Flying Biscuit

Summit Orchard
460 NW Chipman Rd.
Lee's Summit, MO 64086

Landlord's Tenant Improvements

Construction Documents

04-24-20

SLAGGIE ARCHITECTS, INC.

DRAWING INDEX

ARCHITECTURAL

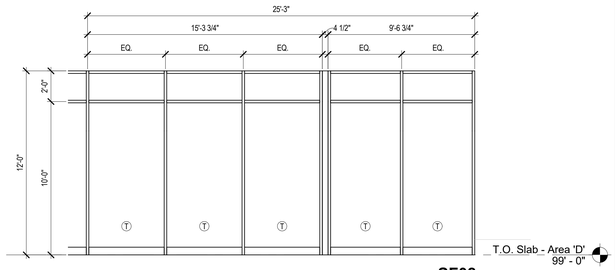
MECHANICAL AND ELECTRICAL

ARCHITECT

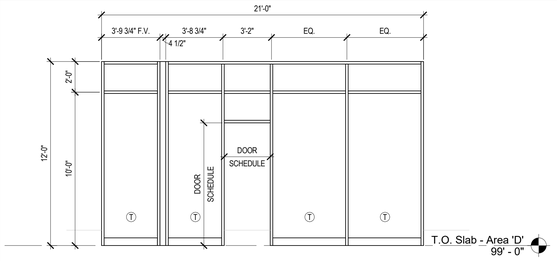
SLAGGIE ARCHITECTS, INC.
4600 MADISON AVENUE, SUITE 350
KANSAS CITY, MO 64112
PHONE: (888) 756-1958

MEP ENGINEER

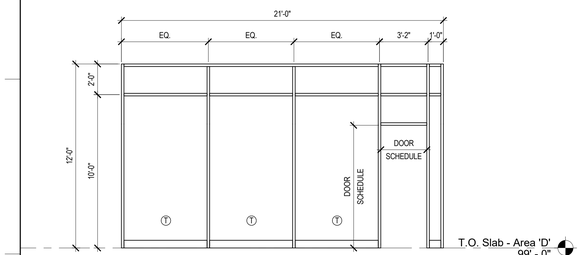
SMITH & BOUCHER ENGINEERS
25501 WEST VALLEY PARKWAY, SUITE 200
OLATHE, KS 66061
PHONE: (913) 345-0617



SF08
1/4" = 1'-0"



SF09
1/4" = 1'-0"



SF10
1/4" = 1'-0"

STOREFRONT GENERAL NOTES:

1. SEE FLOOR PLABS FOR DOOR SWING DIRECTIONS.
2. MANUFACTURER / FABRICATOR TO FIELD VERIFY ALL ALL DIMENSIONS / OPENINGS PRIOR TO GLASS FABRICATION.
3. ALL DOORS TO RECEIVE 1/4" GLASS IN COLOR TO MATCH 0THER GLASS IN RESPECTIVE STOREFRONT UNLESS OTHERWISE NOTED.
4. MANUFACTURER / FABRICATOR TO DETERMINE FINAL LOCATION OF HEAT-STRENGHTENED AND TEMPERED GLASS AS REQUIRED BY LOCAL CODE.
5. PROVIDE HEAD AND SILL FLASHING AS REQUIRED PER STOREFRONT MANUFACTURER'S RECOMMENDATIONS.

FRAME TYPES:

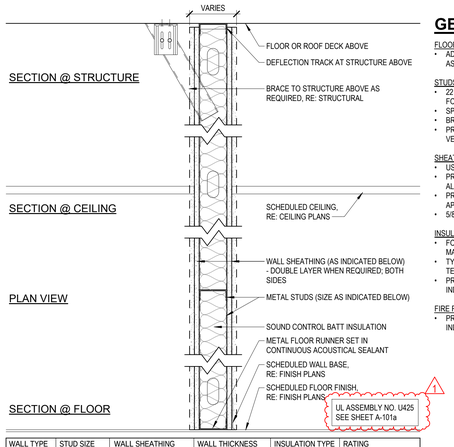
EXTERIOR STOREFRONT (SF):
KAWNEER TRIFAB VERSAGLAZE 451-T
- 2" x 4 1/2" FRAME DIMENSION
- 4 1/2" x 4 1/2" FRAME DIMENSION
- FINISH: CLEAR ANODIZED

GLASS TYPES:

GL-1 — INSULATED LOW-E GLASS
COLOR / FINISH: CLEAR NON-REFLECTIVE GLASS: AGC ENERGY SLECT 40

(T) — PROVIDE TEMPERED GLASS WHERE INDICATED. MANUFACTURER / FABRICATOR TO DETERMINE FINAL LOCATION OF HEAT-STRENGHTENED AND TEMPERED GLASS AS REQUIRED BY LOCAL CODE.

NOTE: ALL STOREFRONT GLASS UNITS TO BE TYPE GL-1 UNLESS NOTED OTHERWISE



WALL TYPE	STUD SIZE	WALL SHEATHING	WALL THICKNESS	INSULATION TYPE	RATING
F1	3 5/8"	1/2" GWB - 1 LAYER	4 5/8"	SOUND BATTS	45 MIN
F2	3 5/8"	5/8" GWB - 1 LAYER	4 7/8"	SOUND BATTS	1 HOUR
F3	3 5/8"	1/2" GWB - 2 LAYERS	5 5/8"	SOUND BATTS	1 1/2 HOUR
F4	3 5/8"	5/8" GWB - 2 LAYERS	6 1/8"	SOUND BATTS	2 HOUR
F5	6"	1/2" GWB - 1 LAYER	7"	SOUND BATTS	45 MIN
F6	6"	5/8" GWB - 1 LAYER	7 1/4"	SOUND BATTS	1 HOUR
F7	6"	1/2" GWB - 2 LAYERS	8"	SOUND BATTS	1 1/2 HOUR
F8	6"	5/8" GWB - 2 LAYERS	8 1/2"	SOUND BATTS	2 HOUR

FIRE BARRIER

Wall Type 'F'
1 1/2" = 1'-0"

GENERAL NOTES:

FLOOR:
- ADJUST BASE HEIGHT FOR THICKNESS OF FLOOR FINISH AS REQUIRED

STUDS:
- 22 GAUGE STEEL (MIN); INCREASE GAUGE AS REQUIRED FOR SPECIFIC HEIGHT REQUIREMENTS, RE: STRUCTURAL
- SPACING AT 16" O.C. TYPICAL, U.N.O.
- BRACE TO STRUCTURE ABOVE AS REQUIRED
- PROVIDE DEEP SLOTTED TRACK TO ALLOW FOR 1" VERTICAL DEFLECTION AT ROOF ONLY

SHEATHING:
- USG TYPE 'X' GYPSUM WALL BOARD (GWB) TYIPCAL, U.N.O.
- PROVIDE MOISTURE RESISTANT GWB (GREENBOARD) AT ALL RESTROOM WALLS
- PROVIDE CEMENT BOARD AT ALL CERAMIC TILE APPLICATIONS, U.N.O
- 5/8" THICK, U.N.O. (AS INDICATED PER WALL TYPE TABLE)

INSULATION:
- FORMALDEHYDE FREE FIBERGLASS EQUAL TO JOHNS MANVILLE OR OWENS CORNING
- TYPICALLY OCCURS IN DEMISING WALLS BETWEEN TENANT SPACES
- PROVIDE THERMAL BATTS AT EXTERIOR WALLS AS INDICATED ON PLAN DETAILS AND WALL SECTIONS

FIRE RATING:
- PROVIDE FIRE RATED CONSTRUCTION ONLY WHERE INDICATED ON PLANS

DRAWING SYMBOL LEGEND

SYMBOL	NAME	DESCRIPTION
XXX	NEW DOOR IN NEW WALL	NEW DOOR (#XXX) AND FRAME IN NEW WALL. SEE DOOR SCHEDULE FOR DOOR INFORMATION.
SF#	STOREFRONT	EXTERIOR ALUMINUM STOREFRONT. SEE FRAME TYPE ELEVATIONS FOR DETAILS. SF# INDICATES FRAME # ON FRAME TYPES SHEET.
DS	DOWNSPOUT	6"x6" PREFINISHED (KYNAR 500) ALUMINUM SHOP-FABRICATED BOX DOWNSPOUT FROM GUTTER OR SCUPPER ABOVE. CONTINUE TO UNDERGROUND STORM DRAIN SYSTEM PER CIVIL DRAWINGS U.N.O. SEE EXTERIOR ELEVATIONS FOR EXTERIOR FINISHES. HIDDEN SEAM – TYPICAL
	ELEVATION	HEIGHT ABOVE FINISH FLOOR ELEVATION.
2-HOUR X 3'-6"	WALL TYPE TAG	WALL TYPE SYMBOL INDICATES TYPE OF WALL CONSTRUCTION WITH FIRE RATING AND HEIGHT WHERE APPLICABLE. REFER TO WALL TYPES (SHEET A-002) FOR DETAILS.
X / XX	ENLARGED PLAN OR DETAIL TAG	ENLARGED DETAIL SYMBOL: INDICATES A PORTION OF THE DRAWING WHICH IS ENLARGED OR DETAILED. REFER TO SHEET AND DRAWING # INDICATED FOR ASSOCIATED DRAWING.
X / XX	WALL SECTION TAG	SECTION SYMBOL: INDICATES LOCATION OF SECTION CUT AND DIRECTION VIEWED. REFER TO SHEET AND DRAWING # INDICATED FOR ASSOCIATED SECTION.
X.X	GRID LINE MARKER	STRUCTURAL GRID MARKER. REFERS TO STRUCTURAL ENGINEERING DRAWINGS' GRID LINE NUMBERING SYSTEM.

GENERAL NOTES

1. ALL NEW CONSTRUCTION SHALL MEET LATEST EDITIONS OF ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES.
2. BUILDING PERMIT WILL BE REQUIRED FOR THE PROJECT. PERMIT SHALL BE OBTAINED AND PAID FOR BY THE GENERAL CONTRACTOR.
3. CONTRACTOR SHALL VISIT THE JOB SITE AND SHALL REVIEW THE CONTRACT DOCUMENTS TO FAMILIARIZE HIMSELF WITH THE REQUIREMENTS AND INTENT OF THE SCOPE OF WORK PRIOR TO BID. ANY DEFICIENCIES OR DISCREPANCIES DISCOVERED SHALL BE REPORTED TO THE PROJECT MANAGER OR THE ARCHITECT FOR REVIEW AND CLARIFICATION PRIOR TO COMMENCING ANY WORK.
4. EACH CONTRACTOR AND SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF HIS WORK WITH THE WORK OF SUB-CONTRACTORS OR OTHER CONTRACTORS.
5. WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY. QUALITY MATERIALS SHALL BE USED THROUGHOUT. ALL WORK SHALL BE DONE IN A MANNER SO AS TO MATCH ADJACENT WORK AND FINISHES AND AS APPROVED BY OWNER.
6. CONTRACTORS SHALL BE RESPONSIBLE FOR CONTAINING THEIR WORK WITHIN THE WORK AREA AND PROTECTING THE PUBLIC FROM INJURIES AT ALL TIMES. CONTRACTOR SHALL SECURE THE WORK AT THE END OF EACH WORK DAY.
7. KEEP PREMISES BROOMED CLEAN AT ALL TIMES FROM FOREIGN MATERIAL CREATED UNDER THE CONTRACT. PROVIDE TARPAULINS TO PROTECT ALL FINISHES, SURFACES, AND EQUIPMENT.
8. AREAS FOR MATERIAL STORAGE, TRASH DISPOSAL, WORKMEN'S PARKING, ETC., SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
9. ALL WOOD BLOCKING AND PLYWOOD BACKING SHALL BE FIRE RETARDANT TREATED.
10. ALL DIMENSIONS SHALL BE VERIFIED BY CONTRACTOR.

CODE REVIEW

ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS AND DRAWINGS, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES AND REGULATIONS OF ALL GOVERNING BODIES INVOLVED.

PROJECT INFORMATION SUMMARY:

BUILDING OCCUPANCY:	GROUP A2
BUILDING CONSTRUCTION CLASS:	TYPE IIB
TENANT SPACE AREA:	3080.06 S.F.
BUILDING PROTECTED BY AUTOMATIC SPRINKLER SYSTEM:	YES
BUILDING IS PROTECTED BY AUTOMATIC FIRE ALARM SYSTEM (NFPA 70 AND NFPA 72):	YES

APPLICABLE CODES:

BUILDING CODE:	INTERNATIONAL BUILDING CODE	2018 EDITION
MECHANICAL CODE:	INTERNATIONAL MECHANICAL CODE	2018 EDITION
PLUMBING CODE:	INTERNATIONAL PLUMBING CODE	2018 EDITION
ELECTRICAL CODE:	NATIONAL ELECTRIC CODE	2017 EDITION
FIRE CODE:	INTERNATIONAL FIRE CODE	2018 EDITION
GAS CODE:	INTERNATIONAL FUEL GAS CODE	2018 EDITION
ANSI A117.1:	ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES	2017 EDITION

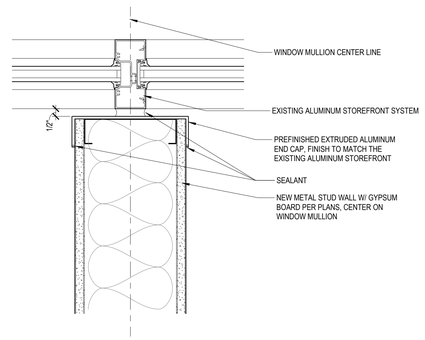
FIRE-RESISTANCE - BUILDING ELEMENTS (TABLE 601):

FOR TYPE IIB CONSTRUCTION:	
PRIMARY STRUCTURAL FRAME:	0 HRS
BEARING WALLS (EXTERIOR AND INTERIOR):	0 HRS
NONBEARING WALLS - EXTERIOR:	PER TABLE 602
NONBEARING WALLS - INTERIOR:	0 HRS
FLOOR CONSTRUCTION:	0 HRS
ROOF CONSTRUCTION:	0 HRS

FIRE-RESISTANCE FOR EXTERIOR WALLS - FIRE SEPARATION DISTANCE (TABLE 602):

OCCUPANCY GROUP B	
X < 5	1 HR
5' ≤ X < 10'	1 HR
10' ≤ X < 30'	0 HR
X > 30'	0 HRS

NOTE:
OCCUPANCY LOAD AND EXITING WILL BE PROVIDED IN THE TENANT FINISH PLANS SUBMITTED FOR EACH INDIVIDUAL TENANT



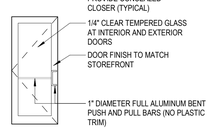
Plan Detail 2
3" = 1'-0"

DOOR #	ROOM #	WIDTH	HEIGHT	TYPE	FRAME TYPE	HEAD DETAIL	JAMB DETAIL	HDWR. GROUP #	COMMENTS
E001	AREA E	3' - 0"	8' - 0"	1GWA	AL			1	
E002	AREA E	3' - 0"	8' - 0"	1GWA	AL			1	

DOOR HARDWARE

Hardware Set No. 1 (Single Storefront Aluminum/ Glass Door)

Qty.				
1	Continuous Hinge	CFM-HD1		Pemko
1	Mortise Deadlock	MS1850SN	628	Adams Rite
1	Thumb Turn	4066-01	130	Adams Rite
1	Cylinder, Mortise	DG1 41 101	US32D	Sargent
	w/ interchangeable construction core (exterior face) (store core provided by tenant)			
1	Status Indicator	4089-00	130	Adams Rite
1	Push Bar & Pull	BF 15847	US32D	Rockwood
1	Concealed Closer	2033 H-Bumper	AL	LC
1	Threshold	253SSFG 36" Aluminum Pan		Pemko
1	Adhesive Header Sign	"This Door to Remain Unlocked During Business Hours"		Adams Rite
1	Set Weatherstrip	By Door Manuf.		
1	Door Sweep	By Door Manuf.		



WIDE STILE ALUMINUM STOREFRONT DOOR

1GWA
1/4" = 1'-0"

DOOR TYPE LEGEND

Door Type:
1 = Single
2 = Double
B = Bifold
O = Overhead
P = Pocket
S = Sliding

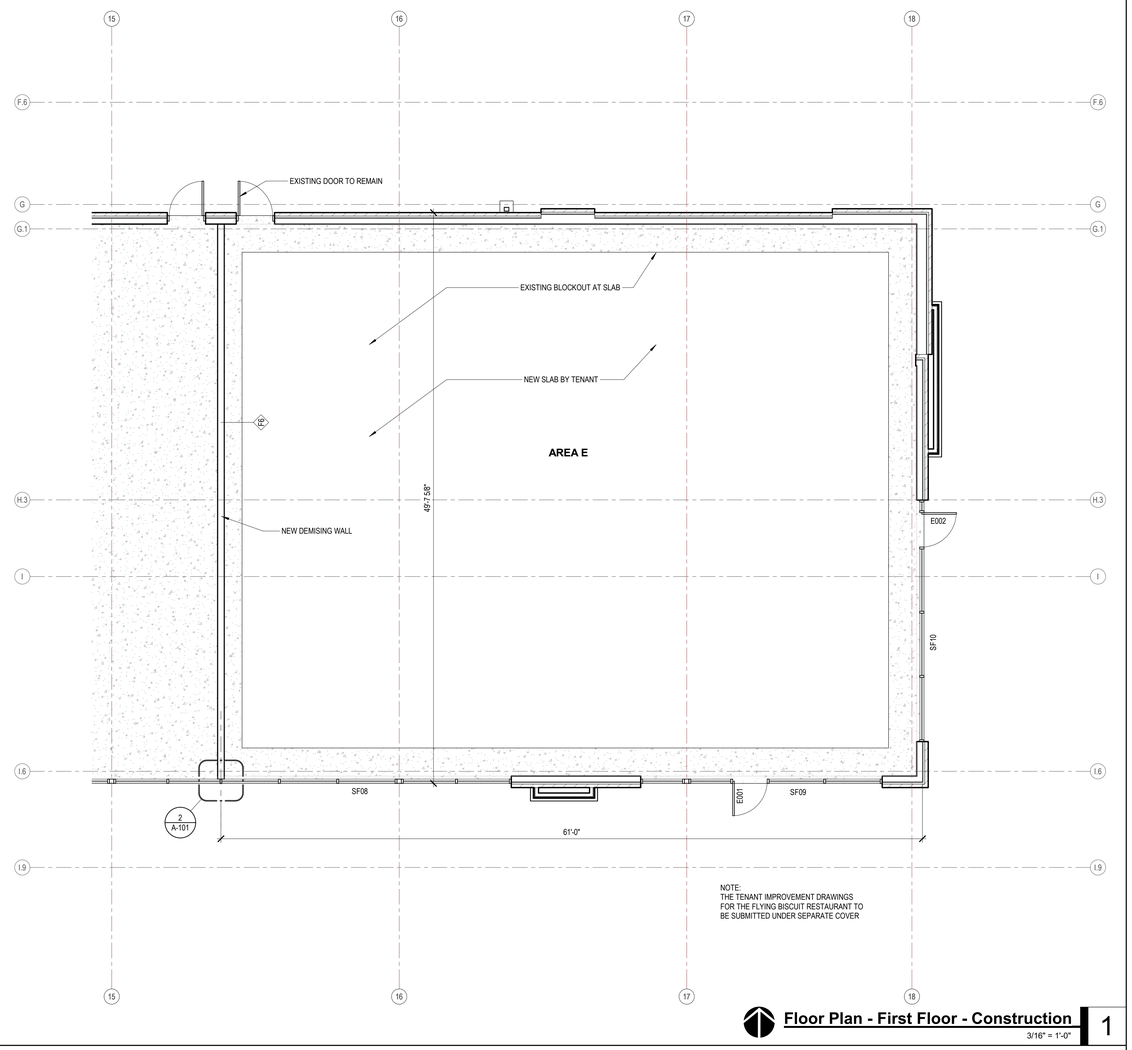
Material:
A = Aluminum
F = Fiberglass
P = Plastic
S = Steel
W = Wood

Door Type Code: (Per Door Schedule) — 1 F S W

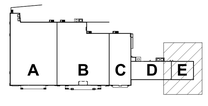
Defining Feature:
B = Fabric
E = Embossed
F = Flush
G = Glass
L = Louver
N = Narrow Lite
S = Security
T = Traffic
V = View Lite(s)

Construction:
C = Coiling
G = Grille
H = Hollow Core
M = Medium Stile
N = Narrow Stile
P = Panel (Sectional)
R = Shutter
S = Solid Core
W = Wide Stile

Example Shown = Single Flush Solid Core Wood



Floor Plan - First Floor - Construction 1
3/16" = 1'-0"



KEY PLAN
NOT TO SCALE

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Kansas City, Missouri • Omaha, Nebraska
888-756-1958
slaggie.com

CHARLES W. KELLER LICENSED A-6386 MISSOURI ARCHITECT 4-24-20

Flying Biscuit
Landlord's Tenant Improvements

Summit Orchard
460 NW Chipman Rd.
Lee's Summit, MO 64086

#	Revisions:	
1	Add-01 City Comments	05-01-2020

Project #: 180902-04

Construction Documents
04-24-20

FIRST FLOOR CONSTRUCTION PLAN

A-101

UL Product iQ™

BXUV.U425

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U425

March 05, 2020

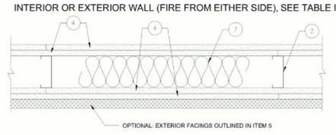
Bearing Wall Rating — 3/4 Hr., 1, 1-1/2 or 2 Hr.

(See Items 2, 4 and 5)

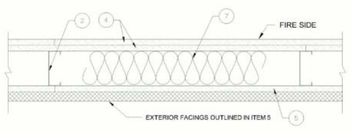
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

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

INTERIOR OR EXTERIOR WALL (FIRE FROM EITHER SIDE), SEE TABLE I



EXTERIOR WALL (FIRE FROM INTERIOR SIDE ONLY), SEE TABLE II



1. **Steel Floor and Ceiling Tracks —** (Not Shown) — Top and bottom tracks of wall assemblies shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 MSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C.

2. **Steel Studs —** Min 3-1/2 in. wide, No. 20 MSG (0.0329 in., min bare metal thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC (or 16 in. OC when Item 5b is used). Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.

2A. **Steel Studs — Framing Members* —** In lieu of Item 2 — Min 3-1/2 in. wide, No. 20 MSG (0.0329 in., min bare metal thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC (or 16 in. OC when Item 5b is used). Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.
EB METAL INC — NITROSTUD

2B. **Steel Studs — Framing Members* —** In lieu of Item 2 — Min 3-5/8 in. wide, No. 20 MSG (0.036 in. min. thickness) corrosion protected cold formed steel studs designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC (or 16 in. OC when Item 5b is used). Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.
BAILEY METAL PRODUCTS LTD

3. **Lateral Support Members —** (Not Shown) — Where required for lateral support of studs, support may be provided by means of steel straps, channels or other similar means as specified in the design of a particular steel stud wall system.

4. **Gypsum Board* — Any 1/2 in. thick UL Classified Gypsum Board that is eligible for use in Design No. X515. Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. U501, GS12 or U305.** Gypsum board bearing the UL Classification Marking as to Fire Resistance. Applied vertically with joints between layers staggered. Outer layer of 3 layer construction may be applied horizontally unless specified below. The thickness and number of layers and percent of design load for the 45 min, 1 hr, 1-1/2 hr and 2 hr ratings are as follows:

TABLE I

Interior or Exterior Walls (Fire From Either Side)

Rating	Wallboard Protection Both Sides of Wall - No. of Layers & Thkns of Board In. Each Layers	% of Design Load
45 min	1 layer, 1/2 in. thick	100
1 hr	1 layer, 5/8 in. thick	100
1-1/2 hr	2 layers, 1/2 in. thick	100
2 hr	2 layers, 5/8 in. thick or	80
2 hr	3 layers, 1/2 in. thick	100
2 hr	2 layers, 3/4 in. thick	100

Note: Exterior facings allowed for use with Item 5 are also allowed to be installed on one side of the above walls.

TABLE II

Exterior Walls (Fire from Interior Side Only)

Rating	Wallboard Protection on Interior Side of Wall - No. of Layers & Thkns of Board In. Each Layers	% of Design Load
45 min	1 layer, 5/8 in. thick	100
1 hr	2 layers, 1/2 in. thick	100
1-1/2 hr	2 layers, 5/8 in. thick	100
2 hr	3 layers, 1/2 in. thick	100
2 hr	2 layers, 3/4 in. thick	100

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNX.R19374

CABOT MANUFACTURING ULC (View Classification) — CKNX.R25370

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R3660

CGC INC (View Classification) — CKNX.R19751

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C (View Classification) — CKNX.R18482

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717

LOADMASTER SYSTEMS INC (View Classification) — CKNX.R11809

NATIONAL GYPSUM CO (View Classification) — Riyadh, Saudi Arabia — CKNX.15208

NATIONAL GYPSUM CO (View Classification) — CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

PANEL REY S A (View Classification) — CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNX.R19262

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNX.R38438

USG MEXICO S A DE C V (View Classification) — CKNX.R16089

4A. **Gypsum Board —** Nom. 3/4 in. gypsum board applied vertically with joints between layers staggered. The thickness and number of layers and percent of design load for the 2 hr ratings are shown in the table above.
CGC INC — Types AR, IP-AR, IP-X3, or ULTRACODE

UNITED STATES GYPSUM CO — Types AR, IP-AR, IP-X3, or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Types AR, IP-AR, IP-X3, or ULTRACODE

4B. **Gypsum Board* —** (As an alternate to Item 4) — 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 joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers on interior walls (multilayer systems) staggered a min of 12 in.
GEORGIA-PACIFIC GYPSUM L L C — GreenGlass Type X, Type DGG

NATIONAL GYPSUM CO — Type FSW-6.

CERTAINTEED GYPSUM INC — GlasRoc

4C. **Gypsum Board* —** (As an alternate to Item 4) — 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically and secured as described in Item 6.
GEORGIA-PACIFIC GYPSUM L L C — Type X ComfortGuard Sound Deadening Gypsum Board.

NATIONAL GYPSUM CO — Type SBWB

4D. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 5/8 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 E5.

4E. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 4) — Nominal 5/8 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 527.

4F. **Gypsum Board* —** (As an alternate to 5/8 in. Type FSW in Item 4) — Nom. 5/16 in. thick gypsum panels applied vertically. Two layers of 5/16 in. for every single layer of 5/8 in. gypsum board described in Item 4. Horizontal joints on the same side need not be staggered. Inner layer of each double 5/16 in. layer attached with fasteners, as described in item 4, spaced 24 in. OC. Outer layer of each double 5/16 in. layer attached per Item 4.
NATIONAL GYPSUM CO — Type FSW.

4G. **Wall and Partition Facings and Accessories* —** (As an alternate to 5/8 in. thick board as outlined in Item 4) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened to studs as described in Item 6
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

5. **Gypsum Boards —** For exterior walls, Rating from Interior Side Only - 1/2 or 5/8 in. thick Classified or unclassified gypsum boards applied vertically and attached to studs and runner tracks with 1 in. long Type S-12 bugle head screws spaced 12 in. OC, along studs and tracks. One of the following exterior facings are to be applied over the gypsum board.

a. **Siding, Brick, or Stucco —** Aluminum siding, steel siding, brick veneer, or stucco attached to studs over gypsum sheathing and meeting the requirements of local code agencies. When a min 3-3/4 in. thick brick veneer facing is used, the Exterior Wall Rating is applicable with exposure on either face. Brick veneer wall attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick. When a min 3-3/4 in. thick brick veneer facing is used, Foamed Plastic (Item 10) may be used.

b. **Cementitious Backer Units* —** 1/2 or 5/8 in. thick, attached vertically or horizontally to steel studs over gypsum sheathing with 1-5/8 in. long, Type S-12, corrosion resistant, wafer head steel screws, spaced 8 in. OC. Studs spaced a max of 16 in. OC. Joints covered with glass fiber mesh tape.
UNITED STATES GYPSUM CO — Type DCB

NATIONAL GYPSUM CO — Type PermBase, or DuraBacker

c. **Fiber-Cement Siding —** Fiber-cement exterior sidings including smooth and patterned panel or lap siding.

d. **Molded Plastic* —** Solid vinyl siding mechanically secured to framing members in accordance with manufacturer's recommended installation details.
ALSIDE, DIV OF ASSOCIATED MATERIALS INC

e. **Wood Structural Panel or Lap Siding —** APA Rated Siding, Exterior, plywood, OSB or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlay, brushed, grooved and lap siding.

f. **Building Units* —** (Not Shown) — 3 in. thick 18 x 24 in. cellular glass blocks, applied to the gypsum board (Item 5) with PC 88 adhesive or fastened with F anchors spaced a maximum 24 in. OC. F anchors fastened to framing members with 1-1/4 in. long #6 drywall screws.
PITTSBURGH CORNING CORP — Type FoamGlas

6. **Fasteners —** (Not Shown) — Screws used to attach wallboard to studs: self-tapping bugle head sheet steel type, spaced 12 in. O.C. First layer Type S-12 by 1 in. long for 1/2 and 5/8 in. thick wallboards and 1-1/4 in. long for 3/4 in. thick wallboard. Second layer Type S-12 by 1-5/8 in. long for 1/2 and 5/8 in. thick wallboards and 2-1/4 in. long for 3/4 in. thick wallboard. Third layer Type S-12 by 1-7/8 in. long. Fasteners when Item 4G is used: First layer #6 x 2 in. long drywall screw spaced 8 in. OC along the perimeter and 12 in. OC in the field. Second layer #6 x 4 in. long drywall screw spaced 8 in. OC along the perimeter and 12 in. OC in the field. Horizontal joints to be staggered 12 in. between layers.

7. **Batts and Blankets* —** Placed in stud cavities of all exterior walls. May or may not be used in interior walls. Any glass fiber or mineral wool batt material bearing the UL Classification Marking as to Fire Resistance, of a thickness to completely fill stud cavity.
See **Batts and Blankets*** (BZJZ) Category for names of Classified companies.

7A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 7) — (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^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C — INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

7B. **Fiber, Sprayed* —** As an alternate to Item 7 — 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. Nominal dry density of 4.58 lb/ft^3.
NU-WOOL CO INC — Cellulose Insulation

7C. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 7) — 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 minimum dry density shall be 4.30 lbs/ft^3.
INTERNATIONAL CELLULOSE CORP — Cellbar-RL

7D. **Fiber, Sprayed* —** (Optional) — As an alternate to Batts and Blankets (Item 7) — Spray applied mineral wool insulation. The fiber is applied with adhesive, at a minimum density of 4.0 pcf, to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

8. **Joint Tape and Compound —** (Not Shown) — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layer. Perforated paper tape, 2 in. wide, embedded in first layer of compound over all joints of outer layer.

9. **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 each intersecting stud with 1/2 in. long Type S-12 steel screws.

10. **Foamed Plastic* —** (Optional, Not Shown) For use with brick veneer as outlined in Item 5a - Maximum 2 in. thick rigid polystyrene insulation attached to studs with fasteners of sufficient length to penetrate the foam and

3/16 in. into the stud. A minimum 1 in. air space is to be maintained between the outer surface of the foamed plastic and the inner surface of the brick veneer.
ATLAS MOLDED PRODUCTS, A DIVISION OF ATLAS ROOFING CORPORATION — Type ThermalStar

OWENS CORNING SCIENCE AND TECHNOLOGY, LLC

10A. **Foamed Plastic* —** (Optional, Not shown) — For use with brick veneer as outlined in Item 5a - Mortar drop protection - Foamed plastic with mortar control device attached, continuous, by drainage holes at bottom of air space behind brick veneer.
OWENS CORNING SCIENCE AND TECHNOLOGY, LLC — WeepGuard

10B. **Foamed Plastic* —** Polyisocyanurate foamed plastic insulation boards, any thickness, Classified in accordance with BRYX and / or CCVW. May be used with any exterior facing shown under items 5a, 5c, 5d and 5e.
ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE

DUPONT DE NEMOURS, INC. — Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Styliwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Type "Xci-Class A", "Xci 286", "Xci Foil (Class A)", "Xci CG", "Xci Foil", "Xci CG NH", "Xci Foil NH"

RMAX OPERATING L L C — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

10C. **Building Unit* —** Polyisocyanurate foamed plastic composite insulation boards, any thickness, Classified in accordance with BZXX. May be used with any exterior facing shown under items 5a, 5c, 5d and 5e.
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Type "Xci NB" and "Xci Ply"

LAMINATORS INC — Type "Omega ci"

RMAX OPERATING L L C — Types Thermasheath-SI, ECOBASEci, ECOMAXci FR Ply, ThermaBase-CI, "ECOMAXci Ply", attached to studs with Type S screws long enough to penetrate the studs a minimum of three threads.

10D. **Foamed Plastic* —** (As an alternate to Item 10 - Not Shown) — Expanded polystyrene insulation installed to a maximum nominal density of 2.0 lb/ft^3.

BASF CORP STYRENIC FOAMS DIV — — Type Neopor "F" Series

11. **Cementitious Backer Units* —** (Optional, Not Shown - For Use as an additional layer over required gypsum board(s) - 7/16 in., 1/2 in., 5/8 in., 3/4 in. or 1 in. thick, min. 32 in. wide. - Applied vertically or horizontally with vertical joints centered over studs. Fastened to studs and runners with cement board screws of adequate length to penetrate stud by a minimum of 3/8 in. spaced a max of 8 in. OC. When 4 ft. wide boards are used, horizontal joints need not be backed by framing.
NATIONAL GYPSUM CO — Type DuraBacker, PermaBase, DuraBacker Plus, or PermaBase Plus

12. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) — For use with Item 1, Items 2 and 2A, Item 3, Item 4 to 4B, Item 6, Item 7, Item 8 and Item 9. For maximum fire rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 4 to 4B), install ReflexXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When ReflexXor 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 4B shall be installed over the membrane. The additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 4 to 4B 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 7. On the other side of the wall prior to the installation of the Gypsum Board install Resilient Channels , 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with drywall screws and washers spaced at 16 in. OC on the perimeter of the 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 (and 4 alternates) with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
MSL — ReflexXor membrane, SONOpan panel

13. **Wall and Partition Facings and Accessories* —** (Optional, Not Shown) - **When the Wall Assembly is used as an External Wall, on the External side of the wall one of the following Wall and Partition and Facing Accessories may be used, refer to items (A) to (C) below.**

A. **Non Insulated System with Metal Channels —** Install moisture barrier over the Gypsum Board Item 4 and Install Acry Metal Channels vertically at a horizontal spacing not greater than 24 inches OC over the moisture barrier. Acry Metal Channels attached through the moisture barrier and the Gypsum Board to the Steel Studs Item 2 using fasteners specified by the manufacturer and fasteners spaced max., 24 in. OC. Install Acrytec Panels on Acry Metal Channels using 1-1/4" long corrosion coated stainless steel screws spaced at a max spacing of 24 inches OC, along with manufacturer's approved adhesive (3M 540 or Tremco Vulcum 116). Adhesive to be applied in a zigzag pattern along every channel. Joint treatment in between panels shall be Tremco illmod 600 pre compressed polyurethane foam sealant.

B. **Insulated System with Metal Channels —** Install moisture barrier over the Gypsum Board Item 4. Install galvanized Z girt channels specified by the manufacturer over the moisture barrier and the Gypsum Board Item 4. Z girt channels to be installed horizontally at a max. spacing of 24" OC. Z girt channels attached through the Gypsum Board and the moisture barrier to the Steel Studs Item 2, with screws provided by the manufacturer at a max spacing of 24 inches OC. Install mineral wool insulation between the Z girts. Maximum thickness of mineral wool insulation not to exceed 6 in. As per manufacturer's instructions install Acry Metal Channels vertically over the Z girts at a max horizontal spacing of 24 in. OC. Acrytec Panels installed on Acry channel with 1-1/4" long corrosion coated stainless steel screws at a max spacing of 24 in. OC, along with manufacturers approved adhesive (3M 540 or Tremco Vulcum 116). Adhesive to be applied in a zigzag pattern along every channel. Joint treatment in between panels to be Tremco illmod 600 pre compressed polyurethane foam sealant.

C. **Non Insulated Wood Strapping System —** Install moisture barrier over the Gypsum Board Item 4 and Install 1" x 3" wood strapping vertically at a horizontal spacing not greater than 24 inches OC., over the moisture barrier. 1" x 3" wood strapping attached through the moisture barrier and the Gypsum Board to the Steel Studs Item 2, using fasteners specified by the manufacturer and fasteners spaced max., 24 in. OC. Acrytec Panels to be installed on the 1" x 3" wood strapping using manufacturers approved stainless steel fasteners spaced at maximum 24 inches OC along with Tremco Vulcum 116 adhesive applied in a zigzag pattern along every wood strap. Joint treatment in between panels to be Tremco illmod 600 pre compressed polyurethane foam sealant.

D. **Insulated Wood Strapping System —** Install moisture barrier over the Gypsum Board Item 4. Install Extruded Polystyrene Insulation over moisture barrier, max thickness of insulation not to exceed 4 inches. Install 1" x 3" wood strapping vertically at a horizontal spacing not greater than 24 inches OC. Wood strapping attached through the Insulation, the Gypsum Board and moisture barrier to the Steel Studs Item 2 using fasteners specified by the manufacturer and fasteners spaced max. 24 in. OC. Acrytec Panels to be installed over the wood strapping using manufacturers approved stainless steel fasteners at a max spacing of 24 in. OC and Tremco Vulcum 116 adhesive applied in a zigzag pattern along every wood strap. Joint treatment in between panels to be Tremco illmod 600 pre compressed polyurethane foam sealant.
ACRYTEC PANEL INDUSTRIES — Nominal 5/8 inch thick Acrytec Panel.

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

Last Updated on 2020-03-05

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A-6386
MISSOURI
ARCHITECT
12-31-20

Flying Biscuit
Landlord's Tenant Improvements

Summit Orchard
460 NW Chipman Rd.
Lee's Summit, MO 64086

Revisions:

#		
1	Add-01 City Comments	05-01-2020

Project #: 180902-04

Construction Documents

04-24-20

UL ASSEMBLY U425

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