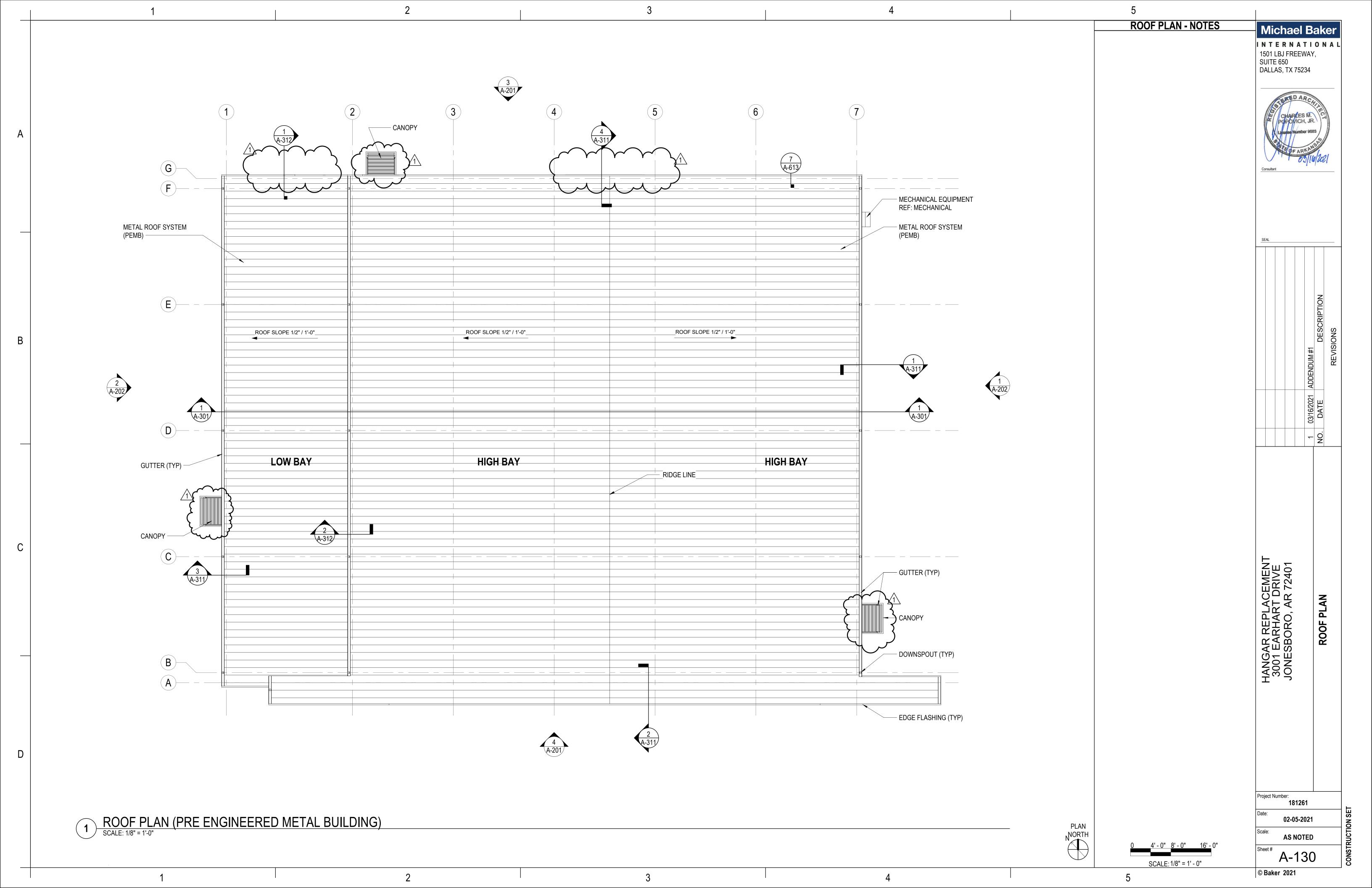


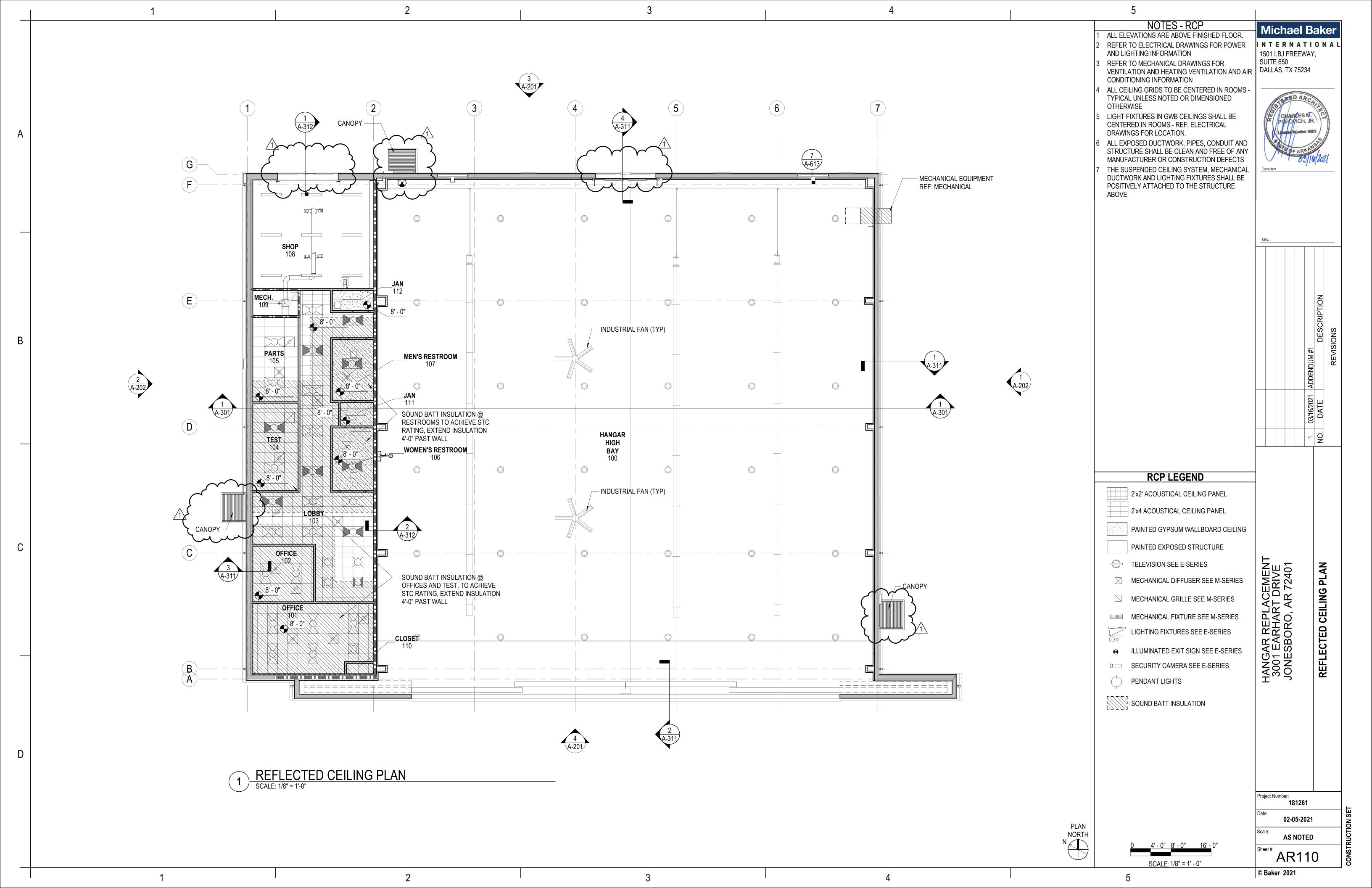


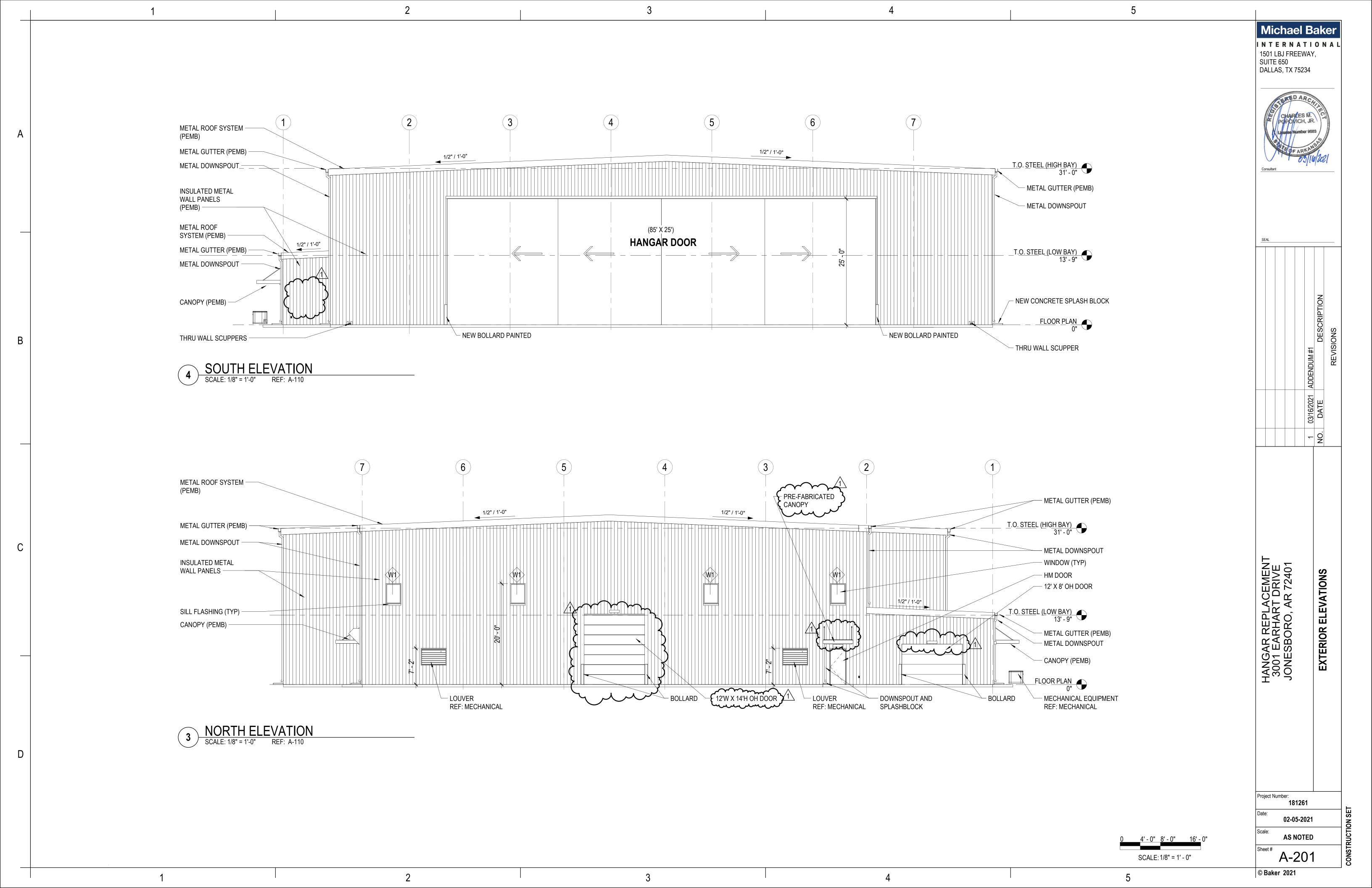


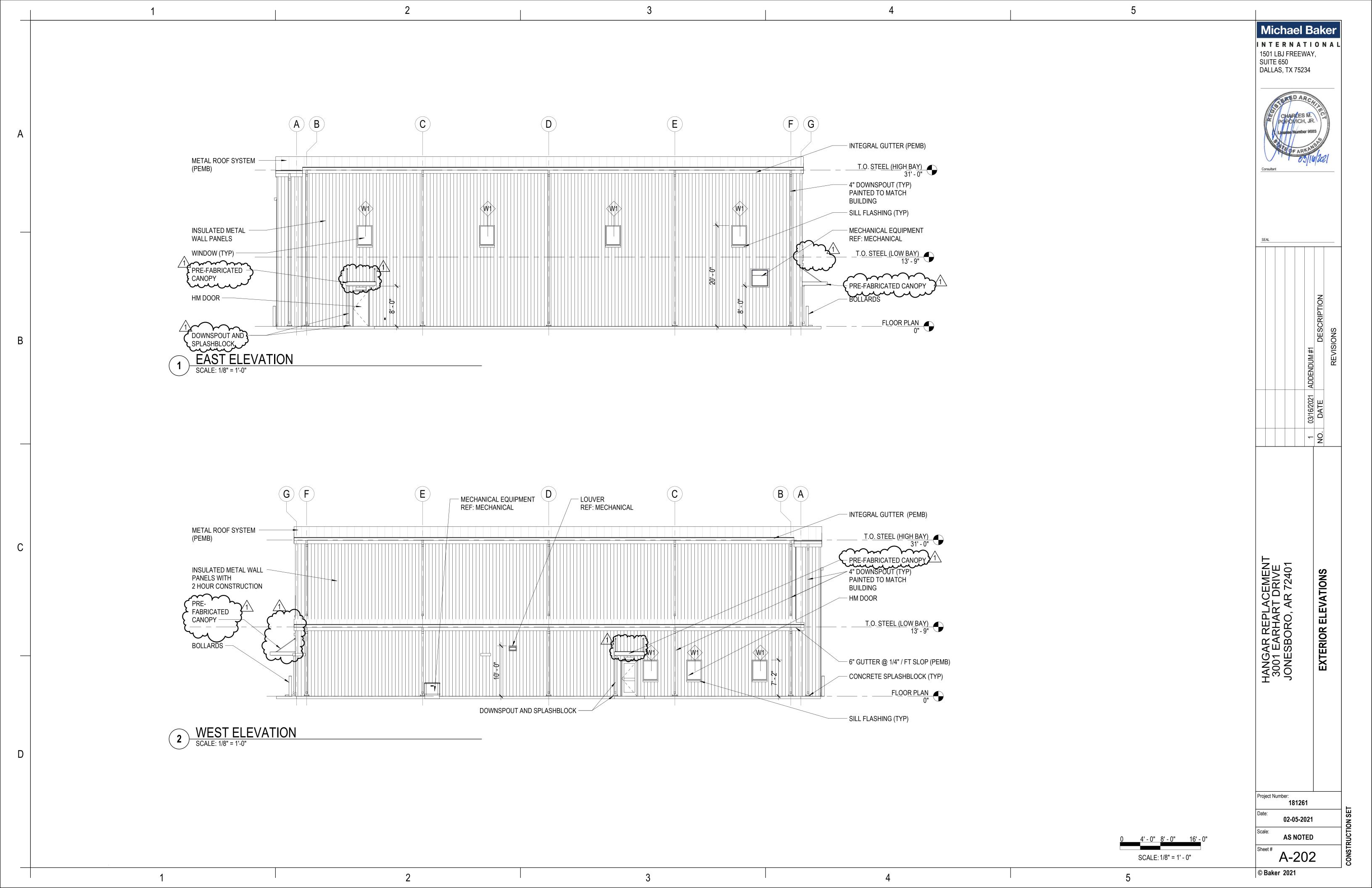


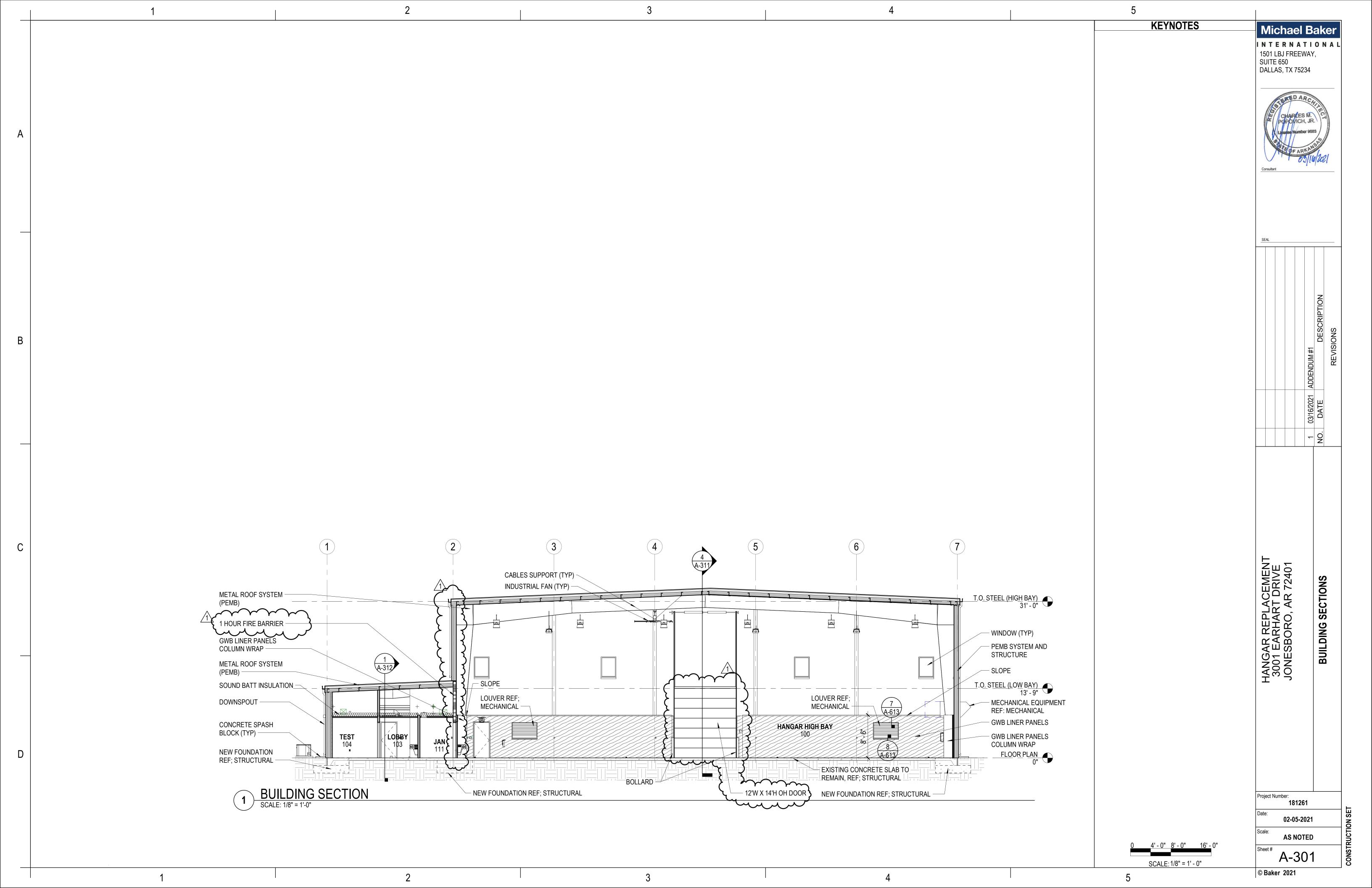


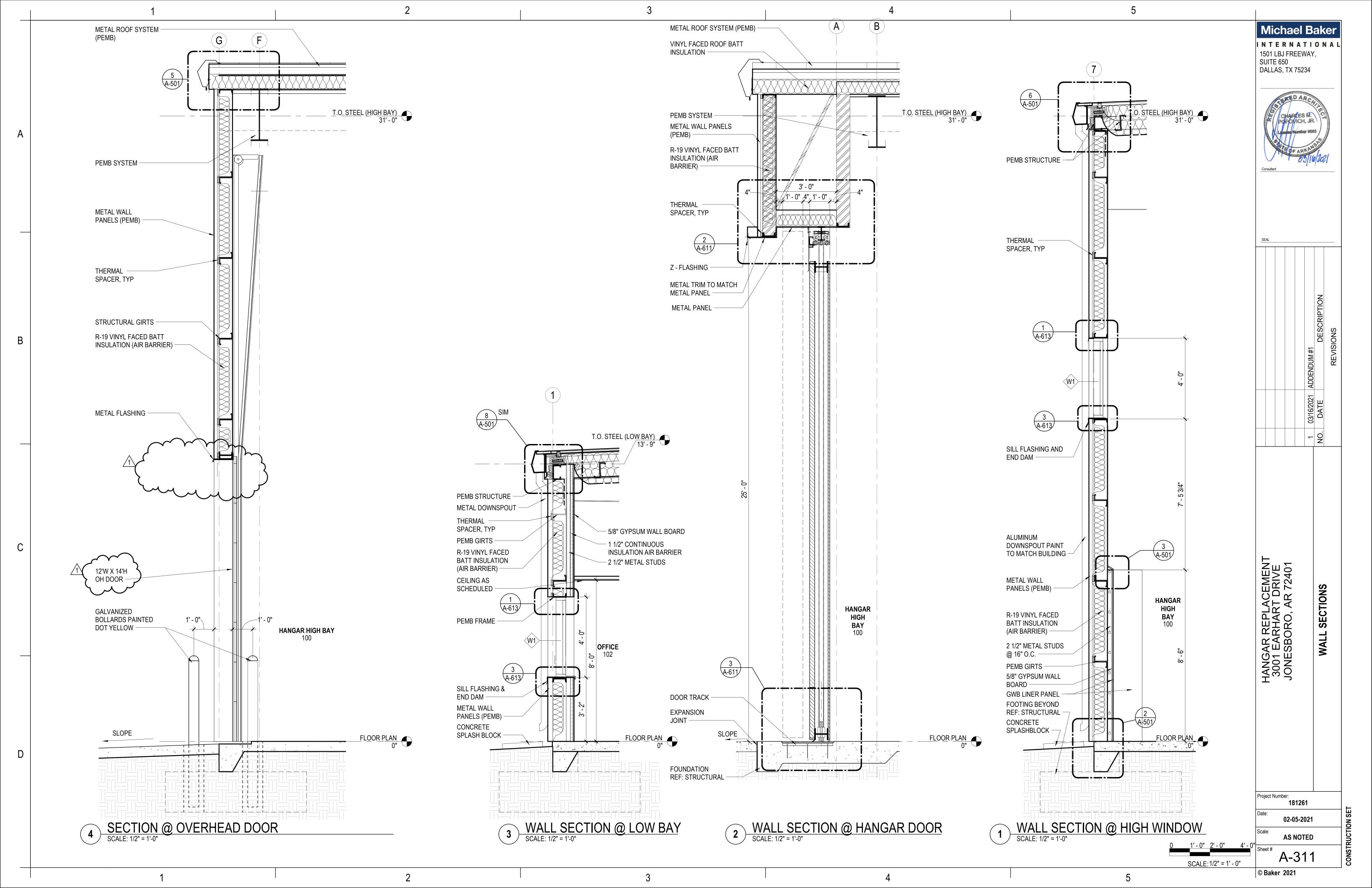


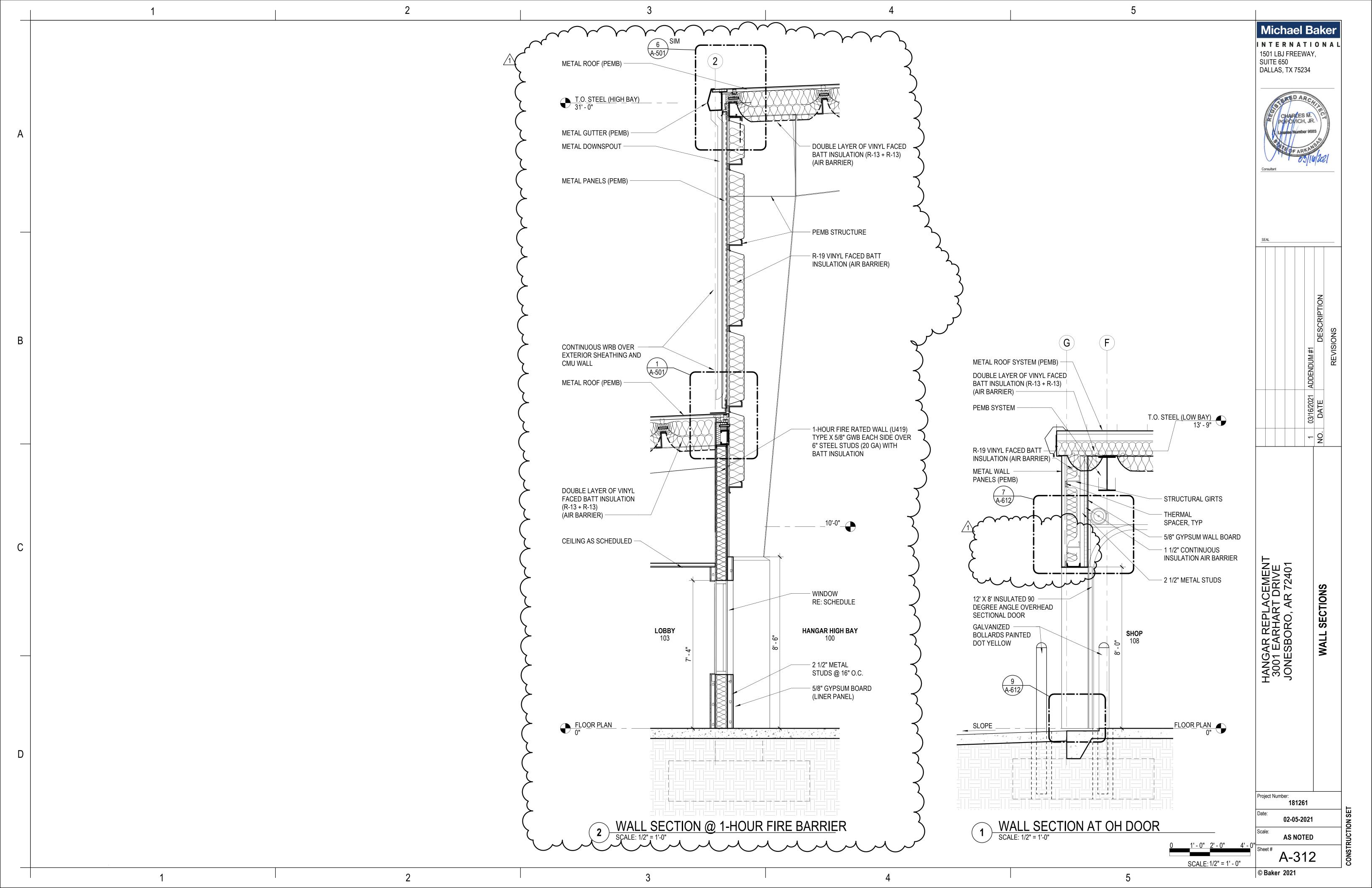


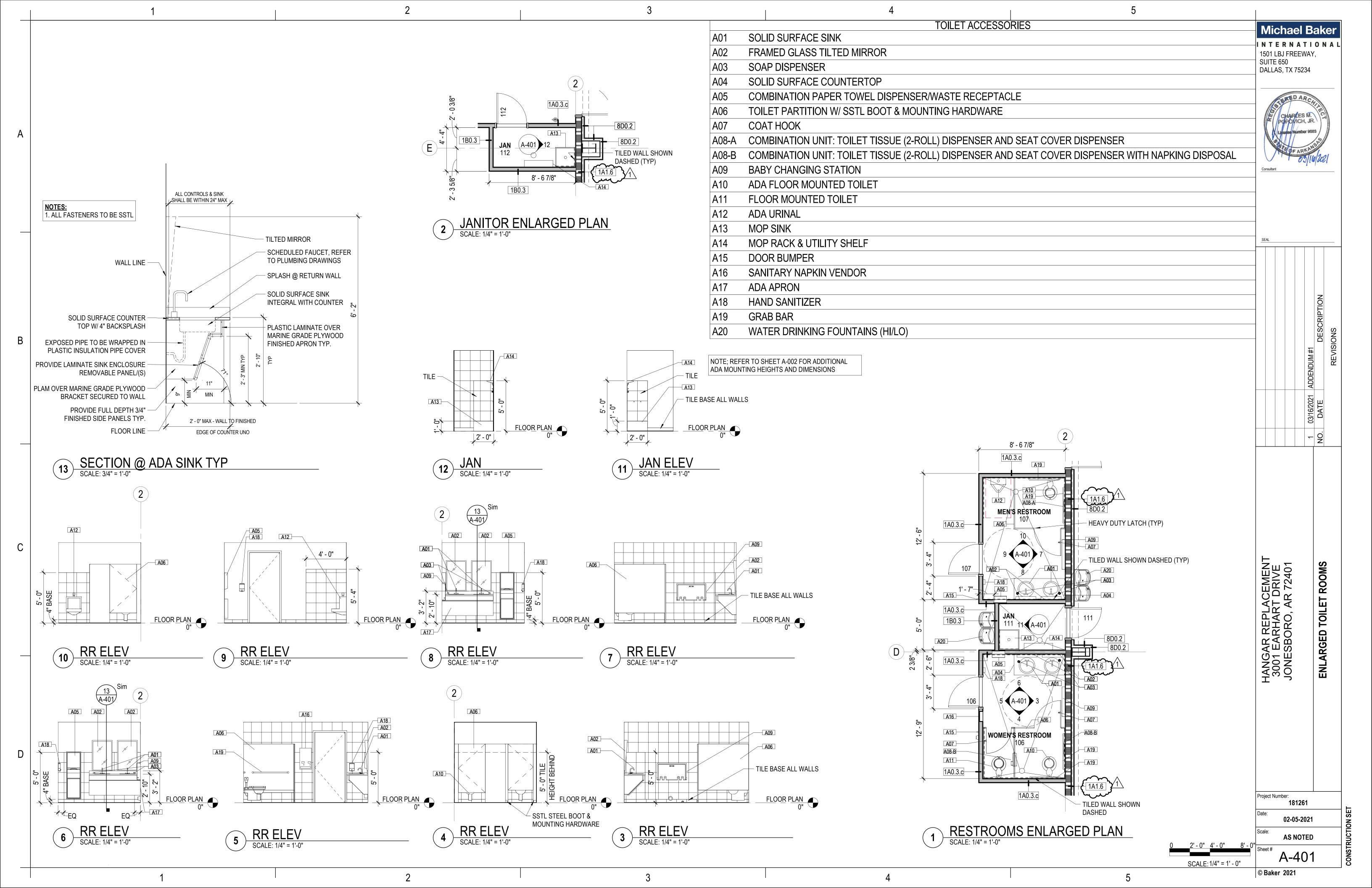


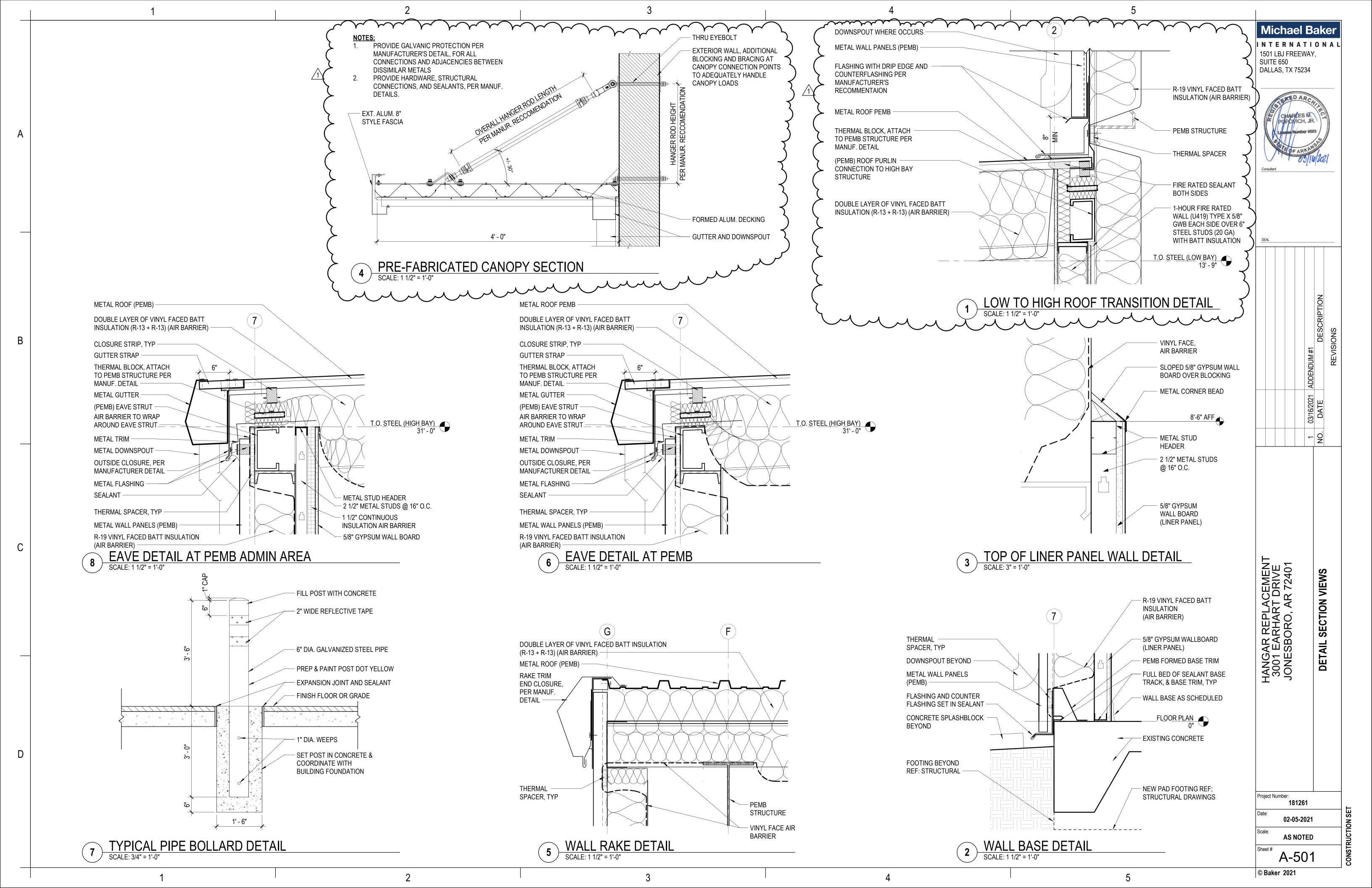


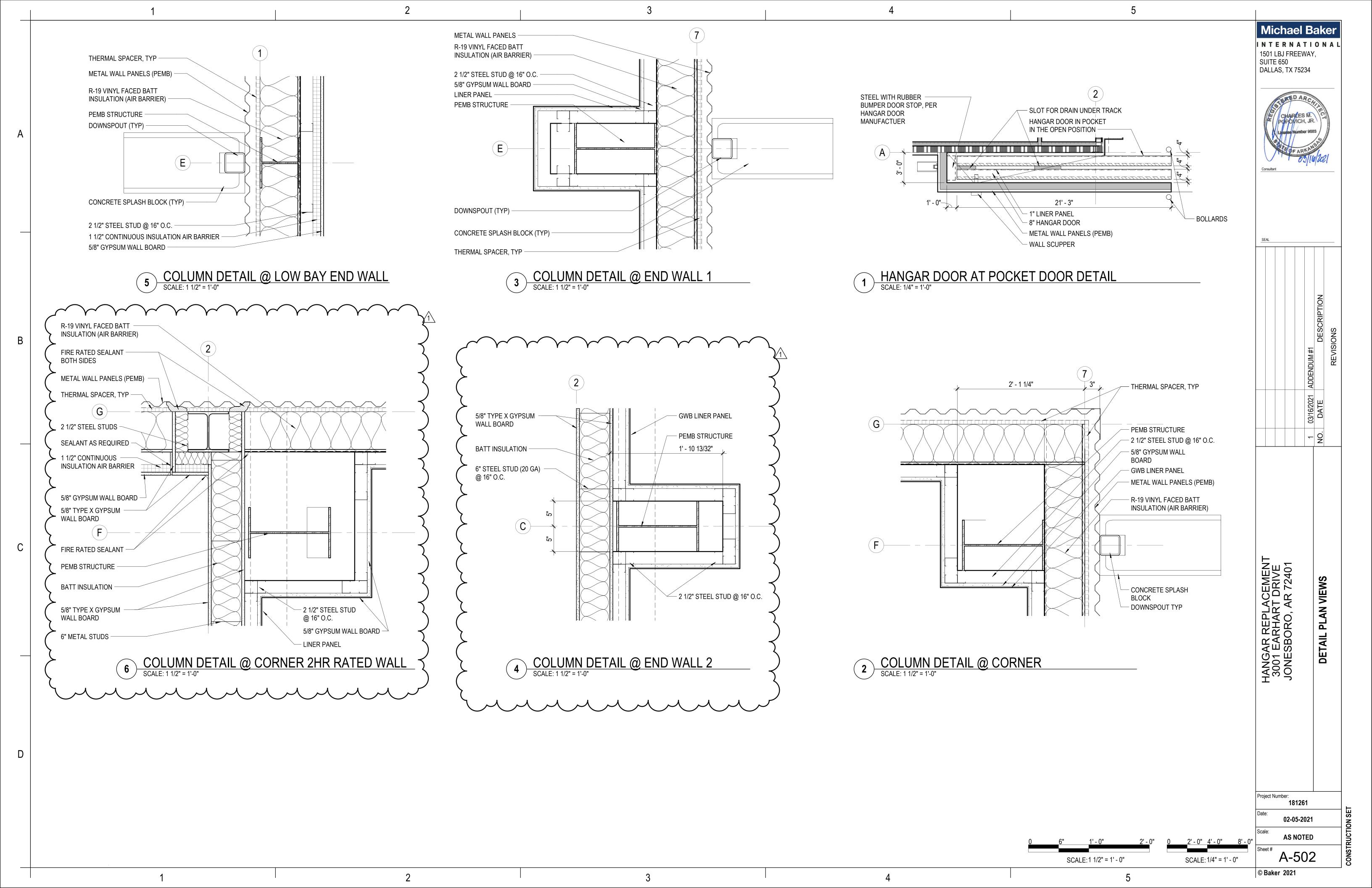


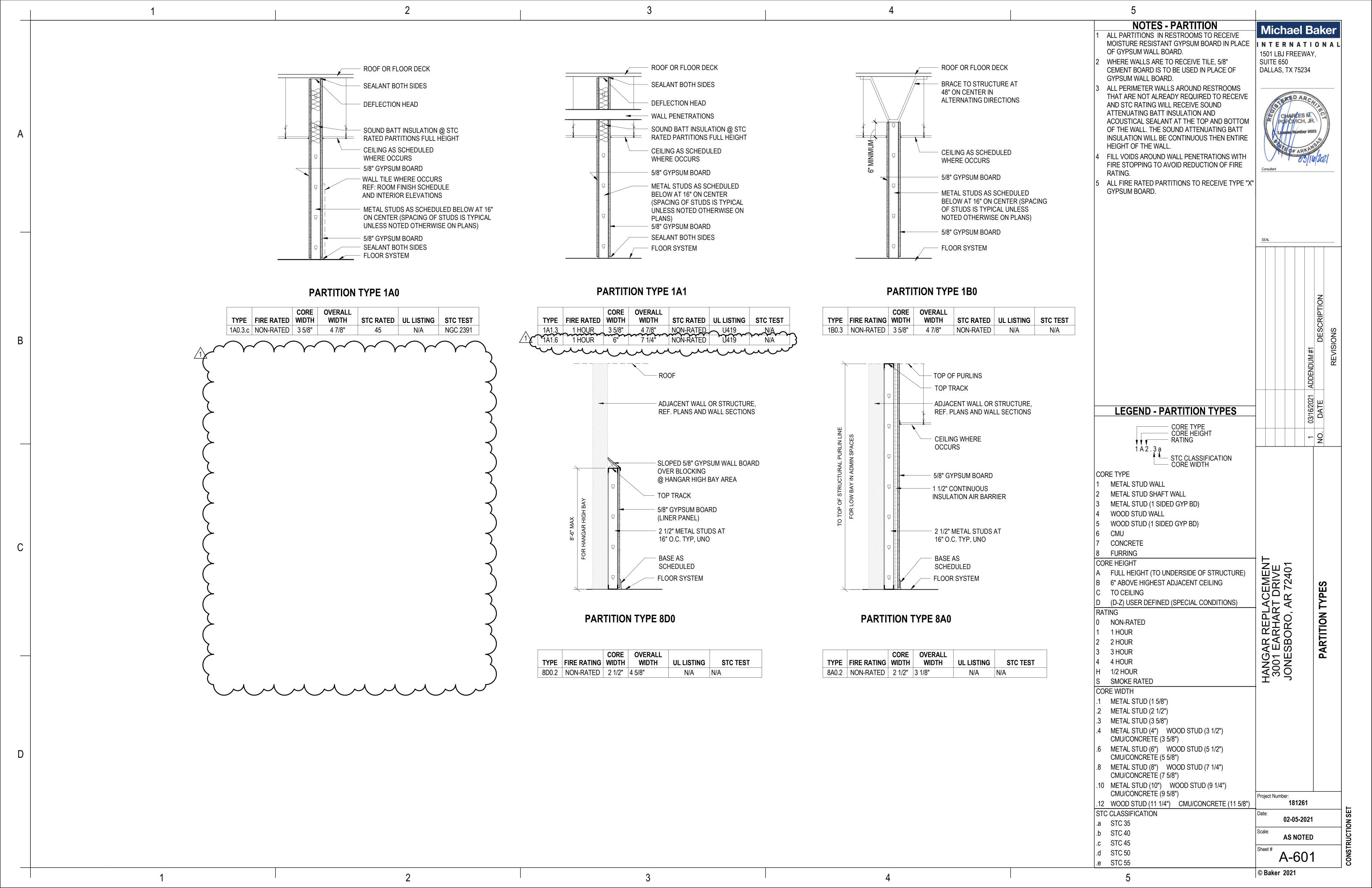


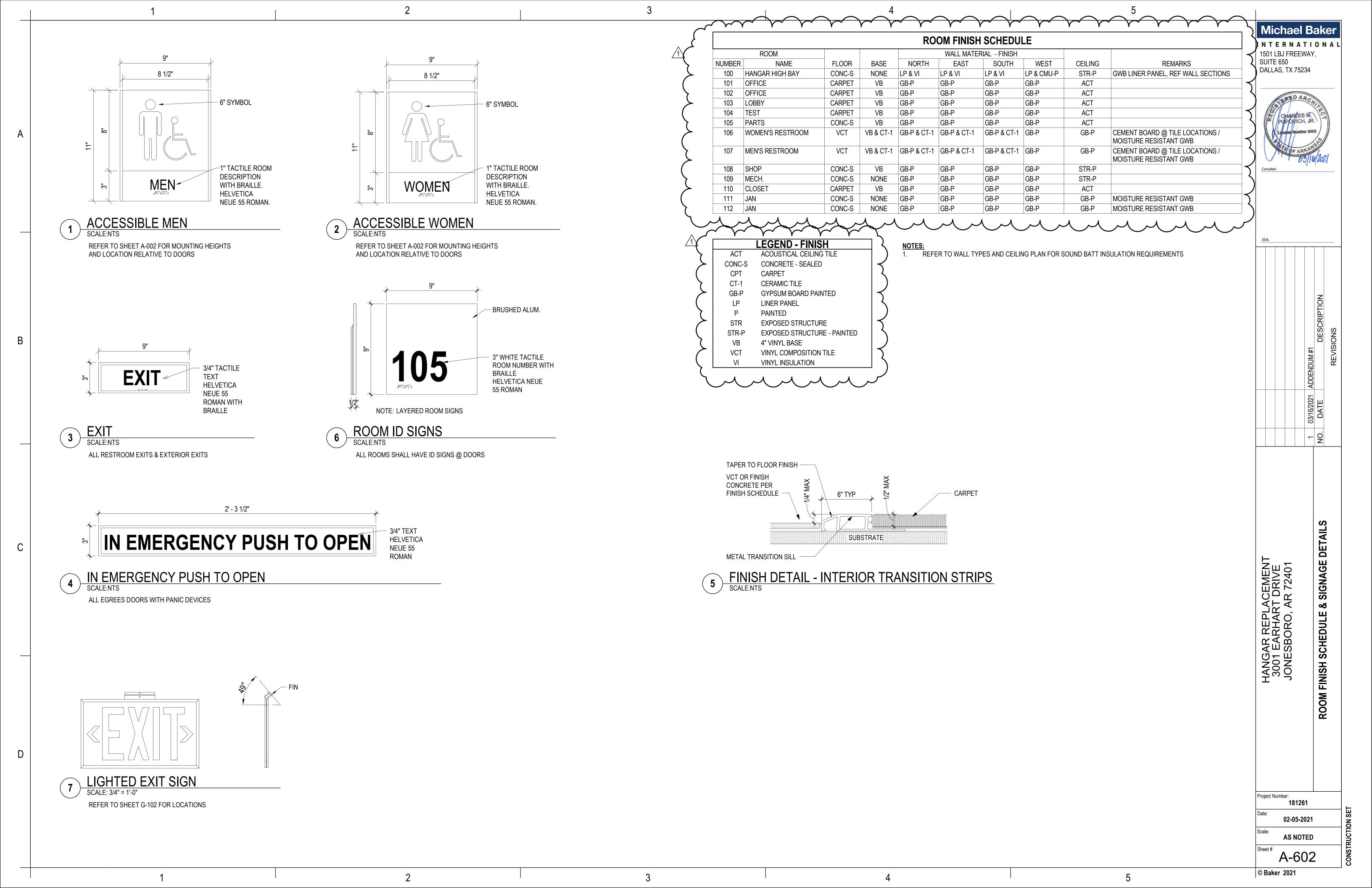


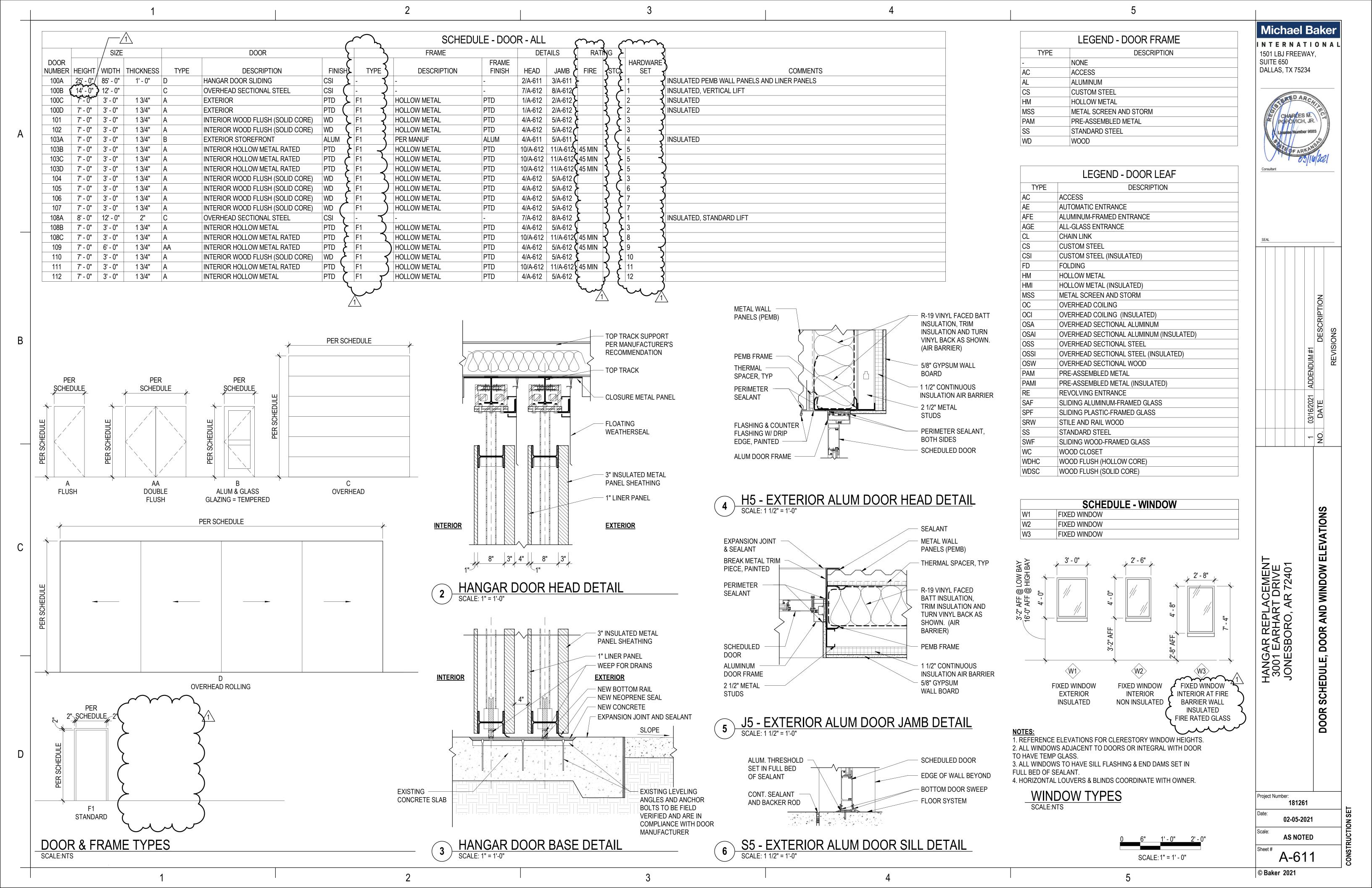


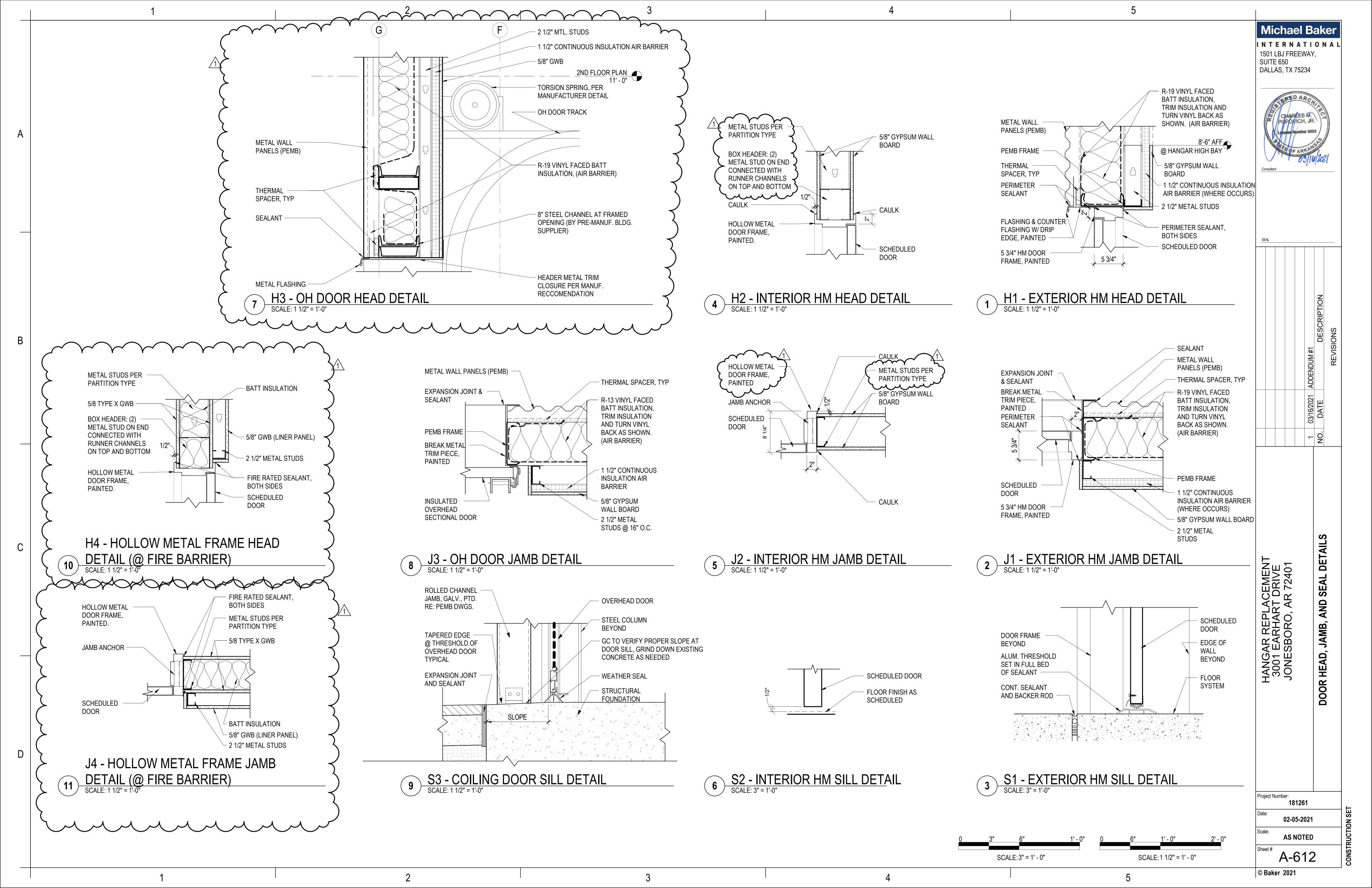


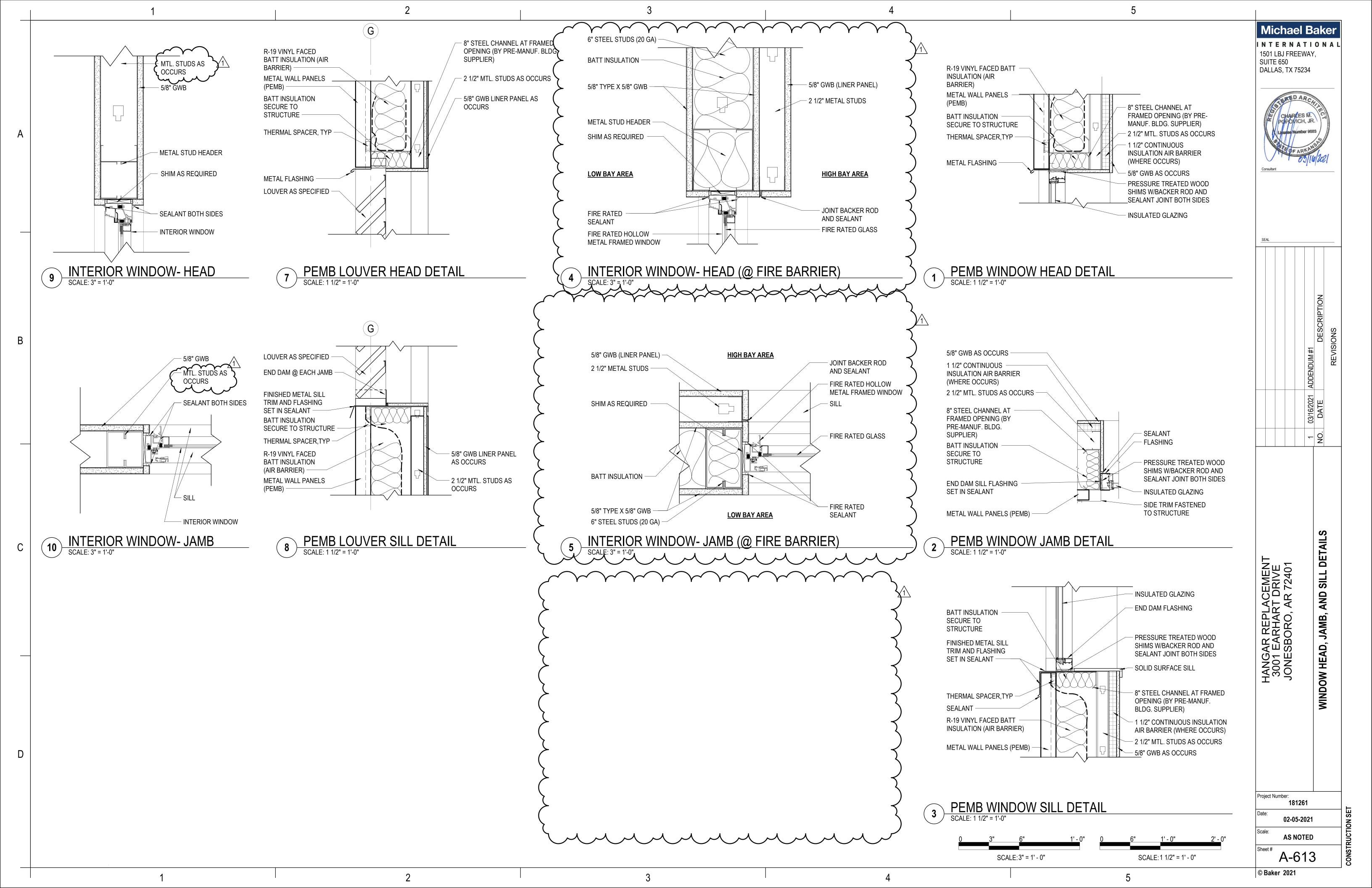


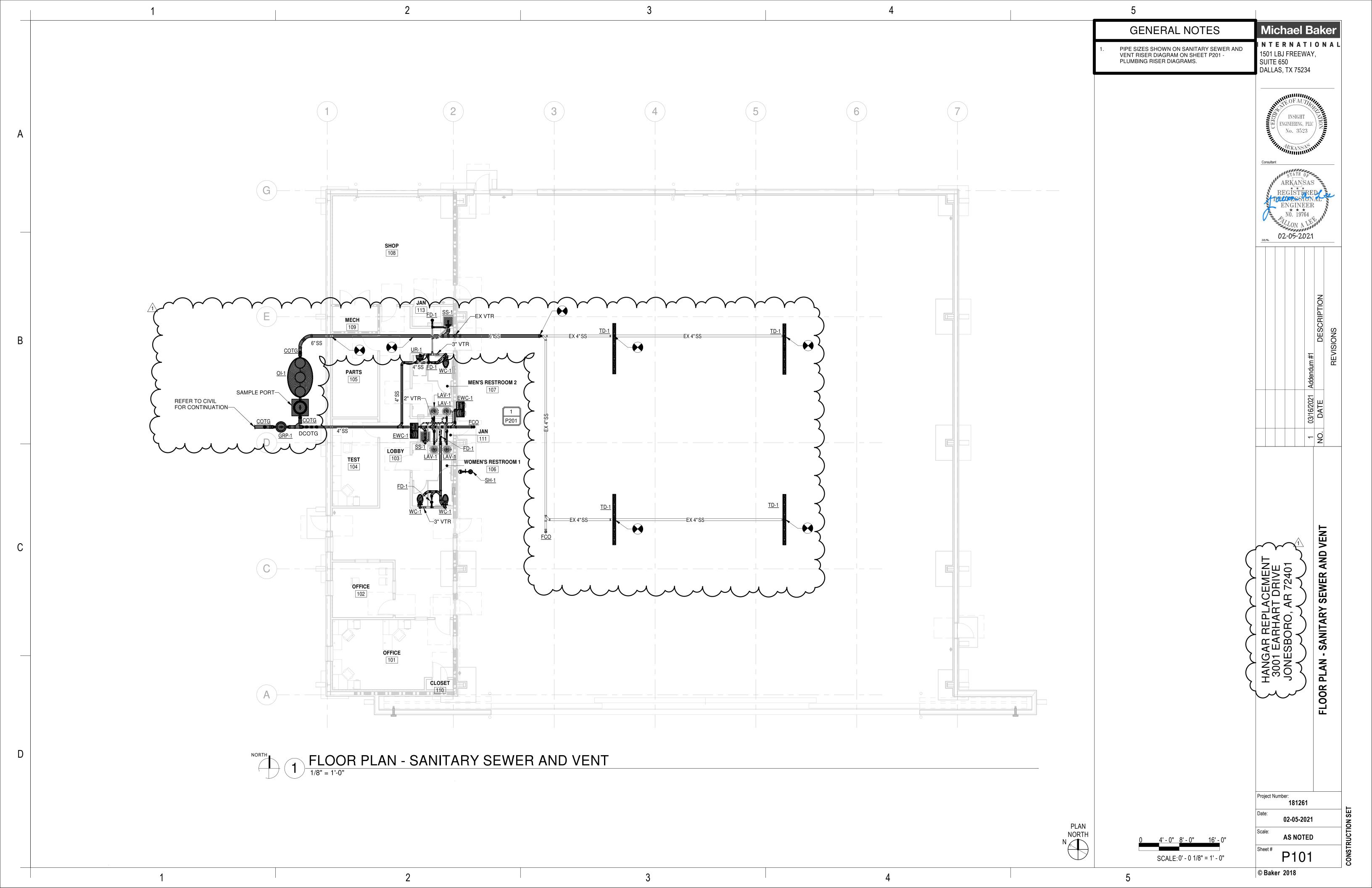


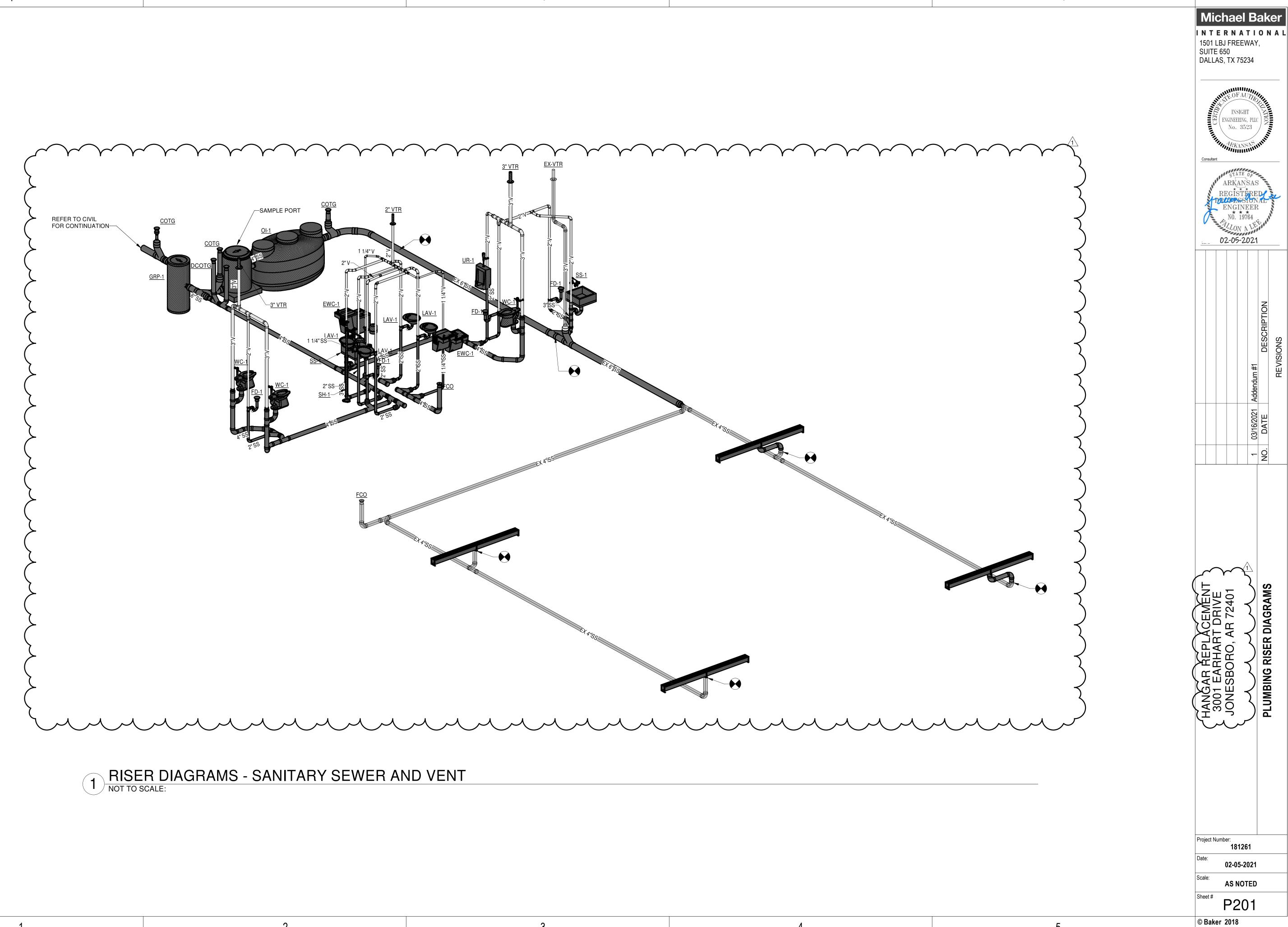






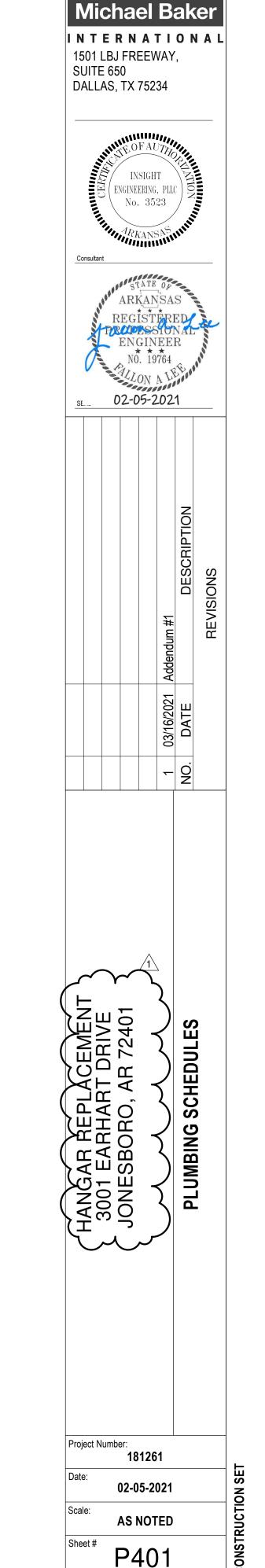






PLUMI	BING EQUIPI	MENT SCHEDU	LE				
DESIGNATION	EQUIPMENT	BASIS OF DESIGN	PIPING CONNECTIONS	NATURAL GAS INPUT	ELECTRIC (VOLT / PH / HZ)	POWER	REMARKS
<u>WH-1,</u>	NATURAL GAS TANK WATER HEATER	AOMSITH: XCR-30R	3/4" CW, 3/4" HW, 1/2" GAS, 4" VENT, 1/2" CONDENSATE	35,500	120V/1/60	-	NATURAL GAS TANK WATER HEATER -36 GPH @ 90°F, TANK TYPE, HIGH TEMP ENAMEL TANK LINING, MAGNESIUM ANODE ROD RIGIDLY SUPPORTED, 150 PSI WORKING PRESSURE RATING, HIGH LIMIT CONTROL, CSA/ASME RATED T&P RELIEF VALVE, UL SEAL OF CERTIFICATION, COMPLETELY FACTORY ASSEMBLED. 6 YEAR WARRANTY.
<u>ET-1</u>	EXPANSION TANK	ZURN WTTA-5	3/4"	-	-	-	
<u>GP-1</u>	GRINDER STATION PUMP STATION	LIBERTY 248 LSG	1-1/4"	-	208/1	15 AMP	2 HP, PROVIDE WITH ON/OFF FLOAT SWITCH, IN NEMA 4X OUTDOOR ALARM WITH VISUAL AND AUDIBLE ALARM

DESIGNATION	FIXTURE	DESCRIPTION	SIZE	OUTLET
WCO	WALL CLEAN OUT	WADE 8304 WITH ROUND CHROME COVER PLATE AND FRAME, COUNTERSUNK SCREWS	AS NOTED	-
FCO	FLOOR CLEANOUT	WADE 6000-1 CAST IRON, GASKETED HUB OUTLET, THREADED ADJUSTABLE HOUSING, BRONZE PLUG, NICKEL BRONZE SCORIATED TOP, VANDAL-PROOF SCREWS.	AS NOTED	-
<u>FD-1</u>	FLOOR DRAIN	ZURN ZN-415-S6" WITH CAST IRON BODY AND NICKEL BRONZE STRAINER.	AS NOTED	-
<u>FS-1</u>	FLOOR SINK	ZURN ZN-1901-2-32 WITH CAST IRON BODY AND NICKEL BRONZE FRAME AND 1/2" GRATE	AS NOTED	-
RPZ-1	BACKFLOW PREVENTER	WILKINS 975XL2 REDUCED PRESSURE ASSEMBLY WITH BRONZE WYE TYPE STRAINER AND AIR GAP	1"	-
<u>01-1</u>	OIL AND SOLID INTERCEPTOR	ZURN OMC500 - OIL INTERCEPTOR. INSTALL PER MANUFACTURER'S RECOMMENDATION. PROVIDE H20 TRAFFIC LOADING COVER COVER, EXTENSION COLLAR	500 GAL	4"
	WATER HAMMER ARRESTORS	ZURN Z1700 WATER HAMMER ARRESTOR, SIZED IN ACCORDANCE WITH PDI-WH201 AND ASSE-1010. BELLOWS AND CASING SHALL BE CONSTRUCTED OF STAINLESS STEEL, MAXIMUM WORKING PRESSURE OF 125 PSIG.	AS NOTED	-



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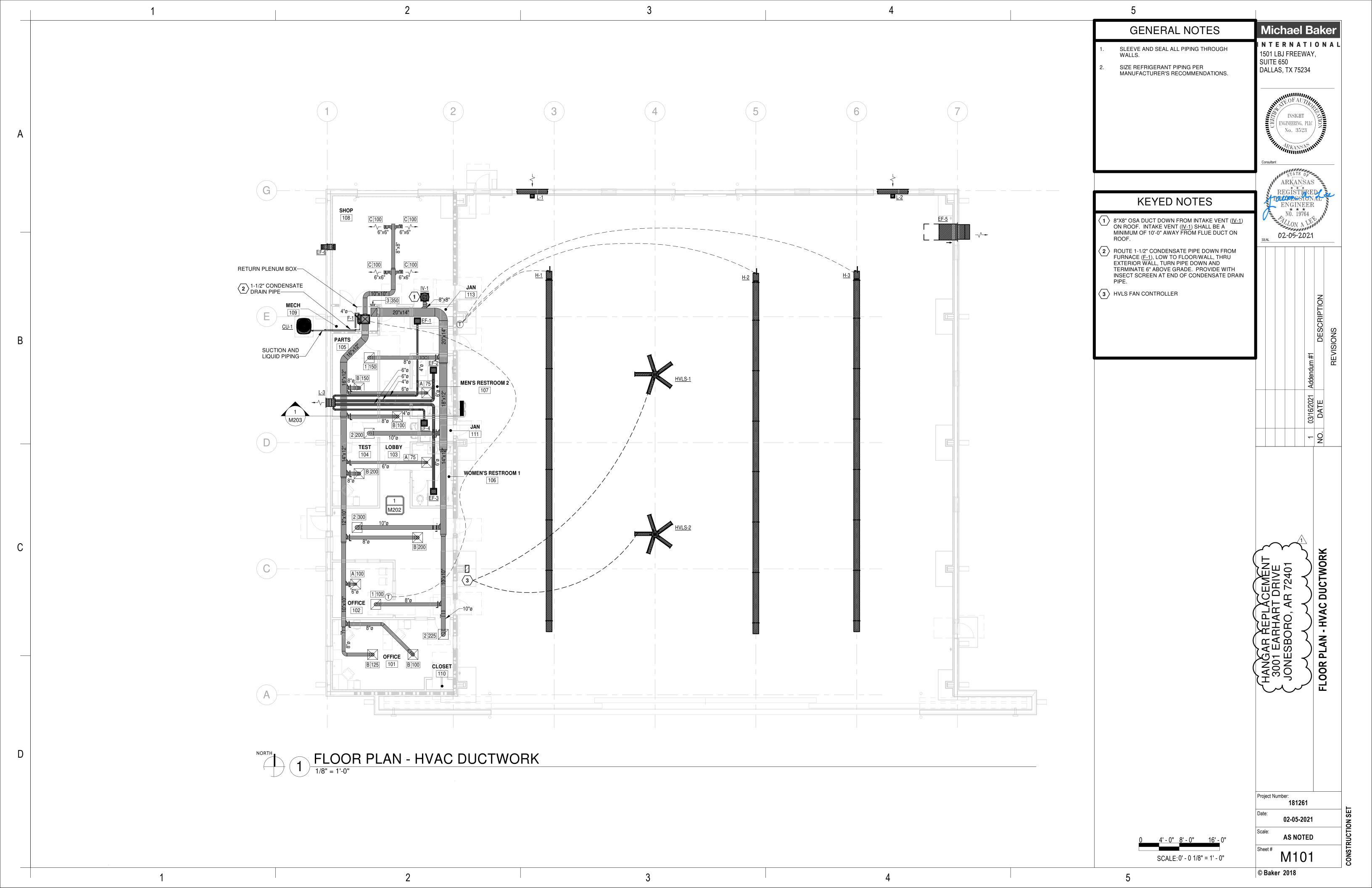
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COND	ENSING UNITS A	ND DIRECT	EXPANSIO	ON COILS	S							ELECTRICAL				
DESIGNATION	REFERENCE PRODUCT	NO. OF CONDENSOR FANS	REFRIGERANT TYPE	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	TOTAL AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	AIR EDB / EWB (DEGREE F)	1	AMBIENT AIR TEMPERATURE (DEGREE F)	MINIMUM EER	VOLTS	PHASE	MCA	MOP	REMARKS
CU-1	TRANE: 4TXCD008DS3 + 4TTR4060L1	1	R-410A	55.8	42.1	1425	270	80 / 67	58.0 / 56.8	95	11.7	230	1	31	50	INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE HAIL GUARD FOR CONDENSING UNIT.

GAS F	IRED DUCT FURN	ACE											
DESIGNATION	REFERENCE PRODUCT	SERVES	AIR FLOW RATE (CFM)	OUTSIDE AIRFLOW (CFM)	TEMP RISE (DEGREE F)	NATURAL GAS INPUT (MBH)	HEATING OUTPUT (MBH)	ASSOCIATED DX/COIL CONDENSING UNIT	FLUE DIAMETER	WEIGHT (LBS)	VOLTS	PHASE	REMARKS
F-1	TRANE: S9X1C080U5PSB	OFFICE AREA	1425	270	40	80	78	CU-1	4	160	120	1 1	INSTALL AND MOUNT DUCT MOUNTED FURNACE PER MANUFACTURER'S INSTRUCTIONS.

ESIGNATION F	REFERENCE PRODUCT	TYPE	SERVES	DRIVE	ROTATION	AIR FLOW RATE	STATIC PRESSURE (IN.	SONES	MOTOR SIZE	ELECT	TRICAL	
SIGNATION	REFERENCE PRODUCT	TTPE	SERVES	DRIVE	(RPM)	(CFM)	WATER)	· 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		PHASE		
EF-1	GREENHECK: SPB70	CEILING	113 JAN	DIRECT	675	35	0.2	1	0.1	120	1	FAN SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. INSTALL PER MANUFACTURER'S INSTRUCTIONS
EF-2	GREENHECK: SPB110	CEILING	107 MENS RR	DIRECT	950	100	0.2	1.5	0.1	120	1	INTERLOCK FAN WITH LIGHTSWITCH. INSTALL PERMANUFACTURER'S INSTRUCTIONS
EF-3	GREENHECK: SPB70	CEILING	106 WOMENS RR	DIRECT	950	100	0.2	1	0.1	120	1	INTERLOCK FAN WITH LIGHTSWITCH. INSTALL PERMANUFACTURER'S INSTRUCTIONS
EF-4	GREENHECK: SPB69	CEILING	110 JAN	DIRECT	675	35	0.2	1	0.1	120	1	FAN SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. INSTALL PER MANUFACTURER'S INSTRUCTIONS
EF-5	GREENHECK: SBE-2L30	WALL MOUNTED	HANGAR	BELT	450	10,000	0.25	20	13	240	1	FAN SHALL BE INTERLOCKED WITH LOUVERS. PROVIDE WALL COLLAR AND BIF SCREEN. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE MOTOR STARTER AND ELECTRICAL DISCONNECT. FAN SHALL OPERATE DURING THE SUMMER AND WHEN A PLANE IS ENTERING/EXITING THE BUYDING.
EF-6 GR	REENHECK: SE1-8-440-VG	WALL MOUNTED	108 SHOP	DIRECT	1350	260	0.1	3.5	0.1	120	1	PROVIDE WALL COLLAR AND BIRD SCREEN. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE MOTOR STARTER AND ELECTRICAL DISCONNECT. ON/OFF WALL SWITCH SHALL BE PROVIDED. FAN SHALL OPERATE WHEN WELDER IS ON.
INTAKE	VENTS	~~	سر پسر	<u>ر</u>	المر يا		المر يالم	کیر	رىر	\	<u> </u>	men men men

SPUN PROVIDE MANUFACTURER'S ROOF CURB AND INSECT SCREEN.
ALUMINUM INSTALL PER MANUFACTURER'S INSTRUCTIONS.

RADIA	NT HEATERS - G	SAS				RADIANT HEATERS - GAS												
DESIGNATION	DESIGNATION REFERENCE PRODUCT TUBE LENGTH WEIGHT INPUT			ELECTRICA		REMARKS												
DESIGNATION	REFERENCE PRODUCT	(FT)	(LBS)	(BTU/HR)	VOLTS	PHASE	HP	REMARKS										
H-1,2,3	MODINE: IPT-150-S-01-11	60	65	160	120	1	1 0.3	PROVIDE STRAIGHT TUBE. INSTALL PER MANUFACTURER'S										

300

AIR DE	VICES								
DESIGNATION	REFERENCE PRODUCT	CONFIGURATION	MAXIMUM AIRFLOW (CFM)	TOTAL PRESSURE (IN. WATER)	NECK SIZE (IN.)	PANEL SIZE (IN.)	MAX. N.C.	FINISH	REMARKS
А	TITUS: OMNI AA	LAY-IN PLAQUE	225	0.099	6	24 x 24	30	WHITE	
В	TITUS: OMNI AA	LAY-IN PLAQUE	350	0.112	8	24 x 24	30	WHITE	
С	TITUS: 300FL	LAY-IN	100	0.1	6 x 6	8 x 8	30	WHITE	PROVIDE 22.5 DEGREE DEFLECTION.
1	TITUS: 50F	LAY-IN EGGCRATE	300	0.095	8"	24 x 24	30	WHITE	1/2" x 1/2" x 1/2" ALUMINUM CORE. PROVIDE FILTER. USE SRG ADAPTER.
2	TITUS: 50F	LAY-IN EGGCRATE	475	0.095	10"	24 x 24	30	WHITE	1/2" x 1/2" x 1/2" ALUMINUM CORE. PROVIDE FILTER. USE SRG ADAPTER.
3	TITUS: 350RL	LAY-IN	350	0.1	10 x 10	12 x 12	30	WHITE	PROVIDE 22.5 DEGREE DEFLECTION.

LOUVE	LOUVERS												
DESIGNATION	REFERENCE PRODUCT	TYPE	WIDTH (INCHES)	HEIGHT (INCHES)	DEPTH (INCHES)	MAXIMUM AIR FLOW (CFM)	PRESSURE DROP (IN. WATER)	FINISH	REMARKS				
L-1,2	GREENHECK: EAD-634	INTAKE COMB. DAMPER/LOUVER	72	40	6	5000	0.03	LALUMINUM	PROVIDE MANUFACTURER'S BIRD AND INSECT SCREEN PAINT TO MATCH ADJACENT SURFACE.				
L-3	GREENHECK: EDJ-401	EXHAUST STATIONARY	18	12	6	270	0.06	LALUMINUM	PROVIDE MANUFACTURER'S BIRD AND INSECT SCREEN PAINT TO MATCH ADJACENT SURFACE.				

HIGH	VOLUME, LOW S	SPEED ((HVLS) I	FANS			
DESIGNATION	REFERENCE PRODUCT	RPM	BLADE LENGTH	MOTOR HP	VOLTS / PHASE	WEIGHT (LBS)	REMARKS
HVLS-1,2	GREENHECK: DC-5-8	185	4	1/4	120 / 1	l ŏh	PROVIDE MULTI FAN CONTROLLER, INSTALL FAN AND CONTROLLER PER MANUFACTURER'S INSTRUCTIONS.

Michael Baker INTERNATIONAL 1501 LBJ FREEWAY, SUITE 650 DALLAS, TX 75234 SEAL 02-05-2021 Project Number: 02-05-2021 **AS NOTED**

GREENHECK: GRSI-8 AH-1

GRAVITY

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M301
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