2D. Framing Members\* — Steel Studs — As an alternate to Items 2 through 2C — For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2

RAY-BAR ENGINEERING CORP — Type R8-LBG CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

2F. Framing Members\* — Steel Studs — As an alternate to Items 2 through 2E — For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than

2G. Framing Members\* — Steel Studs — Not Shown — In lieu of Item 2 through 2F — For use with Item 1G. Proprietary channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height.

STUDCO BUILDING SYSTEMS — CROCSTUD 4J. Gypsum Board\* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For STUDCO BUILDING SYSTEMS — CROCSTUD

4). Gypsum Board\* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2 — Non 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. Gypsum board secured to studs with 1-1/4 in. long Type 5-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, Studs cut 3/4 in. less in length hashort.

MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

nels with beveled, square or tapered edges installed as described in Item 4 and 4A. Framing Members\* — Steel Studs — In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min CGC INC — Type ULX osion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly UNITED STATES GYPSUM CO - Type ULX EB METAL INC — NITROSTUD

MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly 4L. Gypsum Board\* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For OLMAR SUPPLY INC — PRIMESTUD

2K. Framing Members\* — Steel Studs — As an alternate to Item 2 — For use with Item 1B (3-5/8 in. wide track), channel haped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in. deep, spaced a max of 24 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in.

Solution in 25 MSG corrosion-protected steel, 1-1/4 in, wide by 3-5/8 in.

Sol MARINO/WARE, DIV OF WARE INDUSTRIES INC - StudRite\*\* adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall 2L. Framing Members\* - Steel Studs - As an alternate to Items 2 - For use with Item 1J, channel shaped studs, min 3-5/ n. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly

covered with paper tape and joint compound. Screw heads covered with joint compound.

AMERICAN GYPSUM CO — Type AG-C CERTAINTEED GYPSUM INC — Type C 2N. Framing Members\* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1L, proprietary channel shaped 4N, Wall and Partition Facings and Accessories\* — (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length applied vertically and secured as described in Item 4.

USG MEXICO S A DE C V - Type ULX

backed by steet transing. Horizontal joints on the same side need not be staggered. When applied nonzontality, both layers or gypsum board fastened to each side of framing with 1 in. long Type 5 steet screws spaced 8 in. OC and staggered 4 in. OC between layers. When applied vertically, both layers of gypsum board fastened to each side of framing with 1 in. long Type 5 steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field, staggered 4 in. OC between layers. Screws spaced a max 12 in. along the top and bottom edges of the wall. NATIONAL GYPSUM CO — Type FSW

4Q. Gypsum Board\* — 3/4 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track as described in Item 4 with

4R. Gypsum Board\* — As an alternate to Item 4D. For use with Item 3E, Batts and Blankets\* — 5/8 in. thick, 4 ft wide,

1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC

6A. Steel Framing Members\* — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing

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

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 into clips.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-13

ABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

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

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type QuietRock 527 4O. **Gypsum Board\*** — As an alternate to Items 4, 4A, 4B, and 4C — Two layers Nom. 5/16 in. thick gypsum panels applied 3. Batts and Blankets\* — (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. See Batts and Blankets (BZJZ) category for names of Classified companies. vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal joints on the same side need not be staggered. When applied horizontally, both layers of

ROCKWOOL MALAYSIA SDN BHD — Type Acoustical Fire Batts

3A. Fiber, Sprayed\*— As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft<sup>3</sup>. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied with the product with a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied with the product with a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied with the product with a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied without water or adhesive at a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied without water or adhesive at a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions supplied without water or adhesive at a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions of the product with the product with a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions and the product with a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions are applied without a nominal dry density of 5.5 lb/ft<sup>3</sup>, in accordance with the application instructions are applied without a nominal dry density of 5.5 lb/ft<sup>3</sup>, in thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over study and the product with the product with the product with a nominal dry density of 5.5 lb/ft<sup>3</sup>, in thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over study and the product with the product with the product with the product wi product.

U. GREENFIBER L. C — INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only application only application only.

3B. Fiber, Sprayed\* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to pletely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

3C. Fiber, Sprayed\* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The INTERNATIONAL CELLULOSE CORP — Celbar-RL

NATIONAL GYPSUM CO — Type FSLX. 45. Gypsum Board\* — As an alternate to Item 4. For use with Item 3E, Batts and Blankets\* — 5/8 in. thick, 4 ft wide, installed 3D. Batts and Blankets\* — For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the as described in Item 4A. CERTAINTEED GYPSUM INC — Type CLLX. 3E. Batts and Blankets\* — For use with Item 4R and 4S. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation 4T, Wall and Partition Facings and Accessories\* — (As an alternate to 5/8 in. thick board as outlined in Item 4) — Nominal

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. 3F. Fiber, Sprayed\* — As an alternate to Batts and Blankets (Item 3) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the
4. Gypsum Board\* — 5/8 in. thick, 4ft wide, attached to steel studs and floor and ceiling track with 1 in. long. Type 5 steel
screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered
on opposite sides of the assembly. When Steel Framing Members\* (Item 6 or any alternate clips) are used, gypsum board is
screw attached to furring channels with 1 in. long, Type 5 steel screws spaced 12 in. OC. When using Type ULIX, panels may be
applied vertically or horizontally, screws spaced 12 in. OC in the field and perimeter, horizontal edge joints and horizontal butt
ioints on opposite sides of the assembly. When beel Framing Members\* (Item 6 or any alternate clips) are used, gypsum board is
applied vertically or horizontally, screws spaced 12 in. OC in the field and perimeter, horizontal edge joints and horizontal butt
ioints on opposite sides of the assembly. When 5 teel Framing Members\* (Item 6 or any alternate clips) are used, gypsum board is
screw attached to furring channels with 1 in. long, Type 5 steel screws spaced 12 in. OC. When using Type ULIX, panels may be
applied vertically or horizontally, screws spaced 12 in. OC in the field and perimeter, horizontal edge joints and horizontal butt
ioints on opposite sides of the assembly. When Steel Framing Members\* (Item 6 or any alternate clips) are used.

6. Resilient Channel — (Optional — Not Shown) — 25 MSG galv steel resilient channels spaced vertically max 24 in. OC,

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1

CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

4A, Gypsum Board\* — (As alternate to Item 4) — Nom 5/8 in, thick gypsum panels with beyeled, square or tapered edges. an. uppsum Board — (As attendate to item 4) — Nom 3/8 in. thick gypsum paness with Develed, square or taperee degles, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavily on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. CC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in within other than 48 in., gypsum panels to be installed horizontally. When using ULIX, panels need not be staggered in horizontal populations and consumers are being and the processor of the staggered of the staggered in horizontal populations and staggered in the staggered in horizontal populations. CERTAINTEED GYPSUM INC — Type X.1, Type C.1, Type CRGG/GlasRoc 2, Type SilentFX, Easi-Lite Type X-2

68. Framing Members\* — (Optional on one or both sides, Not Shown, As an alternate to Item 6) — Furring channel and

CERTAINTEED GYPSUM INC — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD UNITED STATES GYPSUM CO - Types AR, IP-AR

USG MEXICO S A DE C V — Types AR, IP-AR

CERTAINTEED GYPSUM INC - Type LGFC6A, LGFC-C/A

4C. Gypsum Board\* — As an alternate to Items 4, 4A, and 4B — Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge join and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing.

GEORGIA-PACIFIC GYPSUM LLC — Type DGG, GreenGlass Type X steel studs, 1-1/4 in, wide by min 3-5/8 in. deep fabricated from min 0.020 in, thick galv steel. Studs cut 3/4 in, less in length

4D, **Gypsum Board\*** — As an alternate to Items 4, 4A, 4B, and 4C — Nom. 5/8 in, thick gypsum panels applied vertically or orizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge ints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels stened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 . along the top and bottom edges of the wall for both vertical and horizontal applications. When used in widths other than in., gypsum panels to be installed horizontally.
 NATIONAL GYPSUM CO — Types eXP-C, F5K, F5K-C, F5K-G, F5L, F5W-C, F5W-G, F5W, F5W-3, F5W-5, F5W-6, F5MR-C

> 4E. Gypsum Board\* — (As an alternate to Items 4 through 4D) — Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 12 in. OC.
>
> NATIONAL GYPSUM CO — Type SBWB

2C. Steel Studs — (As an alternate to Item 2, For use with Item 1C) — Channel shaped, fabricated from min 20 MSG corrosion- 4F. Gypsum Board\* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to to 3/4 in. less than assembly height. See materials in Item(s) 4 that require Item 2C studs.

direct attachment only to steel studs Item 2C) - 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.

Gypsum board 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

4G. Gypsum Board\* — (As an alternate to Items 4 through 4F) — For use with Items 1D and 2D only, 5/8 in, thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in, long, Type 5 steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in, OC in field and

cGC INC — Type SCX, ULIX

2E. Framing Members\* — Steel Studs — As an alternate to Items 2 through 2D — For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in, wide fabricated from min 0.018 in, thick, 4 ft wide panels, applied vertically and secured as described in Item 4. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES ired to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R 4i. Gypsum Board\* — (As an alternate to Items 4 through 4F) — For use with Items 1E and 2E only, 5/8 in. thick, 4 ft wide,

attached to steel studs and floor and ceiling track with 1 in. long, Type 5 steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using 6D. Steel Framing Members\* — (Optional, Not Shown As an alternate to Item 6) — Furring channels and Steel Framing Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in, OC perpendicular to studs. Channels secured o studs as described in Item 60b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of lo. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for use with b. Steel Framing Members\* — UUsed to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC, and secured to studs with No.8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted REGUPOL AMERICA — Type SonusClip

> 6E. Steel Framing Members\* — (Optional, Not Shown As an alternate to Item 6) — Resilient channels and Steel Framing ers as described below:
>
> a. **Resilient Channels** — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels tured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 5 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4. Not for use with Items 4F, 4J, or 4L. secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw. KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

6F Steel Framing Members\* — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing a Furring Channels — Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping eff farming screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 4. b Steel Framing Members\* — Used to attach furring channels (Item 6Fa) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8  $\times$  2-1/2 in. coarse drywall screw through the center grommet. Furring channels are CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

6F. Steel Framing Members\* — (Optional, Not Shown) — Furring channels and Steel Framing Members 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. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for use with b. Steel Framing Members\* — Used to attach furring channels (Item 6Fa) to studs. Clips spaced 48 in. OC., and tuds with No. 10 x 2 in. screw through the center hole. Furring channels are friction fit into clips.

MASON INDUSTRIES INC — Type CWC-50

7. Wall and Partition Facings and Accessories\* — (Optional, Not Shown) — Nominal 1/2 in, thick, 4 ft wide panels, for commendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL Classified gypsum courf the remained UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing,

8. Mineral and Fiber Board\* — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 gypsum board layer (Item 4M) is to be installed over the Mineral and Fiber Boards. Batts and Blankets, Item 3D, and Adhesive,

HOMASOTE CO — Homasote Type 440-32 BA. Mineral and Fiber Board — (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom

1/2 in, thick, 4 ft wide, square edge fiber boards applied vertically to stude on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in, long, Type 5 steel screws spaced 12 in, OC max, with the last screws spaced 2 in, and 6 in, from edge of board, Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. Not evaluated for use with Item 4M.

BLUE RIDGE FIBERBOARD INC — SoundStop 8B. Mineral and Fiber Board\* — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type 5 steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer is to be installed over the Mineral and Fiber Boards and secured to studs with length of

fasteners increased by 1/2 in. over the length specified for installation of the gypsum boards. Batts and Blankets, Item 3, are tional unless otherwise required. Not for use with Items 4F, 4J, 4L, and 4M. 9. Lead Batten Strips — (Not Shown, For Use With Item 4E) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a

10. Lead Discs or Tabs — (Not Shown, For Use With Item 4E) — Used in lieu of or in addition to the lead batten strips (Item 8)

n. long Type 5-12 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

onal at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4E) underneath screw ris prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification 10/15 count for the screws. 10A. Lead Discs — (Not Shown, for use with Item 4J) — 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".

lembers as described below:

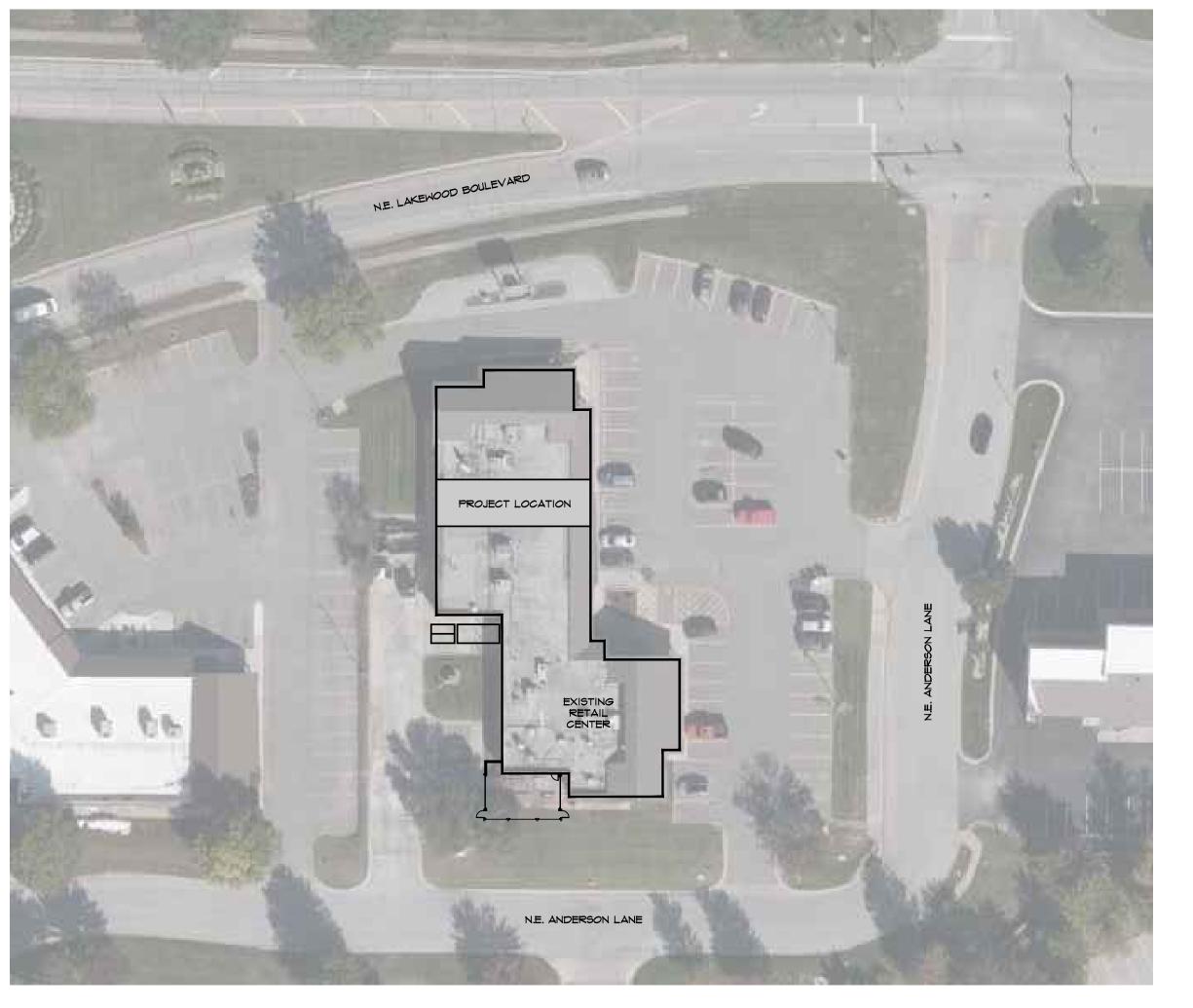
a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in.

OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are
overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an
alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6
framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Not for b. Framing Members\* — Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32. 12. Wall and Partition Facings and Accessories\* — (Optional, Not Shown) — For use with Items 1 to 11, Items 2 to 2J, Item 3, Items 4 to 44, item 5 and item 6, For maximum fire rating or 1 nour. On one side of the wall, over the first layer of cypsum Board (Item 4 to Item 44), install Reflexor membrane with the gold side facing outwards. Membrane installed its 50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When Reflexor membrane is used an additional layer of Gypsum Board that is identical to the one used in the first layer and as specified in Item 4 to Item 44 shall be installed over the membrane. The additional layer of Gypsum Board to be nstalled through the membrane to the stud as specified in Item 4 to Item 4I except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 3. On the other side of the wall, prior to the installation of the Gypsum Board, install Resilient Channels as per Item 6. Over the Resilient Channels install 3/4 inch thick panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 4 to

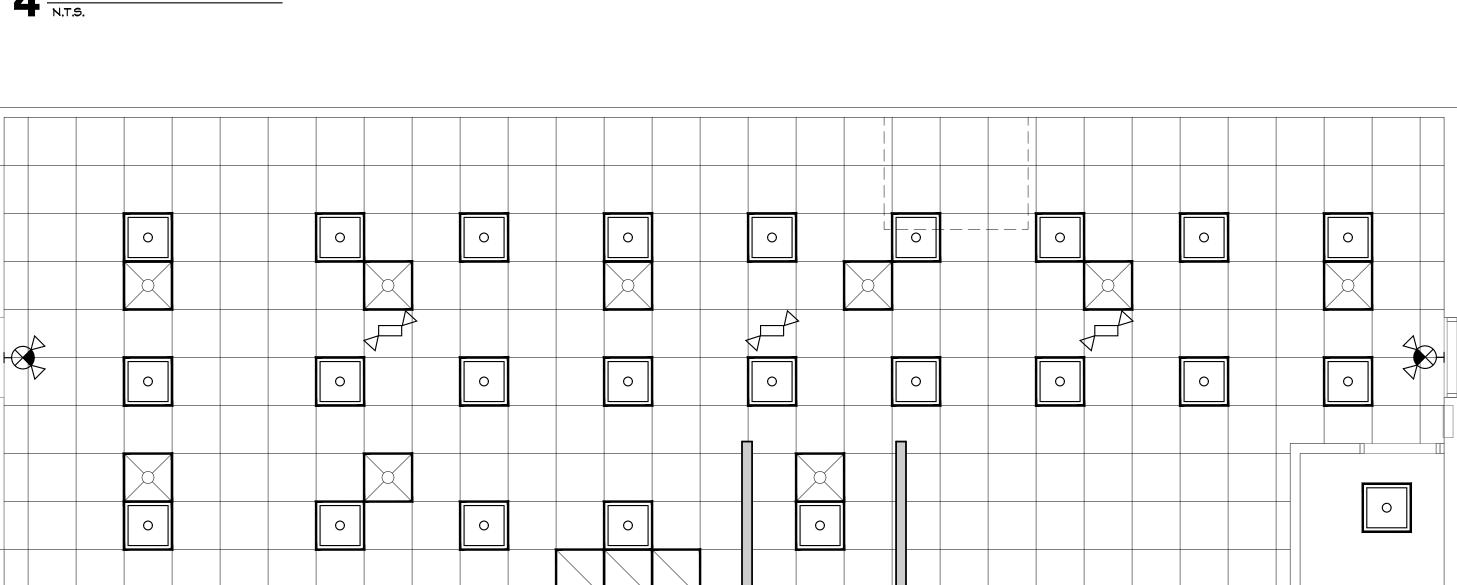
13. Barrier Mesh — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 6C. Steel Framing Members\* — (Optional, Not Shown, As an alternate to Item 6) — Furring channels and Steel Framing nches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long inteers 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. Ends of adjoining channels overlapped 6 in. and tied together with double strand of dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the raming members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

Reprinted from the Online Certifications Directory with permission from U.L. ©2021 UL LLC



4 PROJECT LOCATION N.T.S.

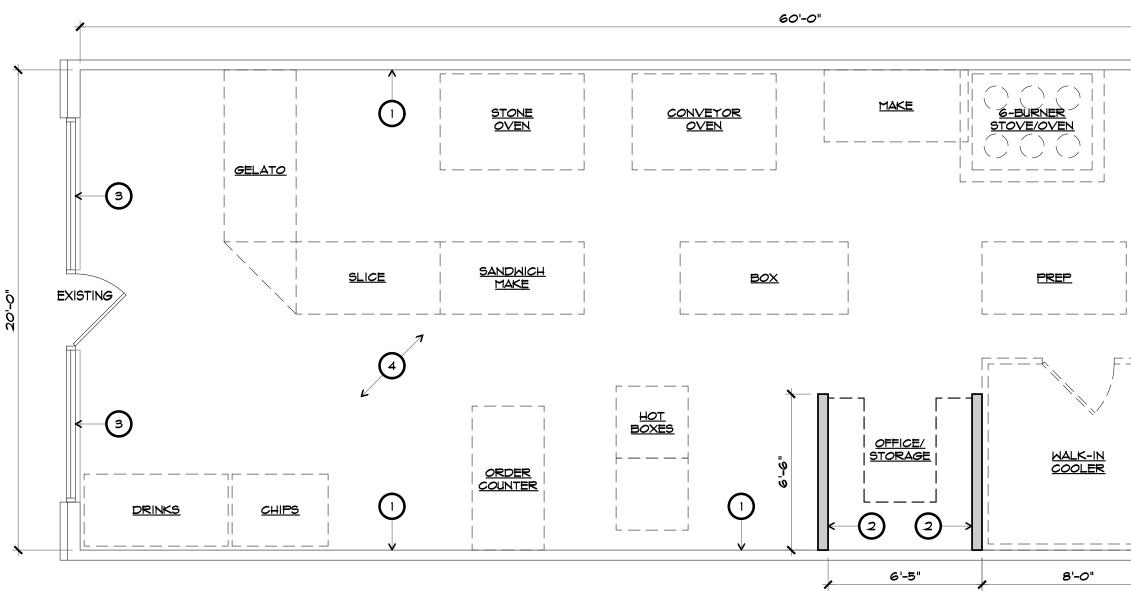


DRAWING INDEX

ARCHITECTURAL A2.0 FLOOR PLAN, REFLECTED CEILING PLAN MECHANICAL, PLUMBING, ELECTRICAL MI.O MECHANICAL PLAN

PI.O PLUMBING WASTE & VENT PLAN EI.O ELECTRICAL POWER PLAN E2.0 ELECTRICAL LIGHTING PLAN E3.0 ELECTRICAL LEGEND & NOTES

2x2 ACOUSTICAL TILE CEILING @ 9'-O" A.F.F. 2x2 L.E.D. LIGHT FIXTURE MECHANICAL SUPPLY DIFFUSER MECHANICAL RETURN DIFFUSER



KEYED PLAN NOTES

MALK-IN FREEZER

<u>8'-0" TRIPLE SINK</u>

<u>DISH PIT</u>

L — — — -

EXISTING

NO WORK

1. UPGRADE WALL TO COMPLY WITH U.L. ASSEMBLY #U465. 2. 5/8" GYP. BD. ON EACH SIDE OF 3-5/8" MTL. STUDS @ 16"o.c. TO 6" ABOVE FINISHED CEILING. DIAGONALLY BRACE WALL TO STRUCTURE ABOVE. PROVIDE IN-WALL WD. BLOCKING

FOR SECURE SHELVING ATTACHMENT. 3. EXISTING STOREFRONT SYSTEM TO REMAIN. CLEAN \$ REPAIR AS REQUIRED.

4. SEALED CONCRETE FLOOR. PROVIDE 4" RUBBER WALL BASE.

CODE INFORMATION MODEL CODES: 2018 International Building Code 2018 International Plumbing Code 2018 International Mechanical Code 2018 International Fuel Gas Code 2018 International Residential Code

2018 International Fire Code 2017 National Electrical Code ICC/ANSI All7.1-2009, Accessible and Usable Buildings and Facilities

BUILDING TYPE: TOTAL SQUARE FOOTAGE: 1,200 S.F. OCCUPANT LOAD:

TYPE V-B OCCUPANCY CLASSIFICATION: B \*CARRY-OUT ONLY. NO IN-STORE DINING. KITCHEN PREP: 1/200 x 1,028 S.F. = 5 STORAGE: 1/300 x 172 S.F. = 1

SPRINKLER STATUS:

TOTAL OCCUPANTS: 6 NON-SPRINKLERED

© 2022 h|d Architecture, LLC

## FLOOR PLAN | 1/4" = 1'-0"

•

•

sh

 $\Phi$ 

Date

**ARCHITECTURE** 

State Certificate of Authority Number:

Gregory D. Highbarger - Architect

**MEP CONSULTANT** 

License - Missouri A-7530

5BY5 Engineers, LLC

1100 Main Street, Floor 4

Kansas City, MO 64105

(913) 689-9449

15225 Broadmoor Street

Overland Park, KS 66223

h|d Architecture, LLC

1/23/2022 22-001 Job Number Drawn By Checked By Revisions Number Date

Description

ARCHITECTURAL PLANS & DETAILS

2 INTERIOR ELEVATION

### LINETYPES LEGEND: ABBREVIATIONS LEGEND: ----- NEW AFF ABOVE FINISHED FLOOR --- NEW - ON ROOF ABOVE FINISHED GRADE ----- EXISTING AHU AIR HANDLING UNIT ---- EXISTING - ON ROOF APD AIR PRESSURE DROP ---- DEMOLITION BUILDING AUTOMATION SYSTEM CONSTANT AIR VOLUME CFM CUBIC FEET PER MINUTE DUCTWORK LEGEND: CHWR CHILLED WATER RETURN CHWS CHILLED WATER SUPPLY → DUCT (SINGLE LINE) CONDENSING UNIT CWR CONDENSER WATER RETURN DUCT (DOUBLE LINE) CWS CONDENSER WATER SUPPLY DIRECT DIGITAL CONTROL ROUND O/A OR S/A DOWN **EXISTING** EXHAUST AIR ENTERING AIR TEMPERATURE ROUND O/A OR S/A UP EXHAUST FAN EXHAUST GRILLE ROUND E/A OR R/A DOWN EXTERNAL STATIC PRESSURE ENTERING WATER TEMPERATURE FCU FAN COIL UNIT ROUND E/A OR R/A UP FFA FROM FLOOR ABOVE FROM FLOOR BELOW RECTANGULAR O/A OR S/A DOWN FPM FEET PER MINUTE FT.WG FEET WATER GAUGE RECTANGULAR O/A OR S/A UP GPM GALLONS PER MINUTE HEATING CAPACITY HORSEPOWER RECTANGULAR E/A OR R/A DOWN HPC HIGH PRESSURE CONDENSATE (>30 PSIG) HPS HIGH PRESSURE STEAM (>30 PSIG) RECTANGULAR E/A OR R/A UP HUM HUMIDIFIER HWR HEATING WATER RETURN O/A OR S/A DIFFUSER HWS HEATING WATER SUPPLY IFB INTEGRAL FACE AND BYPASS IN.WG INCHES WATER GAUGE E/A OR R/A GRILLE LEAVING AIR TEMPERATURE LPC LOW PRESSURE CONDENSATE (<15 PSIG) LPS LOW PRESSURE STEAM (<15 PSIG) LWT LEAVING WATER TEMPERATURE AIR DEVICE WITH FLEX DUCT CONNECTION MAX MAXIMUM MBH 1,000 BTUH MIN MINIMUM AIR DEVICE WITH HARD DUCT CONNECTION MEDIUM PRESSURE CONDENSATE (15<MPC<30 PSIG) MEDIUM PRESSURE STEAM (15<MPS<30 PSIG) NOISE CRITERIA FLEXIBLE CONNECTION TO EQUIPMENT OUTDOOR AIR PUMPED STEAM CONDENSATE DUCT BREAK/CONTINUATION QUANTITY RETURN AIR RELIEF AIR MANUAL BALANCING DAMPER REFR REFRIGERANT RETURN FAN

MOTOR-OPERATED DAMPER

BACKDRAFT DAMPER

FIRE/SMOKE DAMPER

SMOKE DAMPER

ANNOTATION LEGEND:

<u>ABC-1</u> EQUIPMENT / FIXTURE TAG

CONNECT TO EXISTING

— AIR FLOW DIRECTION

T THERMOSTAT

PLAN NOTE

S-1 G/R/D TAG 8Ø NECK SIZE

300 AIR FLOW (CFM)

RETURN GRILLE ROOFTOP UNIT

SUPPLY DIFFUSER

TO FLOOR ABOVE

TO FLOOR BELOW

TO ROOF ABOVE

SENSIBLE COOLING CAPACITY

TOTAL COOLING CAPACITY

TOTAL STATIC PRESSURE

WATER PRESSURE DROP

VARIABLE FREQUENCY DRIVE

VARIABLE AIR VOLUME

SUPPLY AIR

STEAM

VELOCITY

STM

TFA

TFB

)		
		160
	TAG	
	TAG	N
	RTU-1	
	NOTES:	
	1. PROVID	DE W
	2. PROVID	DE W

						SUPPLY	FAN				9	COOLING			HEA	ATING (GAS	)	ELE	CTRICAL		WEIGHT	
TAG	MANUF	MODEL	SERIES	TONS	CFM	OA CFM	НР	ESP (IN)	TYPE	TOT CAP (MBH)	SENS CAP (MBH)	EAT (DB/WB)	) LAT (DB/WB)	IEER (MIN)	OUTPUT (MBH)	INPUT (MBH)	STAGES	VOLTAGE	MCA	МОСР	(LBS)	NOTES
RTU-1	YORK	ZR090	SUNPRO	7.5	2700	900	3	0.6	R-410A	90	64.8	80/67	59.4/57.2	13.8	144	180	2	208/3	42.4	50	1300	ALL
				J.								-1							1			
NOTES:				050 BV 141																		
		TROLLER AND					SEQUE	NCES OF OPI	ERATION.													
2. PROVID	E WITH WI-F	COMPATIBLE	7-DAY PROGRA	AMMABLE 1	THERMOST	AT.																
<ol><li>PROVID</li></ol>	E WITH FIXE	D DRY BULB TY	PE ECONOMIZE	R ASSEMBI	_Y.																	
4. PROVID	E NEW CURB	AT EXISTING C	URB LOCATION	N. CONTRAC	CTOR OPTI	ON TO PROV	IDE MAI	NUFACTERER	'S STANDARD	CURB ADAI	PTER TO CO	NNECT TO EXIS	STING ROOFTOP	UNIT CURB INS	STEAD.							
5. PROVID	E WITH NON	-POWERED WE	ATHER-PROOF	DUPLEX RE	CEPTACLE																	
6. PROVID	E WITH 2" TH	HICK, MINIMUN	MERV-8 FILTE	ERS.																		
7. PROVID	E WITH FACT	TORY-MOUNTE	D RETURN AIR	SMOKE DET	TECTOR.																	
8. PROVID	E WITH CON	DENSER COIL G	UARDS.																			
9. UNIT SIZ	ZED FOR 100°	°F AMBIENT CC	NDENSING TEN	MPERATUR	E.																	
10. PROVID	E WITH MAN	NUFACTURER'S	STANDARD DIS	CONNECT	SWITCH.																	
		GAS REHEAT C				OL SEQUENC	CE.															
		UNTED HUMID																				
		HINGED AND T					DR ASSEI	MRIV														
13.110010	L ICIO WITH	THINGED AND I	O O ELOS ACCES	S WITH SEI	DE OUT DE	O TYLIN IVIO I C	A AJJEI	TIDET.														

ROOFTOP UNIT SCHEDULE

<u>CONVEYOR</u>

350

<u>R-1</u> <u>R-1</u> <u>R-1</u> 24x24 24x24 24x24

22x12

<u>GELATO</u>

300

\_<u>S-1</u> 10"ø

<u>DRINKS</u>

<u>S-1</u> 10"ø

300

S-1 ORDER 10" OCUNTER

- 12x12

TAG	OCCUPANCY CLASSIFICATION	AREA (FT <sup>2</sup> )	OCCUPANTS (QTY)	R <sub>P</sub> (CFM/PERSON)	MIN OCCUPANT O/A FLOW (CFM)	R <sub>A</sub> (CFM/FT <sup>2</sup> )		MIN REQ'D O/A FLOW (CFM)	1	NOTES	
	WAITING 368		6	5	30	0.06	23				
RTU-1	OFFICE	39	1	5	5	0.06	3	234	900	ALL	
	KITCHEN	618	13	7.5	97.5	0.12	75				

### NOTE:

1. R<sub>P</sub> REPRESENTS PEOPLE OUTDOOR AIRFLOW RATE IN BREATHING ZONE PER TABLE 403.3.
2. R<sub>A</sub> REPRESENTS AREA OUTDOOR AIRFLOW RATE IN BREATHING ZONE PER TABLE 403.3.

	GRILLES, REGISTERS AND DIFFUSERS													
TAG	MANUFACTURER	MODEL	MOUNTING	FACE SIZE	MAX NC	MAX DP	NOTES							
S-1	PRICE	SCD	CEILING	24x24	30	0.1	ALL							
R-1	PRICE	PDDR	CEILING	24x24	30	0.1	3,4							

4. FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.

### NOTES:

NECK SIZE SHOWN ON PLANS.
 4 WAY THROW UNLESS INDICATED OTHERWISE ON PLAN

4 WAY THROW UNLESS INDICATED OTHERWISE ON PLANS.
 BAKED ENAMEL FINISH, WHITE TO MATCH CEILING/WALL COLOR. VERIFY WITH ARCHITECT PRIOR TO ORDER.

### — MECHANICAL PLAN NOTES:

| X | X | X |

<u>DISH PIT</u>

REMAIN

EXISTING

350

<u>8'-0" TRIPLE SINK</u>

12x12

18x12

<u>S−1</u> ⊆ 8"ø S MECHANICAL I LAN IN

HORIZONTALLY AS SHOWN.

- EXISTING BATHROOM TO REMAIN. NO NEW WORK.
   PROVIDE NEW ROOFTOP UNIT AT EXISTING ROOFTOP UNIT LOCATION. PROVIDE NEW ROOFTOP UNIT CURB AS
- REQUIRED.

  3. PROVIDE NEW THERMOSTAT WHERE INDICATED ON PLAN. PROVIDE NEW CONTROL WIRING AS REQUIRED TO

ACCOMMODATE NEW LOCATION. WIRE TO HVAC UNIT

4. EXTEND SUPPLY AND RETURN AIR DROPS FROM RTU'S TO BELOW STRUCTURE. EXTEND SUPPLY DUCT

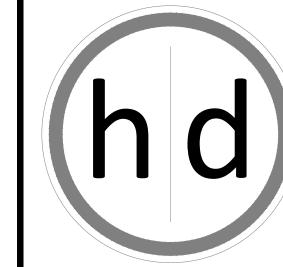
CONTROLLER PER INSTALLATION INSTRUCTIONS.

- 5. ROUTE EXHAUST DUCT FROM HOOD TO ROOF MOUNT UPBLAST EXHAUST FAN. PROVIDE ROOF/WALL PENETRATION AND VENT CAP PER MANUFACTURER'S RECOMMENDATIONS. LOCATE DISCHARGE AT MINIMUM OF 10'-0" FROM ANY BUILDING OPENINGS, OUTDOOR AIR INTAKES OR FIRE SEPARATIONS. SEE KITCHEN EXHAUST EQUIPMENT DRAWINGS FOR INFORMATION RELATED TO EXHAUST FANS, HOODS, AND THEIR INSTALLATION. KITCHEN EXHAUST SYSTEM DRAWINGS PROVIDED AS PART OF THIS DRAWING SET ARE FOR INFORMATIONAL PURPOSES ONLY. COORDINATE WITH APPROVED SHOP DRAWINGS
- 6. INSTALL KITCHEN EXHAUST HOODS AND DUCTWORK FROM HOOD TO EXHAUST FAN PER MANUFACTURER'S RECOMMENDATIONS. SEE KITCHEN EXHAUST DRAWINGS FOR INFORMATION RELATED TO EXHAUST FAN AND INSTALLATION. KITCHEN EXHAUST SYSTEM DRAWINGS PROVIDED AS PART OF THIS DRAWING SET ARE FOR INFORMATIONAL PURPOSES ONLY. COORDINATE WITH APPROVED SHOP DRAWINGS.
- 7. NEW KITCHEN EXHAUST HOOD SYSTEM TO BE PROVIDED BY OWNER. HOOD SHALL BE FULLY COMPLIANT WITH THE 2018 INTERNATIONAL MECHANICAL CODE SECTION 506 AND INCLUDE THE FOLLOWING: EXHAUST HOOD WITH DIMENSIONS THAT EXTEND MINIMUM OF 6" BEYOND THE APPLIANCES IT SERVES, HOOD EXHAUST FAN AND EXHAUST CONNECTION AND HOOD MAKE—UP AIR UNIT AND SUPPLY PLENUM WITH MAKE—UP AIR CONNECTIONS. EXHAUST DUCTWORK SHALL BE BLACK IRON DUCTWORK WITH 2 LAYERS OF FIRE WRAP AS REQUIRED BY SECTION 506 OF THE INTERNATIONAL MECHANICAL CODE.

### MECHANICAL GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION, AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS, AND OTHER TRADES PRIOR TO START OF WORK.
- MECHANICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR REQUIRED ELECTRICAL POWER WIRING AND ROUGH—IN FOR LOW—VOLTAGE CONTROL WIRING. PROVIDE ALL CONTROL WIRING AND FINAL CONTROL DEVICE (E.G. THERMOSTATS).
- FABRICATE AND INSTALL DUCTWORK PER SMACNA RECOMMENDATIONS FOR THE PRESSURE CLASSIFICATIONS ENCOUNTERED.
   LOW PRESSURE SUPPLY AIR: +2.0 IN.WG
   RETURN AIR: -2.0 IN.WG
   EXHAUST AIR (UPSTREAM OF FAN): -2.0 IN.WG
   EXHAUST AIR (DOWNSTREAM OF FAN): +1.0 IN.WG
- PROVIDE MITERED ELBOWS AT CHANGES IN DIRECTION IN RECTANGULAR DUCTWORK. PROVIDE TURNING VANES IN ALL ELBOWS WHERE AIRFLOW CHANGES DIRECTION AT ANGLES 45° AND GREATER, EXCEPT FOR RETURN AIR TRANSFER DUCTS.
- PROVIDE DUCT WRAP INSULATION FOR ALL ROUND AND RECTANGULAR SUPPLY AIR DUCTWORK. DUCT WRAP INSULATION SHALL BE 2" THICK, MINIMUM R-6.0 FIBERGLASS DUCT WRAP WITH VAPOR BARRIER.
- CONTRACTOR OPTION: PROVIDE INTERNAL LINER INSULATION FOR SUPPLY AIR DUCTWORK. INTERNAL LINER INSULATION SHALL BE 1" THICK, 2 LB/FT<sup>3</sup> ACOUSTICAL DUCT LINER INSULATION WITH MINIMUM R-6.0. DUCT LINER IS NOT ALLOWED FOR HOSPITAL USE.
- PROVIDE INTERNAL LINER INSULATION FOR ALL RECTANGULAR RETURN AIR TRANSFER DUCTWORK. INTERNAL LINER INSULATION SHALL BE 1" THICK, 2 LB/FT<sup>3</sup> ACOUSTICAL DUCT LINER INSULATION.
- DUCT DIMENSIONS SHOWN ON THE PLANS INDICATE THE FREE AREA DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO MEET FREE AREA DIMENSIONS WITH LINER INSTALLED.
- FLEXIBLE DUCTWORK SHALL HAVE 2" THICK, MINIMUM R-6.0 INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH FOR SUPPLY AIR APPLICATIONS AND 3'-0" IN LENGTH FOR RETURN AIR AND EXHAUST AIR APPLICATIONS
- AIR APPLICATIONS.
   PROVIDE BALANCING DAMPERS IN DUCT TAKE—OFFS TO AIR DEVICES IN LAY—IN CEILINGS, IN THE NECKS OF AIR DEVICES IN GYP BOARD CEILINGS, AND IN THE NECKS OF
- SIDE WALL AIR DEVICES FOR PROPER AIR BALANCING.

   TOILET ROOM EXHAUST FANS SHALL BE AS SCHEDULED. PROVIDE A MINIMUM OF 75 CFM EXHAUST PER FLUSH FIXTURE.
- COORDINATE ALL REQUIRED ROOF PENETRATIONS WITH ROOFING CONTRACTOR TO AVOID ROOF WARRANTY CONFLICTS.
- VERIFY AVAILABLE SPACE ABOVE ALL CEILINGS PRIOR TO FABRICATION OR INSTALLATION OF ANY DUCTWORK. COORDINATE DUCT INSTALLATION WITH OTHER TRADES.
- ALL DIMENSIONS SHOWN ON PLAN ARE IN INCHES, UNLESS EXPLICITLY LABELED OTHERWISE.
- PROVIDE A COMPLETE TEST AND BALANCE BY A NEBB CERTIFIED TEST AND BALANCE AGENCY.
- PROVIDE ACCESS PANELS AND ADEQUATE CLEARANCE FOR ACCESS TO ALL EQUIPMENT, VALVES, DAMPERS AND DEVICES.
- INSPECT ALL EXISTING MECHANICAL EQUIPMENT TO REMAIN. REPORT ANY DEFICIENCIES TO OWNER PRIOR TO START OF WORK.
- LABEL ALL DUCTWORK, PIPING, MAINTENANCE DEVICES, AND EQUIPMENT WITH MANUFACTURER STANDARD LABELI SYSTEMS. COORDINATE WITH OWNER FOR FINAL EQUIPMENT DESIGNATIONS.



ARCHITECTURE

Overland Park, KS 66223

h | d Architecture, LLC

State Certificate of Authority Number:

15225 Broadmoor Street

Name - Gregory D. Highbarger License -Missouri - 007530

MEP CONSULTANT

5BY5 Engineers, LLC 1100 Main Street, Floor 4 Kansas City, MO 64105 (913) 689-9449



# Pizzeria E Lakewood Boulevar Summit, MO 64064

S

7

Date 1/14/2022
Job Number 22-001
Drawn By
Checked By

Revisions
Number Date Description

\/\

The street of th

### LINETYPES LEGEND:

----- NEW - ABOVE SLAB --- NEW - BELOW SLAB EXISTING — ABOVE SLAB

---- EXISTING - BELOW SLAB

### PIPING LEGEND:

---- DEMOLITION

G— ELBOW DOWN O-→ ELBOW UP

<del>C</del> TEE DOWN

**∞**- P-TRAP

⊱**-O-**→ ELBOW UP 

BALL VALVE

GLOBE CLOBE VALVE

BFLY → BUTTERFLY VALVE

GATE CATE VALVE

CHECK VALVE

 CHECK VALVE

**₩** BALANCING VALVE

~₩ PRESSURE REDUCING VALVE

**H**VI GAS COCK

**□烙** RELIEF VALVE

**├** WYE-STRAINER

 $\rightarrow$  AIR VENT (MANUAL / AUTOMATIC) FLOW DIRECTION

← PIPE BREAK / CONTINUATION

FLOOR DRAIN

FLOOR SINK

FLOOR CLEANOUT + HOSE BIBB

ANNOTATION LEGEND:

<u>ABC-1</u> EQUIPMENT / FIXTURE TAG PLAN NOTE

CONNECT TO EXISTING

### ABBREVIATIONS LEGEND:

AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE BOTTOM OF PIPE BATHTUB CFH CUBIC FEET PER HOUR CLEANOUT DOMESTIC COLD WATER DRINKING FOUNTAIN DOWN DSN DOWNSPOUT NOZZLE EXISTING EXPANSION TANK ELECTRIC WATER COOLER EYE WASH STATION FCO FLOOR CLEANOUT FLOOR DRAIN FINISHED FLOOR

FFA FROM FLOOR ABOVE FFB FROM FLOOR BELOW FLOOR SINK GREASE INTERCEPTOR

GPM GALLONS PER MINUTE HOSE BIBB HB HORSEPOWER HWR HOT WATER RECIRCULATION INVERT ELEVATION

IN.WG INCHES WATER GAUGE JANITOR SINK LINT INTERCEPTOR LAUNDRY SINK LAVATORY

MAXIMUM MAXMB MOP BASIN

1,000 BTUH MBH MINIMUM MIN NATURAL GAS NON-FREEZE HOSE BIBB NRH NON-FREEZE ROOF HYDRANT OVERFLOW ROOF DRAIN

QUANTITY ROOF DRAIN

RECIRCULATION PUMP SANITARY WASTE

SHOWER SINK SERVICE SINK SEWAGE PUMP TRENCH DRAIN TO FLOOR ABOVE TO FLOOR BELOW

THERMOSTATIC MIXING VALVE

TO ROOF ABOVE TSP TOTAL STATIC PRESSURE UR VENT WATER CLOSET WATER HEATER WH

WCO WALL CLEANOUT

WPD WATER PRESSURE DROP

### PLUMBING GENERAL NOTES:

 DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION, AS WELL AS COORDINATION REQUIREMENTS COORDINATE ALL PLUMBING WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS, AND OTHER TRADES PRIOR TO BID OR START OF WORK.

 PLUMBING WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

 PRIOR TO START OF WORK, CONTRACTOR SHALL CAMERA ALL EXISTING UNDERGROUND SANITARY SEWER LINES. VERIFY UNDERGROUND PIPING LOCATION, DEPTH AND FLOW DIRECTION. REPORT ANY PIPING DAMAGE OR LOCATION DISCREPANCIES TO ENGINEER AND/OR OWNER PRIOR TO START OF WORK.

 EXACT LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE VERIFIED PRIOR TO ANY INSTALLATION OF CONNECTIONS THEREOF. ALL CONNECTIONS TO EXISTING UTILITIES (E.G. DOMESTIC WATER, SEWER, VENT, AND NATURAL GAS) SHALL BE MADE WITH APPROVAL OF THE ADMINISTRATIVE AUTHORITY AND THE RESPECTIVE UTILITY COMPANIES.

 SANITARY WASTE, VENT, AND STORM PIPING BELOW GRADE SHALL BE SCHEDULE 40 PVC WITH SOLVENT-WELDED

 SANITARY WASTE, VENT, AND STORM PIPING ABOVE GRADE SHALL BE NO-HUB CAST IRON IN RETURN AIR PLENUM APPLICATIONS. PVC OR ABS PIPING CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.

 SLOPE SANITARY PIPING AS FOLLOWS: 1/4" PER FOOT FOR PIPE SIZES 2-1/2" AND SMALLER, AND 1/8" PER FOOT FOR PIPE SIZES 3" AND LARGER.

 COORDINATE CONDENSATE DRAIN REQUIREMENTS WITH THE HVAC CONTRACTOR AND OTHER TRADES.

 CONDENSATE DRAIN PIPING SHALL BE TYPE M COPPER PIPING WITH WROUGHT FITTINGS AND SOLDERED JOINTS IN RETURN AIR PLENUM APPLICATIONS. PVC CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.

 SLOPE CONDENSATE DRAIN PIPING AS FOLLOWS: 1/4" PER FOOT FOR ALL PIPE SIZES.

 PROVIDE WATER SUPPLY SHUT-OFF VALVES ON EACH TOILET ROOM GROUP AND TO MISCELLANEOUS EQUIPMENT.

 PROVIDE SIZE "A" WATER HAMMER ARRESTORS ON SUPPLY TO ALL PLUMBING FIXTURES.

 PROVIDE STOP VALVES ON ALL INDIVIDUAL PLUMBING FIXTURE SUPPLIES.

 COORDINATE SELECTION OF ALL PLUMBING FIXTURES WITH ARCHITECT AND OWNER. ALL HANDICAPPED FIXTURES (WHERE REQUIRED) SHALL COMPLY WITH A.D.A.

 DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE K SOFT COPPER WITH FLARED FITTINGS OR TYPE K HARD COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.

 DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.

 WHERE ALLOWED BY CODE, CROSS-LINKED POLYETHYLENE (PEX) PIPING MAY BE USED IN LIEU OF COPPER PIPING. ADJUST SIZING OF PIPING FOR REDUCED FREE AREA OF PEX PIPING. ALL PEX PIPE ROUTED IN RETURN AIR PLENUMS MUST MEET THE FLAME SPREAD RATING AND SMOKE DEVELOPED RATING FOR SUCH APPLICATIONS.

 INSULATE NEW DOMESTIC COLD WATER, HOT WATER, HOT WATER RECIRCULATION, INTERIOR CONDENSATE DRAIN, AND STORM PIPING WITH MINIMUM 1" FIBERGLASS INSULATION (MINIMUM R-4.0) WITH PAPER COVERING.

 ALL NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE FITTINGS. SUPPORT PIPING AT INTERVALS NOT TO EXCEED THOSE LISTED IN TABLE 415.1 OF THE INTERNATIONAL FUEL GAS CODE.

 PROIVDE RUST—INHIBITOR ON PAINT ALL NATURAL GAS PIPING LOCATED EXTERIOR TO THE BUILDING.

 PROVIDE A.G.A. APPROVED GAS COCKS AND DIRT LEGS AT CONNECTIONS TO ALL GAS-FIRED EQUIPMENT.

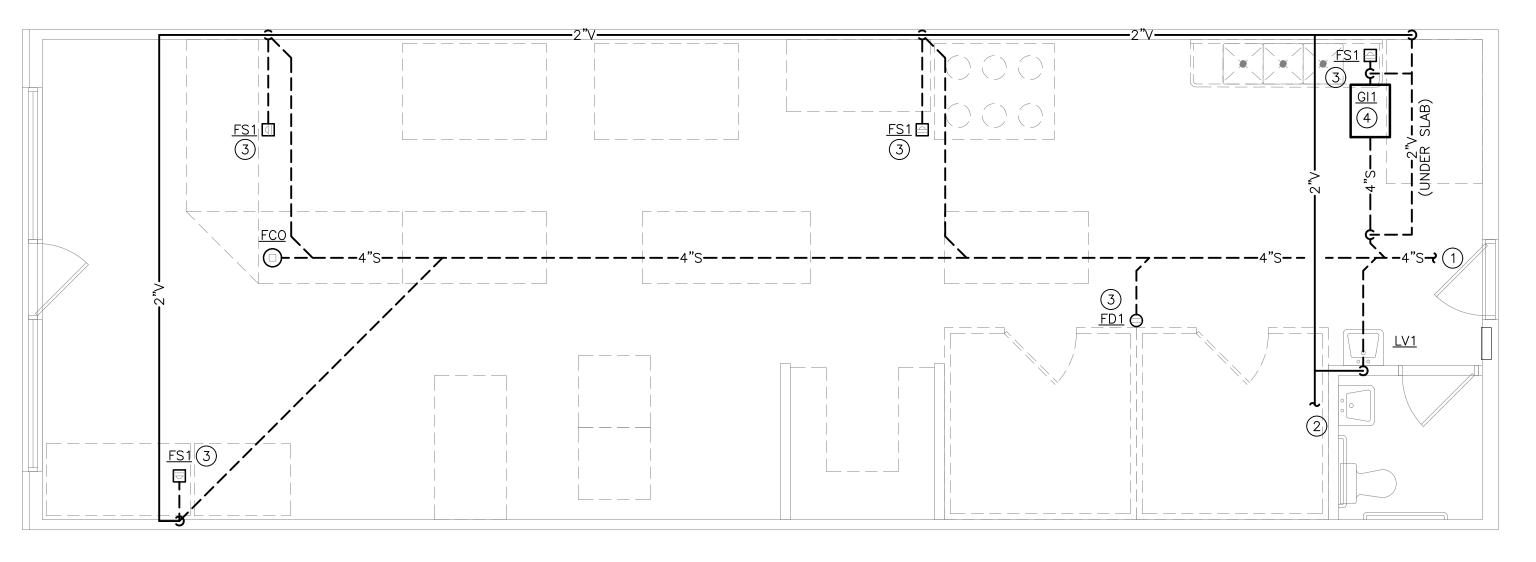
 INSTALL ALL PLUMBING EQUIPMENT, FIXTURES, VALVES, ETC. PER MANUFACTURER'S INSTALLATION REQUIREMENTS. PROVIDE ADDITIONAL APPURTENANCES PER MANUFACTURER'S INSTALLATION REQUIREMENTS.

 INSTALL CLEANOUTS AT EVERY END OF SANITARY PIPING RUNS, AT MINIMUM OF EVERY 100'-0" OF SANITARY PIPING. AND AT EVERY CHANGE IN DIRECTION GREATER THAN 45°. REFER TO SECTION 708 OF THE INTERNATIONAL PLUMBING CODE FOR ADDITIONAL REQUIREMENTS.

REDUCED PRESSURE ZONE BACKFLOW PREVENTER • ALL FLOOR DRAINS SHALL HAVE A 2" THROAT AND P-TRAP UNLESS NOTED OTHERWISE.

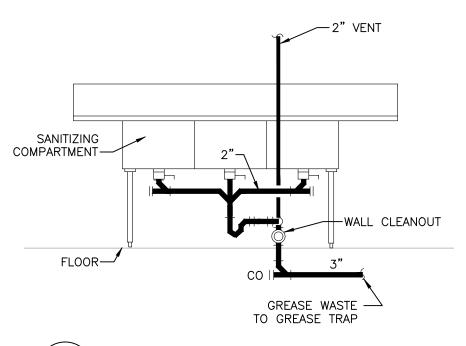
> PLUMBING CONTRACTOR SHALL INSPECT ALL PLUMBING EQUIPMENT TO REMAIN. REPORT ANY DEFICIENCIES TO OWNER PRIOR TO START OF WORK.

 CONTRACTOR SHALL LABEL ALL PIPING, VALVES AND EQUIPMENT WITH MANUFACTURER STANDARD LABELING SYSTEMS. COORDINATE WITH OWNER FOR FINAL EQUIPMENT DESIGNATIONS.



## PLUMBING WASTE & VENT PLAN SCALE: 1/4" = 1'-0"

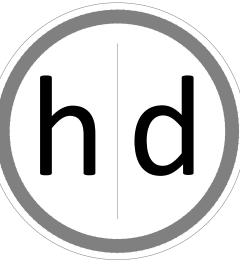




THREE COMP SINK DETAIL

### - PLUMBING PLAN NOTES:

- 1. EXTEND 4" SANITARY TO EXISTING SANITARY MAIN SERVING THIS SPACE. FIELD VERIFY EXACT LOCATION AND FLOW DIRECTION.
- 2. EXTEND NEW 3" VENT SYSTEM TO EXISTING VENT SYSTEM SERVING RESTROOM. FIELD VERIFY EXISTING LOCATION. MAINTAIN A MINIMUM OF 10'-0" FROM ANY AIR INTAKE OR BUILDING OPENING.
- 3. COORDINATE EXACT LOCATION OF ALL FLOOR SINKS AND FLOOR DRAINS WITH FINAL OWNER EQUIPMENT LAYOUT. COORDINATE EXACT ROUGH-IN LOCATION OF ALL UTILITIES WITH FINAL OWNER EQUIPMENT LAYOUT AND CAPACITIES. CONNECT UTILITIES TO ALL KITCHEN EQUIPMENT PER KITCHEN EQUIPMENT MANUFACTURER REQUIREMENTS, FIXTURE CONNECTION SCHEDULE AND LOCAL CODES. ROUTE ALL KITCHEN EQUIPMENT INDIRECT DRAINS TO NEAREST FLOOR
- 4. LOCATE GREASE INTERCEPTOR ON STAND WHERE SHOWN. COORDINATE HEIGHT OF STAND AS REQUIRED TO MEET FLOW LINE OF GREASE WASTE PIPING CONNECTING TO EXISTING SYSTEM. PROVIDE FLOW CONTROL DEVICE ON GREASE INTERCEPTOR INLET WHERE SHOWN. ALL KITCHEN DRAINAGE SHALL ENTER THE FLOW CONTROL DEVICE BEFORE ENTERING THE GREASE INTERCEPTOR. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL GREASE TRAP AND VENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 5. EXTEND COLD WATER DOWN TO BEVERAGE SYSTEM. CONNECT TO BEVERAGE SYSTEM THROUGH A BEVERAGE RATED DOUBLE-CHECK VALVE BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODE. COORDINATE WITH FIXTURE CONNECTION SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- 6. PROVIDE NEW NATURAL GAS SERVICE WHERE SHOWN. REFER TO NATURAL GAS LOAD SCHEDULE FOR DISTANCE, CAPACITY AND SIZING DETAILS.
- 7. EXTEND NATURAL GAS TO ROOFTOP UNIT ON ROOF. PROVIDE DIRT LEG AND GAS COCK AT ROOFTOP UNIT CONNECTION. REFER TO ROOFTOP UNIT INSTALLATION INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS. COORDINATE WITH HVAC CONTRACTOR.
- 8. LOCATE WATER HEATER WHERE SHOWN. CONNECT WATER PIPING AND EXPANSION TANK TO WATER HEATER SYSTEM PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. CONNECT NATURAL GAS TO WATER HEATER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND LOCAL CODE. EXTEND FLUE/VENT PIPING AND COMBUSTION AIR PIPING TO ROOF AND LOCATE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 9. EXTEND 1-1/2" NATURAL GAS DOWN TO SERVE COOKLINE STOVE/OVEN COMBO. PROVIDE SOLENOID VALVE AS PART OF THE KITCHEN HOOD SYSTEM FOR NATURAL GAS SUPPLY TO ALL EQUIPMENT. VALVE SHALL CLOSE IN THE EVENT THAT THE HOOD ANSUL SYSTEM IS DISCHARGED. COORDINATE WITH KITCHEN EXHAUST HOOD SYSTEM MANUFACTURER.
- 10. EXTEND 3/4"CW TO EXISTING COLD WATER SERVING THIS SPACE. FIELD VERIFY EXACT LOCATION.



**ARCHITECTURE** 

15225 Broadmoor Street Overland Park, KS 66223 h|d Architecture, LLC

State Certificate of Authority Number:

Name - Gregory D. Highbarger License -Missouri - 007530

**MEP CONSULTANT** 

5BY5 Engineers, LLC 1100 Main Street, Floor 4 Kansas City, MO 64105 (913) 689-9449



7

• •

Sh

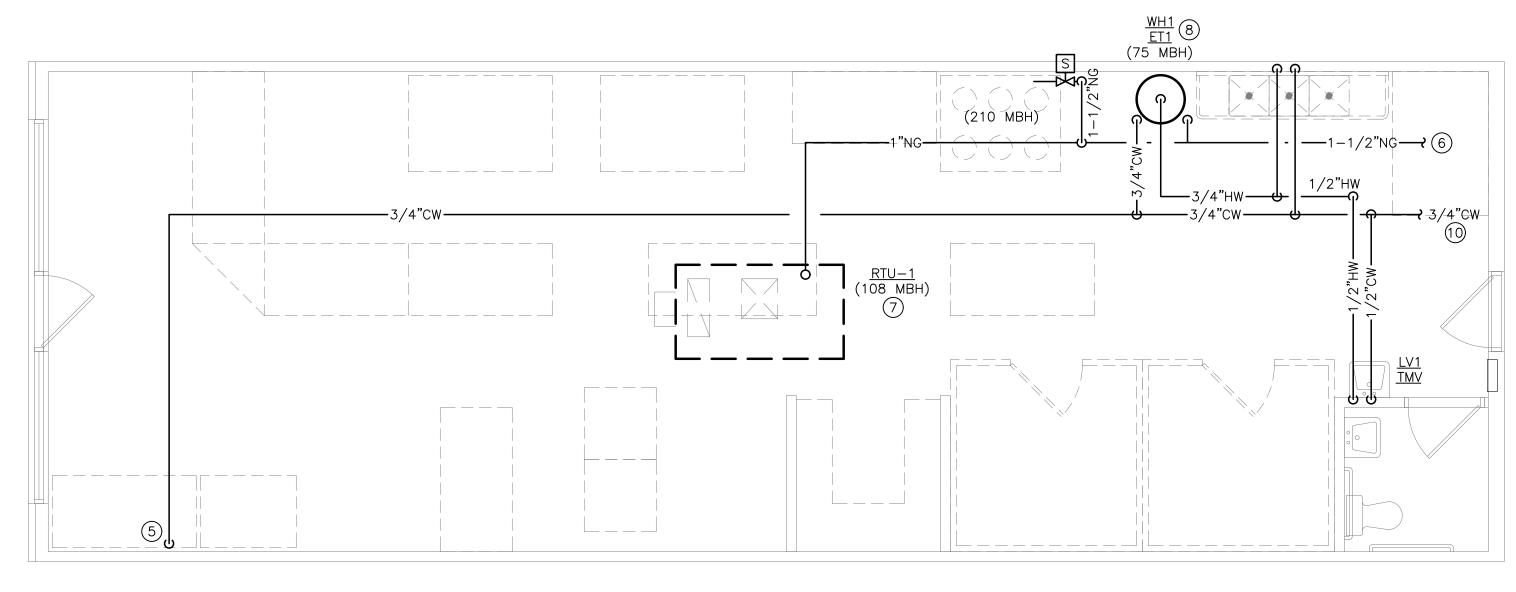
1/14/2022 Job Number 22-001 Drawn By Checked By Revisions Number Date Description

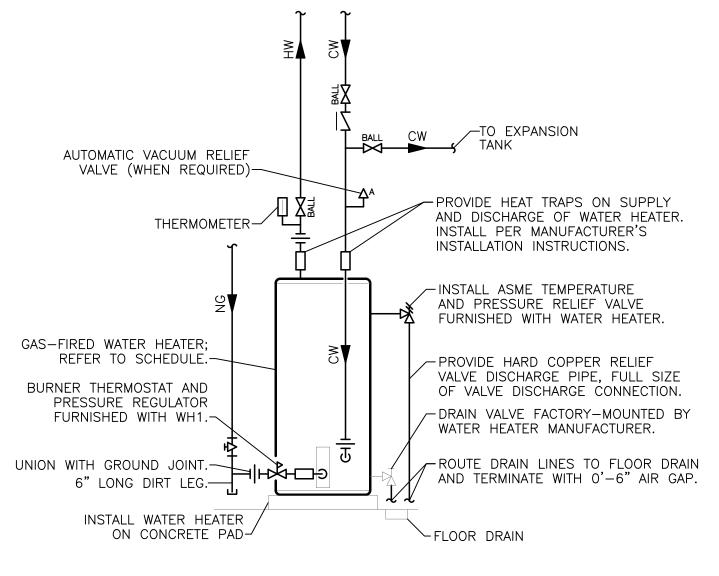
### PLUMBING FIXTURE SCHEDULE:

INFORMATION BELOW IS FOR GENERAL FIXTURE REQUIREMENTS ONLY. PLUMBING CONTRACTOR SHALL COORDINATE WITH OWNER AND ARCHITECT FOR EXACT FIXTURE REQUIRED FOR THE PROJECT. COORDINATE WITH OWNER FOR INFORMATION ON PROCURING FIXTURES AND ASSOCIATED COSTS. CONTRACTOR SHALL BE CLEAR AS TO WHAT FIXTURES ARE INCLUDED IN THEIR PROPOSED COSTS.

FIXTURES IN THIS SCHEDULE, OR THE APPROVED EQUIVALENT, SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER REQUIREMENTS.

- EXPANSION TANK: 150 PSIG MAXIMUM WORKING PRESSURE, 4.5-GALLON CAPACITY, 0.45 MAXIMUM ACCEPTANCE FACTOR, AND 3/4" PIPE CONNECTION. SET THE AIR CHARGE PRESSURE TO MATCH EXISTING WATER SYSTEM PRESSURE.
- FLOOR CLEANOUT: CAST IRON BODY, FLASHING FLANGE WITH CLAMPING COLLAR, ABS PLUG, AND ADJUSTABLE, ROUND, SECURED, HEAVY DUTY SCORIATED NICKEL BRONZE TOP. INSTALL PER MANUFACTURER'S REQUIREMENTS BASED ON FLOORING TYPE USED. PROVIDE ACCESSORIES AS REQUIRED FOR PROPER INSTALLATION. COORDINATE FINISH TYPE WITH ARCHITECTURAL PLANS.
- FLOOR SINK: 6" DEEP (MIN) CAST IRON BODY WITH ACID RESISTING ENAMELED INTERIOR, ANCHOR FLANGE WITH SEEPAGE HOLES, CLAMP COLLAR, ALUMINUM SEDIMENT BUCKET AND NICKEL BRONZE RIM AND HALF GRATE. USE PUSH ON JOINT OF OUTLET SIZE AS SHOWN ON PLANS. PROVIDE ADAPTER FOR CONNECTION TO DRAIN PIPING MATERIAL USED.
- GREASE INTERCEPTOR: SCHIER MODEL GB3 BELOW GRADE SEAMLESS POLYETHYLENE TANK TYPE GREASE INTERCEPTOR WITH COVER. INTERCEPTOR SHALL BE CERTIFIED TO ASME A112.14.3 AND CSA B481.1. PROVIDE WITH BUILT-IN TEST CAPS WATER/GAS-TIGHT SEAL ON COVER. PROVIDE PUMPOUT PORT KIT AND ASSOCIATED FLOW RISER. FLOW RATE OF 50 GPM AND 270 LBS OF GREASE CAPACITY. 4" INLET AND OUTLET. PROVIDE FLOW RESTRICTORS (MAX 50 GPM) ON ALL DISCHARGE DRAINS SERVING THIS INTERCEPTOR.
- JANITOR'S SINK: 24"W x 24"L x 10"H MOLDED FIBER BASIN WITH INTEGRAL STAINLESS STEEL DRAIN BODY. • FAUCET: FAUCET WITH WALL BRACE, INTEGRAL VACUUM BREAKER,
- PAIL HOOK, AND 3/4" MALE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD. • TRIM: TYPE 304 20-GAUGE STAINLESS STEEL WALL SURROUNDS, 3'-0" LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK, EXTRUDED VINYL BUMPER GUARD, AND 2'-0" STAINLESS STEEL MOP HANGER.
- WALL-MOUNTED LAVATORY (ADA ACCESSIBLE): RECTANGULAR WALL MOUNTED WHITE VITREOUS CHINA FIXTURE WITH FAUCET LEDGE AND FRONT OVERFLOW.
- FAUCET: FAUCET WITH 4" CENTERSET, VANDAL—RESISTANT, WITH LEVER HANDLES AND 0.5 GPM AERATOR. TRIM: GRID DRAIN WITH TAILPIECE, QUARTER-TURN BALL TYPE ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS. 1-1/4" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR, AND INSULATION KIT FOR WATER AND WASTE PIPES.
- THERMOSTATIC MIXING VALVE: SOLID BRASS BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.5 GPM. MAXIMUM TEMPERATURE STOP SET FOR 110 DEGREES. MOUNT BELOW THE PLUMBING FIXTURE WHERE INDICATED ON
- WATER HEATER: NATURAL GAS, 60 GALLON, 75 MBH INPUT, 90°F TEMPERATURE RISE AND 140°F OPERATING TEMPERATURE. PROVIDE ALL WATER CONNECTIONS, VALVES, AND SPECIALS PER
- MANUFACTURER'S INSTALLATION REQUIREMENTS. • ELECTRICAL REQUIREMENTS: 120 VOLT, SINGLE PHASE POWER.



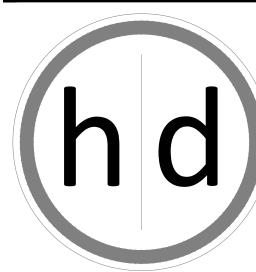


NOTES:

• INSTALL PER MANUFACTURER'S REQUIREMENTS.

### - PLUMBING PLAN NOTES:

- 1. EXTEND 4" SANITARY TO EXISTING SANITARY MAIN SERVING THIS SPACE. FIELD VERIFY EXACT LOCATION AND FLOW DIRECTION.
- 2. EXTEND NEW 3" VENT SYSTEM TO EXISTING VENT SYSTEM SERVING RESTROOM. FIELD VERIFY EXISTING LOCATION. MAINTAIN A MINIMUM OF 10'-0" FROM ANY AIR INTAKE OR BUILDING OPENING.
- 3. COORDINATE EXACT LOCATION OF ALL FLOOR SINKS AND FLOOR DRAINS WITH FINAL OWNER EQUIPMENT LAYOUT. COORDINATE EXACT ROUGH-IN LOCATION OF ALL UTILITIES WITH FINAL OWNER EQUIPMENT LAYOUT AND CAPACITIES. CONNECT UTILITIES TO ALL KITCHEN EQUIPMENT PER KITCHEN EQUIPMENT MANUFACTURER REQUIREMENTS, FIXTURE CONNECTION SCHEDULE AND LOCAL CODES. ROUTE ALL KITCHEN EQUIPMENT INDIRECT DRAINS TO NEAREST FLOOR
- 4. LOCATE GREASE INTERCEPTOR ON STAND WHERE SHOWN. COORDINATE HEIGHT OF STAND AS REQUIRED TO MEET FLOW LINE OF GREASE WASTE PIPING CONNECTING TO EXISTING SYSTEM. PROVIDE FLOW CONTROL DEVICE ON GREASE INTERCEPTOR INLET WHERE SHOWN. ALL KITCHEN DRAINAGE SHALL ENTER THE FLOW CONTROL DEVICE BEFORE ENTERING THE GREASE INTERCEPTOR. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL GREASE TRAP AND VENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 5. EXTEND COLD WATER DOWN TO BEVERAGE SYSTEM. CONNECT TO BEVERAGE SYSTEM THROUGH A BEVERAGE RATED DOUBLE-CHECK VALVE BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODE. COORDINATE WITH FIXTURE CONNECTION SCHEDULE FOR ADDITIONAL REQUIREMENTS.
- 6. PROVIDE NEW NATURAL GAS SERVICE WHERE SHOWN. REFER TO NATURAL GAS LOAD SCHEDULE FOR DISTANCE, CAPACITY AND SIZING DETAILS.
- 7. EXTEND NATURAL GAS TO ROOFTOP UNIT ON ROOF. PROVIDE DIRT LEG AND GAS COCK AT ROOFTOP UNIT CONNECTION. REFER TO ROOFTOP UNIT INSTALLATION INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS. COORDINATE WITH HVAC CONTRACTOR.
- 8. LOCATE WATER HEATER WHERE SHOWN. CONNECT WATER PIPING AND EXPANSION TANK TO WATER HEATER SYSTEM PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. CONNECT NATURAL GAS TO WATER HEATER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND LOCAL CODE. EXTEND FLUE/VENT PIPING AND COMBUSTION AIR PIPING TO ROOF AND LOCATE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 9. EXTEND 1-1/2" NATURAL GAS DOWN TO SERVE COOKLINE STOVE/OVEN COMBO. PROVIDE SOLENOID VALVE AS PART OF THE KITCHEN HOOD SYSTEM FOR NATURAL GAS SUPPLY TO ALL EQUIPMENT. VALVE SHALL CLOSE IN THE EVENT THAT THE HOOD ANSUL SYSTEM IS DISCHARGED. COORDINATE WITH KITCHEN EXHAUST HOOD SYSTEM MANUFACTURER.
- 10. EXTEND 3/4"CW TO EXISTING COLD WATER SERVING THIS SPACE. FIELD VERIFY EXACT LOCATION.



ARCHITECTURE

15225 Broadmoor Street Overland Park, KS 66223

h|d Architecture, LLC

State Certificate of Authority Number:

Name - Gregory D. Highbarger

**MEP CONSULTANT** 

5BY5 Engineers, LLC 1100 Main Street, Floor 4 Kansas City, MO 64105

(913) 689-9449

License -Missouri - 007530

11 2 MISCO 11

LICENSE #: PE-2014007261 BROCK CËNTLIVRE, LICENSED ENGINEER

> 7 • •

sh

1/14/2022 Job Number 22-001 Drawn By Checked By

Revisions Number Date Description

NATURAL GAS LOAD SCHEDULE CFH INPUT TOTAL CFH TAG (EACH) RTU-1 ROOFTOP UNIT 130 6 BURNER RANGE/OVEN NOTES: WH1 WATER HEATER SYSTEM TOTAL = NOTES:

A. METER DISCHARGE PRESSURE: 11 IN.WG.

C. DESIGN NATURAL GAS PIPING SYSTEM PRESSURE DROP: 0.5 IN.WG

D. INLET PRESSURE FOR ALL GAS-FIRED EQUIPMENT: 7 TO 11 IN.WG.

B. TOTAL DEVELOPED LENGTH: 100 FT.

DCVB DISHWASHERS, GLASSWASHER, WAREWASHER SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS FLOOR DRAIN 2" 2" ---ICE MAKERS / SODA DISPENSERS SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS DCVB JANITOR'S SINK TMV 1-1/2" LAVATORY - PUBLIC 1-1/2" 1/2" 1/2" TMV SINK - HANDWASH DCV: DOUBLE CHECK VALVE ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1015. DCVB: DOUBLE CHECK VALVE ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1022. RP: REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1013.

FIXTURE CONNECTION SCHEDULE

WASTE VENT

COLD

SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS

NOTES

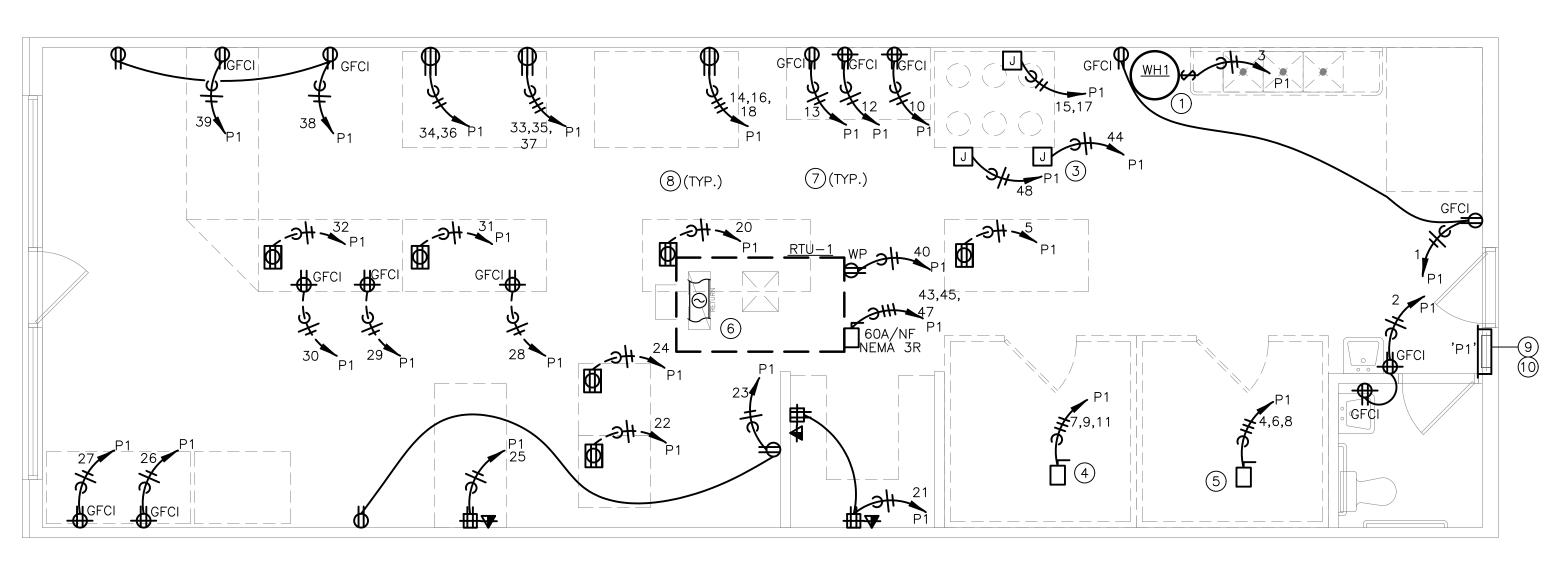
HOT

FIXTURE

CARBONATORS

TMV: POINT OF USE TYPE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1070. VB: ATMOSPHERIC TYPE VACUUM BREAKER CONFORMING TO ASSE 1020.

INSTALL BACKFLOW PREVENTION DEVICES ON EQUIPMENT AND FIXTURES PER LOCAL WATER COMPANY REQUIREMENTS. ALL BACKFLOW PREVENTERS SHALL BE IN AN ACCESSIBLE LOCATION FOR PERIODIC INSPECTION AND TESTING.



4	

							PANE	ELBO	ARD P	1						
		BUS AMPS:	400A				LOCATION	<u> </u>	ELECTRIC	AL ROOM		GRO	DUND B	US: YES		
		MAIN SIZE / T	YPE: MCB				NEMA RAT	TING:	NEMA 1			ISOL	GROL	JND BUS: NO		
		VOLTS/PHASE	E: 208Y/	120V	', 3PH, 4V	N	AFC VALU	E:	FIELD VE	RIFY		FEE	D THRU	LUGS: NO		
		MOUNTING:	SURF	ACE			AIC RATIN	G:	65,000			SEC	TIONS:	1 OF 1		
	CKT	CIRCUIT	BRE	KER	WIRE	LOAD	CONNEC	TED PER P	HASE (VA)	LOAD	WIRE	BRI	EAKER	CIRCUIT	СК	Т
NOTES	#	DESCRIPTION	AMPS	P	SIZE	(VA)	Α	В	С	(VA)	SIZE	Ρ	AMPS	DESCRIPTION	#	NOTES
	1	GEN. RECEPT.	20	1	#12	360	720			360	#12	1	20	RECEPT - RESTROOM	2	
	3	WATER HEATER WH1	20	1	#12	200		2,001		1,801					4	
GFCI	5	SALAD PREP TABLE	20	1	#12	1,800			3,601	1,801	#12	3	20	WALK-IN FREEZER	6	
	7					1,801	3,602			1,801					8	
	9	WALK-IN COOLER	20	3	#12	1,801		2,641		840	#12	1	20	DOUGH SHEETER	10	
	11					1,801			1,981	180	#12	1	20	PIZZA PREP RECEPT.	12	?
GFCI		PIZZA PREP TABLE	20	1	"	1,800	6,245			4,445					14	ļ.
		EX HOOD LTG & CNTRLS	20	2	12	432		4,877		4,445	#8	3	50	CONVEYER OVEN	16	
	17					432			4,877	4,445					18	
		SPARE DECERTABLES	20	1		0	1,200	0.000		1,200	#12	1		HOT BOXES TABLE	20	
	21	OFFICE RECEPTACLES	20	1 1	#12	1,080		2,280	1 500	1,200	#12	1		HOT BOXES TABLE	22	
	23 25	GEN. RECEPT. POS SYSTEM	20 20	1 1	#12 #12	360 900	3,420		1,560	1,200 2,520	#12 #10	1 1		HOT BOXES TABLE DISPLAY FRIG.	24	
GFCI		DRINKS - DISPLAY FRIG.	30	+	#12	2,520	3,420	2,700		180	#10	1		SANDWICH MAKER TABLE		
GFU	29	SLICER	20	+ +	#10	840		2,700	1,020	180	#12	1		GEN. RECEPT.	30	_
	31	SANDWICH MAKING TABL		+ +	#12	1,800	3,600		1,020	1,800	#12	1		BY THE SLICE COOLER	32	
	33	0,1110111111111111111111111111111111111		+	,,,,,	4,803	0,000	11,043	1	6,240	#4	2		DECK OVEN	34	
	35	DECK OVEN	50	3	#8	4,803		11,010	11,043	6,240		-		DEGIN GVEN	36	_
	37					4,803	5,163		7 1,15 15	360	#12	1	20	GEN. RECEPT.	38	
	39	GELATO DISPLAY FREEZE	ER 20	1	#12	1,800	,	1,980		180	#12	1		RTU RECEPT. (ON ROOF)	40	
	41	SPARE	20	1		0			900	900	#12	1	20	LTG	42	<u> </u>
	SECTION	ON: 2														
	43					5,091	5,591			500	#12	1		OVEN CONTROLS	44	ı.
	45	RTU-1 7.5 TON	50	3	#8	5,091		5,091		0	$\geq \leq$	$\times$	_	SHUNT TRIP SECTION	46	
	47					5,091			5,591	500	#12	1		STOVE CONTROLS	48	
		SPARE	20	1		0	0			0	$\geq \leq$	$\times$	$\sim$	SHUNT TRIP SECTION	50	
		SPARE	20	1		0		0		0		1		SPARE	52	
	53	SPARE	20	<b>1</b> ¹		0			0	0		1		SPARE	54	
		SPACE SPACE		+		0	0	0		0		1		SPARE SPACE	56	
		SPACE		-		0		0	0	0				SPACE	60	
		SPACE		+		0	0		0	0				SPACE	62	
		SPACE		+		0	-	0		0				SPACE	64	
		SPACE	<del></del>	+		0			0	0				SPACE	66	
		SPACE		+		0	0			0				SPACE	68	
	69	SPACE		+		0		0		0				SPACE	70	
	71	SPACE		$\top$		0			0	0				SPACE	72	:
	73	SPACE		$\top$		0	0			0				SPACE	74	l
		SPACE				0		0		0				SPACE	76	
		SPACE				0			0	0				SPACE	78	
		SPACE				0	0			0				SPACE	80	
		SPACE				0		0		0				SPACE	82	
	83	SPACE		$\perp$		0			0	0				SPACE	84	
			PE	RΡ	HASE SU	B-TOTALS	29,541	32,613	30,573	LEGEND:						
<del></del>			TOTAL CONNEC	TED	PANELBO	DARD (VA)		92,727		TS - VIA T	ME SW	ITCH		ST - SHUNT TR	RIP	
		ТОТ	AL CONNECTED			` ,		257		GF - GRO						
			TOTAL PANE					92,952						KING TAB IG - ISOLATED		
			TOTAL PANELB	OAR	D DEMAN	ND (AMPS)		258						CKING TAB OL - RE: ONE-L		
										GECL GRO	LIND EAL	штс	HIRREN	IT INTURRUPTER RATED CIR	CHIT BREAKER	<b>&gt;</b>

ELECTRICAL RISER NOTES:

1. RISER IS FOR REFERENCE ONLY OF EXISTING BUSWAY

BACK OF TENANT SPACE

NEW 400A 120/208V 3 PHASE 84 POLE MCB PANELBOARD

C.T. ENCLOSURE

EXISTING METERING AND C.T. ENCLOSURE

EXISTING METERING AND PANELBOARD

(P1')

1 ELECTRICAL RISER DIAGRAM
SCALE: N/A

### ELECTRICAL GENERAL NOTES:

- REFER TO SHEET E3.0 FOR ELECTRICAL GENERAL DEMOLITION NOTES AND ELECTRICAL GENERAL
- ELECTRICAL PLAN NOTES:
- PROVIDE POWER CONNECTION TO WATER HEATER CONTROLS. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT REQUIREMENTS AND EXACT LOCATION.
- 2. ROUTE HOMERUN VIA HOOD CONTROLS.
- 3. PROVIDE JUNCTION BOX FOR CONNECTION TO EXHAUST HOOD LIGHTING AND CONTROLS. COORDINATE WITH KITCHEN EQUIPMENT SUPPLIER AND MECHANICAL CONTRACTOR.
- PROVIDE POWER CONNECTION TO WALK—IN COOLER.
   CONFIRM EXACT POWER REQUIREMENTS AND LOCATION
   WITH FINAL EQUIPMENT SELECTION.
- 5. PROVIDE POWER CONNECTION TO WALK—IN FREEZER. CONFIRM EXACT POWER REQUIREMENTS AND LOCATION
- WITH FINAL EQUIPMENT SELECTION.

  6. NEW DUCT SMOKE DETECTOR FURNISHED WITH UNIT AND

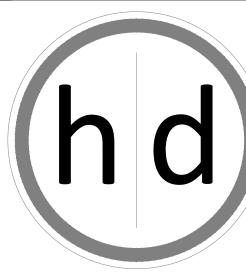
MOUNTED IN RETURN PLENUM. E.C. INSTALL TEST/RESET

7. CONFIRM RECEPTACLE REQUIRMENTS FOR ALL KITCHEN EQUIPMENT PRIOR TO INSTALL. REFERENCE MANUFACTURER SPECIFICATIONS FOR ADDITIONAL INFORMATION.

BUTTON IN ACCESSIBLE LOCATION

DEVICE TO REMAIN.

- 8. PROVIDE GFCI TYPE RECEPTACLE FOR ALL KITCHEN RECEPTACLES. FOR LARGE EQUIPMENT PROVIDE GFCI TYPE CIRCUIT BREAKER AT PANEL FOR EASE OF ACCESS.
- 9. REMOVE EXISTING PANELBOARD AND ALL ASSOCIATED CONDUIT AND CIRCUITRY BACK TO SOURCE OR TO NEARS
- 10. PROVIDE NEW 400A 120/208V 3 PHASE 4 WIRE 84
  POLE MCB PANELBOARD TO SERVE SPACE. PROVIDE NEW
  FEEDER CONNECTION FROM EXISTING BUSWAY ON BACK
  OF BUILDING TO NEW PANELBOARD. CONFIRM NEW
  PANELBOARD MAY BE INSTALLED IN GENERAL LOCATION
  SHOWN. NOTIFY ENGINEER OF DISCREPANCIES.



ARCHITECTURE

15225 Broadmoor Street Overland Park, KS 66223

h|d Architecture, LLC

State Certificate of Authority Number:

Name - Gregory D. Highbarger License -Missouri - 007530

MEP CONSULTANT

**5BY5 Engineers, LLC** 1100 Main Street, Floor 4 Kansas City, MO 64105 (913) 689-9449

BROCK
CENTLIVRE
NUMBER
PE-2014007261
J/20/22
LICENSE #: PE-2014007261
BROCK CENTLIVRE, LICENSED ENGINEER

Pizzeria E Lakewood Boulevar

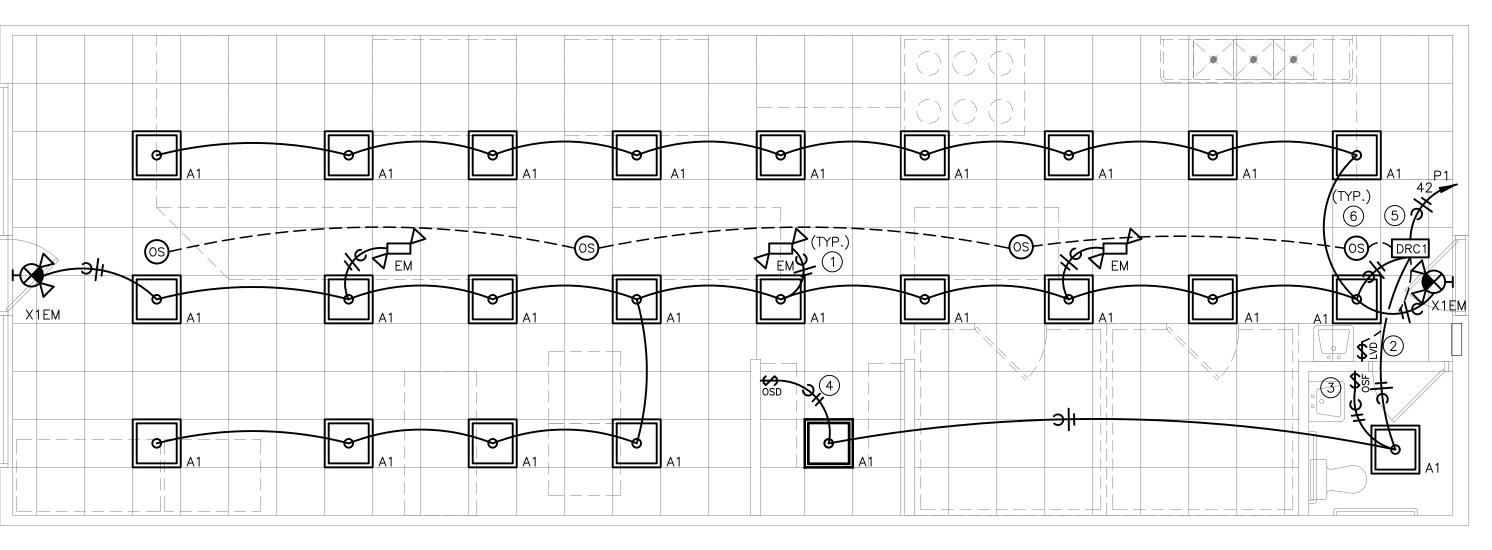
Finish

Date 1/14/2022
Job Number 22-001
Drawn By

Revisions
Number Date Description

th Floor 4105 7040776 com © 2022 h|d Architecture, LLC

5 BY 5 1100 Main Street, 4th Floor Kansas City, MO 64105 Missouri COA: 2017040776 913-689-9449 contact@5by5eng.com 5by5eng.com



LIGHT FIXTURE SCHEDULE														
TYPE	MANUFACTURER AND MODEL#	EQUAL MANUFACTURER AND MODEL#	LIGHT SOURCE	WATTS	MINIMUM LUMENS	VOLTAGE	CRI	COLOR TEMP	DIMMABLE	FINISH	DESCRIPTION	NOTES		
A1	HE WILLIAMS 50G-S-2-2-L43-9 40-F-AF12125-DIM-UNV	LITHONIA	INTEGRAL LED	34	4360	UNV	80	4000	0-10V / 10%	WHITE	2'X2' LED STATIC TROFFER.	1-5		
FM I	HE WILLIAMS - EMER/LED- WHT-SDT-D	LITHONIA - ELM6L-B-UVOLT- LTP-SDRT-	INTEGRAL LED	6	1100	UNV	80	-	0-10V / 10%	WHITE	EMERGENCY CEILING MOUNTED FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5		
X1EM	SURELITE APCH7R	LITHONIA - LHQM LED	INTEGRAL LED	10.3	-	UNV	NA	NA	NA	то	COMBINATION EMERGENCY EGRESS /SINGLE FACE LED EXIT LIGHT FIXTURE WITH BATTERY PACK, RED LETTERS AND FIELD CONFIGURED ARROWS.	1-5		
NOTES:		TECTIONIC AND OD CURETITIES		•	_							<i>i</i> :		

COORDINATE ALL LIGHT FIXTURE SELECTIONS AND/OR SUBSTITUTIONS WITH ARCHITECT, OWNER AND/OR ENGINEER PRIOR TO ORDER.

2. PROVIDE LIGHTING CONTROLS THAT ARE COMPATIBLE WITH FIXTURES PROVIDED. 3. COORDINATE WITH ARCHITECT, OWNER AND/OR ENGINEER FOR DIMMING REQUIREMENTS PRIOR TO INSTALLATION.

4. PROVIDE ALL COMPONENTS AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION. 5. EQUIVALENTS MUST BE SUBMITTED AND APPROVED PRIOR TO BID.

		LIGHTING CONTROL DEV	/ICE SCHEDULE					
TAG	MANUFACTURER AND MODEL SERIES	SENSOR DESCRIPTION	COVERAGE AREA (WxD OR RADIUS Ø)	VOLTAGE	MODE SETTINGS	TIME DELAY	DEVICE FINISH COLOR	SENSOR NOTES
WALL SWITCH	OCCUPANCY SENSO	DRS						
OS	WATTSTOPPER PW-301	SINGLE-RELAY PASSIVE INFRARED OCCUPANCY SENSOR WALL SWITCH WITH MANUAL OVERRIDE BUTTON.	MAJOR 30' x 35' MINOR 15' x 20'	120/277V	MANUAL ON AUTO OFF	5 MIN	WHITE	1
OSD	WATTSTOPPER PW-311	SINGLE-RELAY PASSIVE INFRARED DIMMABLE OCCUPANCY SENSOR WALL SWITCH WITH MANUAL OVERRIDE BUTTON.	MAJOR 30' x 35' MINOR 15' x 20'	120/277V	AUTO ON AT 50% AUTO OFF	5 MIN	WHITE	1
CEILING MOU	NTED DAYLIGHT / OC	CCUPANCY SENSORS						
OS	WATTSTOPPER LMDC-100	CEILING MOUNT ULTRASONIC DIGITAL OCCUPANCY SENSOR. 360 DEGREE COVERAGE. PLUG-AND-PLAY CONFIGURATION, (2) RJ45 PORTS, LCD DISPLAY, IR RECEIVER, CONFIGURATION BUTTONS.	ULT MAJOR 25' X 25' PIR 32' Ø	24V	-	20 MIN	WHITE	2
POWER SUPP	LIES/ROOM CONTRO	DLLERS						
DRC1	WATTSTOPPER LMRC-211	DIGITAL SINGLE-RELAY ON/OFF/DIMMING ROOM CONTROLLER. 0-10V DIMMING. MAXIMUM 20A TOTAL LOAD RATING. PLUG-AND-PLAY CONFIGURATION, (4) RJ45 PORTS, LED STATUS INDICATORS, CONFIGURATION BUTTONS, PLENUM RATED.	-	120/277V LOAD, 24VDC CONTROL OUTPUT	AUTO ON AT 50%, AUTO OFF	-	-	
LOW VOLTAG	E SWITCHES							
LVD#	WATTSTOPPER LMDM-101	DIGITAL DIMMING WALL SWITCH.	-	24VDC	-	-	WHITE	2,3,4

**GENERAL NOTES:** A. SENSOR LAYOUT BASED ON WATTSTOPPER COVERAGE PATTERNS. ADJUST QUANTITIES AND LOCATIONS FOR ALTERNATE MANUFACTURERS LISTED BELOW PER MANUFACTURER

APPROVED MANUFACTURER, CONTINGENT ON LISTINGS APPROPRIATE FOR THE APPLICATION.

. nlight, sensor switch, cooper-greengate, crestron, hubbell building automation, and leviton are considered equivalent manufactures for submission as an

DURING SHOP DRAWINGS, PROVIDE LIGHTING PLANS SHOWING LOCATION, MOUNTING HEIGHT, ORIENTATION AND COVERAGE AREAS FOR EACH OCCUPANCY SENSOR FOR REVIEW AND APPROVAL BY ENGINEER. ALSO INCLUDE ON PLANS OTHER CEILING MOUNTED SYSTEMS, SHOWING COORDINATION WITH CEILING DEVICES INCLUDING BUT NOT LIMITED TO HVAC

PROVIDE ALL SENSORS BY THE SAME MANUFACTURER.

PROVIDE COPIES OF SENSOR AND POWER SUPPLY OPERATION INSTRUCTIONS TO OWNER.

PROVIDE WALL SWITCH AND CEILING SENSORS WITH AN ADJUSTABLE TIME DELAY RANGE OF 0-30 MIN, UNO. DO NOT INSTALL LINE VOLTAGE SENSORS ON GFCI PROTECTED CIRCUITS.

FIELD-SET DEVICES TO THE ON MODE INDICATED IN TABLE, DISABLE ANY VISABLE/AUDIBLE ALERT SETTINGS, AND SET SENSITIVITIES TO MAXIMUM LEVELS. PROVIDE ALL LOW VOLTAGE WIRING BETWEEN SENSORS, DEVICES, AND POWER SUPPLIES AS REQUIRED AND PER MANUFACTURER RECOMMENDATIONS.

WHERE OCCUPANCY SENSORS USE BOTH PIR AND ULTRASONIC TECHNOLOGIES, PROGRAM OFF MODES (MAINTAIN OCCUPANCY AND RE-TRIGGER) TO TRIGGER ON A SIGNAL FROM WHERE MULTIPLE LOW VOLTAGE SWITCHES ARE CONNECTED WITHIN THE SAME SPACE, PROGRAM THE SWITCHES TO CONTROL THE LIGHTING IN THE EXACT SAME MANNER, UNO.

SENSOR NOTES: CONNECT NEUTRAL CONDUCTOR TO SENSOR.

PROVIDE CUSTOM BUTTON ENGRAVING PER ENGINEER'S DIRECTION.

PROVIDE POWER SUPPLY WITH UNSWITCHED HOT CONDUCTOR CONNECTION. COORDINATE DEVICE LOCATIONS IN FIELD. 4. NUMBER DENOTES HOW MANY SWITCHES NEEDED FOR CONTROL. (1) DIMMING SWITCH PER FIXTURE TYPE IN AREA.

### ELECTRICAL GENERAL NOTES:

REFER TO E3.0 FOR ELECTRICAL GENERAL NOTES.

ELECTRICAL LIGHTING PLAN NOTES:

ROUTE UNSWITCHED HOT TO ALL EMERGENCY LIGHT FIXTURES AND EXIT SIGNS.

2. PROVIDE DIMMABLE LOW VOLTAGE SWITCH FOR LIGHTING CIRCUITS AS SHOWN. REFERENCE SHEET E4 FOR LIGHTING CONTROL DEVICE SCHEDULE FOR FURTHER INFORMATION. 3. PROVIDE NEW OCCUPANCY SENSING WALL MOUNTED

LIGHT SWITCH. SWITCH SHALL CONTROL EXHAUST FAN AND LIGHT IN SPACE. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 AND MECHANICAL PLANS FOR ADDITIONAL INFORMATION. 4. PROVIDE NEW DIMMABLE OCCUPANCY SENSING WALL MOUNTED LIGHT SWITCH. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.

5. PROVIDE NEW ROOM CONTROLLER, CONNECT TO CEILING MOUNT SENSORS AND LOW VOLTAGE SWITCHES IN ROOM PER MANUFACTURERS RECOMMENDATIONS AND AS SHOWN ON THE DRAWINGS. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.

6. PROVIDE NEW CEILING MOUNTED OCCUPANCY SENSOR. CONNECT TO ROOM CONTROLLERS AND LOW VOLTAGE SWITCHES PER MANUFACTURERS RECOMMENDATIONS AND AS SHOWN ON DRAWINGS. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.

ARCHITECTURE

Overland Park, KS 66223 h|d Architecture, LLC State Certificate of Authority Number:

15225 Broadmoor Street

Name - Gregory D. Highbarger License -Missouri - 007530

**MEP CONSULTANT** 

5BY5 Engineers, LLC 1100 Main Street, Floor 4 Kansas City, MO 64105 (913) 689-9449



LICENSE #: PE-2014007261 BROCK CENTLIVRE, LICENSED ENGINEER

Job Number Drawn By Checked By Number Date

# LINETYPES LEGEND: ——— NEW

---- NEW
----- EXISTING OR BY OTHERS
---- DEMOLITION

### LIGHTING LEGEND

• CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4'
• CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4'
(NIGHT LIGHT OR EMERGENCY CIRCUIT)

STRIP LIGHT FIXTURE. REFER TO FIXTURE SCHEDULE FOR LENGTH.

WALL-MOUNT SCONCE OR WALL BRACKET LIGHT FIXTURE.

RECESSED WALL WASH CAN LIGHT FIXTURE.

RECESSED, SURFACE, OR STEM HUNG LIGHT

SINGLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.

DOUBLE FACE EXIT LIGHT FIXTURE, WALL OR

CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.

COMBINATION SINGLE FACE EXIT/EMERGENCY LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.

NOTE: REFER TO LIGHT FIXTURE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND MOUNTING HEIGHTS.

### POWER LEGEND:

[INDICATES ABOVE COUNTER (TYP)

DUPLEX RECEPTACLE MOUNTED AT +18"AFF TO

CENTER OF RECEPTACLE (UNO). ABOVE COUNTER

RECEPTACLES SHALL BE +48"AFF (UNO).

DUPLEX ISOLATED GROUND RECEPTACLE MOUNTED AT +18"AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48"AFF (UNO).

DUPLEX RECEPTACLE ON STAND-BY GENERATOR

POWER, MOUNTED AT +18"AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN ABOVE COUNTER SHALL BE +48"AFF (UNO).

FLOOR-MOUNTED DUPLEX OR FOURPLEX RECEPTACLE MOUNTED IN PVC FLOORBOX, OR POKE-THRU

SPECIAL RECEPTACLE, NUMBER REFERS TO "NEMA" CONFIGURATION. MOUNT AT +18"AFF TO CENTER OF RECEPTACLE (UNO).

FOURPLEX RECEPTACLE MOUNTED AT +18"AFF TO
CENTER OF RECEPTACLE (UNO). RECEPTACLES
SHOWN TO BE ABOVE COUNTER SHALL BE +48"AFF

FLUSH MOUNT COMBINATION POWER AND VOICE/DATA FLOORBOX.

\$ SINGLE POLE WALL MOUNT TOGGLE SWITCH. MOUNT AT +48"AFF TO CENTER OF SWITCH.

\$8 WALL MOUNTED OCCUPANCY SENSOR SWITCH. MOUNT

AT +48"AFF TO CENTER OF SWITCH.

WALL MOUNTED OCCUPANCY SENSOR SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48"AFF TO CENTER OF SWITCH.

\$≥ WALL MOUNTED LOW VOLTAGE SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48"AFF TO CENTER OF SWITCH.

OS CEILING MOUNTED OCCUPANCY SENSOR.

DRC1 ROOM CONTROLLER/POWER PACK FOR LIGHT FIXTURE CONTROL. DEVICE SHALL BE CONCEALED IN CEILING.

✓ VOICE OPENING. PROVIDE RING WITH STRING TO
 ✓ ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48"AFF (UNO).

DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48"AFF (UNO).

COMBINATION VOICE/DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48"AFF (UNO).

FLUSH FLOOR MOUNT VOICE/DATA OUTLET MOUNTED IN PVC FLOORBOX.

DISCONNECT SWITCH, STARTER, & COMBINATION
STARTER/DISCONNECT SWITCH. SIZE AS INDICATED ON DRAWINGS.

ELECTRICAL PANEL BOARD, FLUSH OR SURFACE MOUNT

J JUNCTION BOX

NOTE: LINE THROUGH DEVICE INDICATES TO BE MOUNTED ABOVE COUNTERTOP OR CABINET. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS IF NOT INDICATED ON POWER PLAN.

REFER TO LIGHTING CONTROL DEVICE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.

### WIRING LEGEND:

HOMERUN TO PANELBOARD WITH NUMBER AND SIZE OF CONDUCTORS INDICATED ON PLANS.

CONDUCTORS INDICATED ON PLANS.

GROUNDED CONDUCTOR.

CONDUIT OR CIRCUIT BREAK/CONTINUATION.

CONDUIT WITH ENDCAP FOR FUTURE USE.

GROUNDING SOURCE.

### FIRE ALARM LEGEND:

( RETURN DUCT/PLENUM MOUNT SMOKE DETECTOR

### ABBREVIATIONS LEGEND:

AFF ABOVE FINISHED FLOOR

ED EXISTING TO BE DEMOLISHED EM EMERGENCY

TR TAMPER RESISTANT

ER EXISTING TO BE RELOCATED
ETR EXISTING TO REMAIN
GECL GROUND FAULT CURRENT INTERRUE

GFCI GROUND FAULT CURRENT INTERRUPTER
NL NIGHT LIGHT

UNO UNLESS NOTED OTHERWISE
WP WEATHER PROTECTED COVER / GFCI

### ELECTRICAL GENERAL DEMOLITION NOTES:

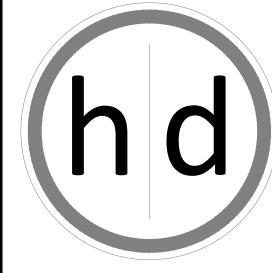
- REFERENCE ARCHITECTURAL DRAWINGS FOR FULL EXTENT OF DEMOLITION WORK AND PHASING. NOTIFY ARCHITECT, ENGINEER, AND/OR OWNER, AS APPLICABLE, OF ANY CONFLICTS OR DISCREPANCIES BETWEEN DRAWINGS AND JOBSITE CONDITIONS PRIOR TO SUBMITTING BID.
- COORDINATE DEMOLITION AND REMOVAL OF EXISTING EQUIPMENT AND LIGHTING SYSTEMS WITH ARCHITECTURAL PHASING DRAWINGS AND OWNER TO ALLOW NECESSARY SYSTEMS TO REMAIN OPERATIONAL DURING CONSTRUCTION.
- UNLESS NOTED OTHERWISE, DISPOSE OF ALL ELECTRICAL EQUIPMENT, LIGHT FIXTURES, AND DEVICES SHOWN TO BE REMOVED. COORDINATE WITH THE OWNER THE ITEMS TO BE SALVAGED, AND THE LOCATION FOR STORAGE. AVOID DAMAGING SALVAGED ITEMS DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION.
- WHERE ALTERATION OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, RACEWAYS, OR WIRING DEVICES AFFECTS EXISTING SURFACES/FINISHES: REPAIR/PAINT AFFECTED SURFACE TO MATCH EXISTING ADJACENT SURFACE IN ACCORDANCE WITH OWNER REQUIREMENTS. MAINTAIN FIRE RATING OF ALL FLOORS, WALLS, AND CEILINGS THAT ARE
- WHERE DEMOLITION WORK INTERRUPTS ELECTRICAL CONTINUITY OF CIRCUITS THAT ARE TO REMAIN IN USE: PROVIDE NECESSARY DEVICES AND RELATED CIRCUITRY TO MAINTAIN ELECTRICAL CONTINUITY IN ACCORDANCE WITH OWNER REQUIREMENTS. RE—CIRCUIT REUSED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, AND WIRING DEVICES PREVIOUSLY POWERED FROM DEMOLISHED EQUIPMENT TO NEW OR TEMPORARY EQUIPMENT AS NEEDED.
- COORDINATE DISCONNECTION OF POWER TO EQUIPMENT BEING DEMOLISHED / REMOVED / RELOCATED WITH OTHER TRADES PRIOR TO START OF WORK. REMOVE ALL ELECTRICAL EQUIPMENT, LIGHT FIXTURES, RACEWAYS, WIRING DEVICES, AND RELATED CIRCUITRY NOT BEING REUSED IN ALL ACCESSIBLE AREAS INCLUDING FLOORS, WALLS, AND CEILINGS THAT ARE TO BE REMOVED.
- ELECTRICAL EQUIPMENT, RACEWAYS, AND RELATED CIRCUITRY ABANDONED IN PLACE SHALL BE PERMANENTLY DISCONNECTED FROM ALL POWER SOURCES, INSULATED FROM CONTACT WITH OTHER LIVE ELECTRICAL WIRING/DEVICES, AND IDENTIFIED AT TERMINATIONS AS NO LONGER BEING IN SERVICE. CABLES/WIRING NOT BEING REUSED SHALL BE REMOVED UNLESS IDENTIFIED FOR FUTURE USE. CARE SHOULD BE TAKEN DURING THE REMOVAL PROCESS TO PROTECT THE EXISTING REUSED CABLES/WIRING FROM DAMAGE.

### ELECTRICAL GENERAL NOTES:

FOR SPECIFIC CODE REFERENCES.

- DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). PRIOR TO BID, CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS AND OTHER TRADES PRIOR TO BID OR START OF WORK.
- PRIOR TO BID OR START OF WORK.

   ELECTRICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION. REFER TO ARCHITECTURAL CODE PLANS
- COORDINATE ELECTRICAL WORK WITH ALL OTHER PROJECT TRADES (E.G. ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, ETC.).
- COORDINATE EXACT LOCATIONS OF ALL LIGHT FIXTURES AND ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWING AND OTHER TRADES PRIOR TO ROUGH—IN. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRE TO PROPERLY INSTALL ALL SYSTEMS.
- INSTALL PULL STRING IN ALL EMPTY CONDUIT/RACEWAY.
  TERMINATE CONDUIT STUB-UP WITH A NYLON BUSHING.
- COLOR FOR RECEPTACLES, SWITCHES, NETWORK DEVICES AND COVER PLATES SHALL MATCH. COLOR SHALL MATCH AND BE SELECTED AS BRIGHT WHITE UNLESS NOTED OTHERWISE. CONFIRM EXACT COLOR WITH ARCHITECT PRIOR TO ORDER.
- ELECTRICAL CONTRACTOR SHALL INSPECT ALL ELECTRICAL EQUIPMENT TO REMAIN. REPORT ANY DEFICIENCIES TO OWNER PRIOR TO START OF WORK.
- ALL CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT) AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC). ALL INSTALLATIONS SHALL BE PER NEC REQUIREMENTS.
- AT CONTRACTOR'S OPTION, MC CABLE CAN BE USED FOR CIRCUITING CONNECTIONS TO RECEPTACLES AND LIGHTING. "HOME RUNS" SHALL BE ROUTED IN CONDUIT. ALL INSTALLATIONS SHALL BE PER NEC REQUIREMENTS.
- CONTRACTOR SHALL VERIFY ALL ROUGH—IN LOCATIONS AND QUANTITIES FOR GENERAL USE POWER AND DATA WITH OWNER AND/OR ARCHITECT PRIOR TO INSTALLATION.
- CIRCUITS FOR GENERAL USE POWER SHALL HAVE A MAXIMUM OF 6 RECEPTACLES ON A CIRCUIT (A SINGLE 4-PLEX RECEPTACLE COUNTS FOR 2 OF THE ALLOWED 6 RECEPTACLES).
- ALL WIRE SIZES LISTED ON PLANS ASSUME COPPER CONDUCTORS ARE USED (UNLESS NOTED OTHERWISE).
- CONTRACTOR SHALL LABEL ALL RECEPTACLES, BOXES, PANELBOARDS, ETC. WITH PANEL, CIRCUIT NUMBER, ETC. PER INDUSTRY STANDARDS. COORDINATE WITH OWNER FOR FINAL PANEL AND EQUIPMENT DESIGNATIONS.
- ALL DEVICES (WHERE APPLICABLE) SHALL BE VERTICALLY IN LINE.



ARCHITECTURE

State Certificate of Authority Number:

15225 Broadmoor Street Overland Park, KS 66223 h | d Architecture, LLC

Name - Gregory D. Highbarger

License -Missouri - 007530

MEP CONSULTANT

**5BY5 Engineers, LLC** 1100 Main Street, Floor 4 Kansas City, MO 64105 (913) 689-9449



# Pizzeria Lakewood Boulevar

Revisions
Number Date Description

5 BY 5 1100 Main Street, 4th Floor Kansas City, MO 64105 Missouri COA: 20170407 913-689-9449 contact@5by5eng.com 5by5eng.com